



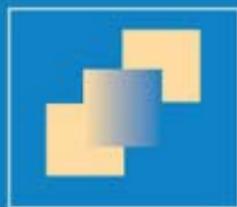
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Cognitive Behaviour Therapy for Children and Families

THIRD EDITION

Edited by

**Philip Graham and
Shirley Reynolds**



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Cognitive Behaviour Therapy for Children and Families

Third Edition

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Edited by

Philip Graham

Institute of Child Health, London, UK

Shirley Reynolds

Charlie Waller Institute, School of Psychology and Clinical Language Sciences,
University of Reading, Reading, UK



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Contributors

Jennifer L. Allen

Department of Psychology and
Human Development,
Institute of Education,
University of London,
London, UK

Inés Baños

Paediatric Psychology,
Royal Berkshire Hospital,
Reading, UK

Isabel Boege

Child and Adolescent Psychiatry,
ZfP-Suedwuerttemberg,
Ravensburg, Germany

Susan M. Bögels

Child Development and Education,
University of Amsterdam,
Amsterdam, the Netherlands

Sam Cartwright-Hatton

School of Psychology,
University of Sussex,
UK

Sarah Clark

Department of Psychological Sciences,
Norwich Medical School,
University of East Anglia,
Norwich, UK

Judith A. Cohen

Temple University School
of Medicine,
Allegheny General Hospital Department
of Psychiatry,
Pittsburgh, PA, USA

Cathy Creswell

MRC Clinical Scientist Fellow,
School of Psychology and Clinical
Language Sciences,
University of Reading,
Reading, UK

Esther I. de Bruin

University of Amsterdam,
Amsterdam, the Netherlands

Jessica Deighton

CAMHS EBPU,
Anna Freud Centre,
University College,
London, UK

Helen F. Dodd

Centre for Emotional Health,
Department of Psychology,
Macquarie University,
Australia

Caroline L. Donovan

School of Psychology,
Griffith University, Australia

Nicola Dummett

Leeds Community Healthcare
NHS Trust,
University of Leeds,
Leeds, UK

Sandra Dunsmuir

Educational Psychology Group
Research Department of Clinical,
Educational and Health Psychology,
University College,
London, UK

Melinda Edwards MBE

Paediatric Psychology Service,
Evelina Children's Hospital,
London, UK

Lara J. Farrell

School of Applied Psychology,
Griffith Health Institute,
Griffith University, Australia

Iyabo A. Fatimilehin

Just Psychology CIC,
Manchester, UK

Andrew Fugard

CAMHS EBPU,
Anna Freud Centre,
University College,
London, UK

Peter Fuggle

Islington Child and Adolescent Mental
Health Service (CAMHS),
Northern Health Centre,
London, UK

Philip Graham

Institute of Child Health,
London, UK

Alice M. Gregory

Psychology Department,
Goldsmiths College,
University of London,
London, UK

Amira Hassan

Child Rehabilitation Centre,
Rumaiah Hospital,
Hamad Medical Corporation,
Doha, Qatar

Kevin Hilbert

Institute of Clinical Psychology and
Psychotherapy,
Technische Universitaet Dresden,
Dresden, Germany

Jennifer L. Hudson

Centre for Emotional Health,

Department of Psychology,
Macquarie University, Australia

Georgina C. Krebs

King's College London,
Institute of Psychiatry,
Department of Psychology,
London, and
National Clinic for Young People with
Obsessive-Compulsive Disorder and
Related Disorders,
Maudsley Hospital,
London, and
Maudsley NHS Foundation Trust,
London, UK

Jennifer Y. F. Lau

Department of Experimental Psychology,
University of Oxford,
Oxford, UK

Anthony P. Mannarino

Temple University School of Medicine,
Allegheny General Hospital Department
of Psychiatry,
Pittsburgh, PA, USA

Sonja March

School of Psychology,
University of Queensland,
Brisbane, Australia

Ella L. Milliner

School of Applied Psychology,
Griffith Health Institute,
Griffith University,
Australia

Laura K. Murray

Johns Hopkins University School
of Public Health,
Department of International Health,
Baltimore, MD, USA

Lynne Murray

School of Psychology and Clinical
Language Sciences,
University of Reading,
Reading, UK

Carol Newall

Centre for Emotional Health,
Department of Psychology,
Macquarie University, Australia

Thomas H. Ollendick

Child Study Center,
Virginia Polytechnic Institute and State
University,
Department of Psychology,
Blacksburg, VA, USA

Dennis Ougrin

South London and Maudsley NHS
Foundation Trust, and
Child and Adolescent Psychiatry,
King's College London,
London, UK

Ronald M. Rapee

Centre for Emotional Health,
Department of Psychology,
Macquarie University, Australia

Shirley Reynolds

Charlie Waller Institute,
School of Psychology and Clinical
Language Sciences,
University of Reading,
Reading, UK

Natalie Rodriguez

Research Department of Clinical,
Educational and Health Psychology,
University College London,
London, UK

Benjamin C. Schwartzman

University of California,
Los Angeles, CA, USA

Stephen Scott

National Academy of Parenting Research,
Department of Child and Adolescent
Psychiatry,
Institute of Psychiatry,
King's College,
London, UK

Susan H. Spence

Griffith University,
Nathan, Australia

Paul Stallard

Department for Health,
University of Bath,
Bath, UK
Oxford Health NHS Foundation Trust

Ellen Trautmann

Department of Psychology,
University of Kassel,
Kassel, Germany

David Trickey

Consultant Clinical Psychologist

Cynthia M. Turner

King's College London,
Institute of Psychiatry,
Department of Psychology,
London, UK

Saskia van der Oord

Department of Clinical Psychology,
Leuven University,
Leuven, Belgium

Beth Watkins

Eating Disorders Unit,
Department of General Psychiatry,
St George's Hospital Medical School,
London, UK

Miranda Wolpert

CAMHS Evidence-Based Practice Unit
and CAMHS Outcome Research
Consortium,
Research Department of Clinical,
Educational and Health Psychology,
University College London,
London, UK

Jeffrey J. Wood

UCLA Graduate School of Information
and Education Studies,
Los Angeles, CA, USA

Preface

This is the third edition of a book that has established itself as the standard text in the field. The need for another edition was made clear by the popularity of previous editions and by the fact that the field has moved on since the last edition and required updating.

The book mostly consists of new material with a majority of new contributors. Several topics not previously covered are the focus of entirely new chapters, including working with minority ethnic groups, the use of low intensity methods, the use of new technologies to deliver cognitive behaviour therapy and the application of mindfulness techniques with children.

The book is essential reading for all those working in the child and adolescent mental health field because it:

- Is unique in its comprehensive coverage of cognitive behavioural approaches to emotional and behaviour problems in this age group.
- Deals with both theoretical and practical issues relating to all conditions likely to be seen by child and mental health practitioners.
- Is strongly evidence-based.
- Is written by an international panel of contributors who are all authorities in their fields.
- Has been edited to ensure it provides clear, helpful guidance to practitioners.

The book is primarily written for child mental health professionals, especially psychologists, psychiatrists, mental health nurses, social workers and psychotherapists as well as those training in these fields. The book will also be found helpful by paediatricians and general psychiatrists. It is suitable both for trainees and for those with a more advanced knowledge of the subject.

Introduction

Philip Graham and Shirley Reynolds

The first edition of this book was published in 1998. It arose from a realisation that, despite the gradually increasing use of cognitive behaviour therapy (CBT) by child psychologists and psychiatrists, there was no systematic account of its use with children and families. The second edition appeared in 2005 at a time when it was becoming clear that the use of CBT with the young was unlikely to be a passing fashion but was here to stay (Graham, 2005). This third edition marks the establishment of CBT as the mode of therapy indisputably the best supported by scientific evidence for the majority of the conditions with which children and adolescents present to mental health services. The official national curriculum for the major British government NHS initiative ‘Children and Young People’s Improving Access to Psychological Therapies’ (Department of Health, 2011) prescribes the use of CBT for anxiety and depressive states and encourages interventions with a CBT rationale for both conduct disorders and parent education. Further, as the international representation of the contributors to this book illustrates, CBT is flourishing worldwide, at least in the developed world. Strong innovative clinical and research activities in the field have come over recent years from the USA and Australasia as well as from many continental European countries.

The development of the CBT field over the past 15 years has drawn both on previously established traditions in psychology and psychiatry and on new trends in academic studies and clinical work. The need for a ‘therapeutic alliance’ in successfully engaging with children and their families, described by Boege and Ougrin in [Chapter 5](#), resonates strongly with much earlier psychoanalytic ideas. When these authors refer to the ‘relational bond between the therapist and the young person which binds the therapist and the young person together against the ‘pain and vicissitudes of therapy’’, one is inevitably reminded of the concept of transference though of course there are significant differences. In contrast, the approaches to the treatment of anxiety and phobic states described in [Chapters 15](#) and [17](#) still retain a distinct element of behaviourism in their emphasis on desensitisation. Response prevention in the treatment of obsessive-compulsive disorders as described by Clark and Reynolds in [Chapter 18](#) is similarly derived from behaviourist principles. Drawing again on earlier clinical approaches, the introduction of systemic ideas into a CBT formulation of clinical problems, as described by Dummett in [Chapter 6](#), resonates with the family therapy tradition established in the 1970s. In all these cases, as the chapter authors describe, a cognitive component has been incorporated into the pre-existing approach to achieve greater effectiveness.

But there is another tradition in psychology to which CBT has remained faithful in more than one way. Those engaged in the evaluation of therapy are still guided by the principle that it is through the falsification of hypotheses that knowledge advances (Popper, 1959). The randomised controlled trial (RCT) approach (described by Wolpert, Fugard and Deighton in [Chapter 4](#)) to evaluating a new intervention aims to *disprove* that it is superior to existing methods. If there is a failure to disprove this hypothesis then evidence exists that the new method offers a promising way forward. But this can only be a temporary advance in knowledge until the findings from another study show that even this newly gained knowledge needs to be revised or modified. Further, falsificationism permeates many CBT techniques. Socratic questioning, for example, requires clients to think critically of the beliefs they hold that may be maintaining their symptoms. Such questioning encouraging scepticism in the client is central to the CBT approach to delusions in schizophrenia as well as to the cognitive elements engaged in subverting the irrational elements of anxiety, depressive and eating disorders. Karl Popper's continuing influence in clinical child psychology and psychiatry has indeed been under-estimated (Graham, 2013).

Moving forward from traditional psychological theories, researchers have, over recent years, begun to investigate the neuroscientific and genetic basis for the changes brought about by CBT. For example, preliminary studies with adults have suggested that, when adults with obsessive-compulsive disorder were compared with controls, significant therapy-specific changes in normalised regional glucose metabolism were seen after brief, intensive CBT (Saxena *et al.*, 2009). Porto *et al.* (2009) have shown, again in adult patients with anxiety disorders, that CBT modified the neural circuits involved in the regulation of negative emotions. Neuroimaging studies have thus revealed that CBT can indeed change dysfunctions of the nervous system. Very little neuroscientific work of this nature has been carried out in children and adolescents. However in [Chapter 15](#), Newall and her colleagues describe how, by examining the association between treatment response and the serotonin transporter gene promoter region (5HTTLPR), it may become possible to use genetic information regarding the allele configuration of anxious children as a tool to inform treatment choices. In a similar vein, in [Chapter 2](#), Lau, Hilbert and Gregory describe how associations between the serotonin transporter gene variant and increased neural responses to the appraisal of fear in anxious and depressed adolescent patients have been identified. As they say, these findings will need to stand the test of replication in larger samples before they can be regarded as established, but the approach appears promising.

In more adventurous fashion, CBT researchers have been breaking hitherto untouched ground in applying new approaches and new technologies to the treatment of mental health problems in children and adolescents. These are outlined in Section 7 of this book. In [Chapter 22](#), Turner and Krebs describe how more economic use of precious therapist time can be made by the use of 'low-intensity' methods of implementing CBT such as supervised self-help, running groups rather than relying on individual treatment, and delivering therapy by phone rather than face to face. In [Chapter 23](#), Donovan, Spence and March describe how computer-based delivery of CBT has been applied in a variety of disorders, and in some cases shown to be of equal or superior efficacy than face to face methods. Given the increasing ease with which children and adolescents are outpacing their elders in the use of such technology, it is likely that such approaches will, in the future, have greater application in the young than in older clients.

The plethora of so-called third-wave CBT approaches is encroaching strongly on the adult field. These approaches consist of a loose affiliation of various CBT therapies

including: acceptance and commitment therapy (ACT), mindfulness-based cognitive therapy (MBCT) and dialectical behaviour therapy (DBT). In [Chapter 24](#), Bögels, de Bruin and van der Oord describe preliminary work using mindfulness training applied, for example, to parents of children with autistic spectrum disorder and to adolescents with anxiety states. The cognitive limitations of younger children described by Stallard in [Chapter 3](#) would suggest that these methods might have less applicability in the younger age groups. Even with this age group however, the evidence for the effectiveness of trauma-focused CBT as described by Trickey in [Chapter 16](#), while requiring considerable competence in what might well be regarded as introspective mindfulness, is reasonably strong. The flexibility of CBT, even with young people who lack theory of mind (or mindfulness), is illustrated by the successful use of CBT with children who have autistic spectrum disorders as described by Wood and Schwartzman in [Chapter 13](#). Much of this flexibility involves the use of parents in therapy with their child and, in [Chapter 7](#), Creswell, Cartright-Hatton and Rodriguez describe a range of methods and techniques for delivering CBT to children through, and in collaboration with, their parents.

Now that CBT has acquired a dominant position among the so-called ‘talking therapies’ it has inevitably become a target for criticism. The label of ‘reductionist’ has been attached to it in hostile fashion. In fact, all constructions of the human mind inevitably and indeed appropriately reduce the complexity that governs our behaviour. The important principle was formulated by Einstein when he wrote ‘everything should be as simple as it is, but not simpler’. The need to avoid over-simplicity is particularly important in relation to the use of questionnaires which, while having their uses for screening purposes, are no substitute for dialogue in assessment and therapy. It would indeed be regrettable if CBT formed part of the tick-box culture that pervades so much of our lives.

Interestingly, perhaps because of its dominant position in psychology, CBT has become a target attacked by novelists, psychologists’ main competitors in the understanding of the vagaries of human behaviour. In 1923, D. H. Lawrence wrote that psychoanalysis was in danger of becoming a ‘public danger’. James Joyce referred mockingly to Freud and Jung as the ‘Viennese Tweedledee and the Swiss Tweedledum’ (Gilbert, 1957). In 2011, no less a novelist than Ali Smith in her novel *There But For The . . .* depicts Jen, the most unsympathetic character in her book, shouting at another woman in tears at a dinner party that six sessions of CBT would ‘sort her out’ (p. 156). Jen ‘shouts it like a mad person, and she shouts it over and over, until she has said it about six times’. In a laudatory review of a book by a contemporary psychoanalyst, Jacqueline Rose refers derisively to CBT. She praises Smith for having conveyed in her novel that ‘there is something mad about a form of therapy whose vocabulary – get a grip, get CBT – possesses such frantic conviction’ (Rose, 2011).

It would indeed be madness for CBT therapists to regard their approach as a panacea for all mental health problems. It is, at the moment, the intervention for mental health problems most strongly supported by the evidence. Further, in some forms of disorder, especially anxiety states and obsessive-compulsive disorder, the failure to use it might be regarded as a valid reason to sue for negligence. But the findings from the controlled trials make it clear that in most situations, while producing improvement, it by no means provides a cure, if indeed cure is an appropriate concept to use in relation to mental disorders. Further, some of the improvement obtained with the use of CBT is probably attributable to the non-specific effects of the therapy, especially of the therapist–client relationship (McQueen & Smith, 2012). It is for this reason that it is so important that

research activity, especially in the refinement of clinical methods and in scientific evaluation, is increased in future years. In the final chapter in this book we point to what seem to us to be the most promising directions such research might take.

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Section 1

Developmental cognitive theory and clinical practice

Anxiety and depression in young people: developmental considerations

Jennifer Y. F. Lau, Kevin Hilbert and Alice M. Gregory

Introduction

Anxiety and depression are common, disabling and costly (see Alonso *et al.*, 2004; Rice & Miller, 1998; Sobocki *et al.*, 2006). Anxiety disorders are characterised by persistent fears and worries, while depression involves chronic low mood and loss of pleasure, with effects on physical and cognitive function. Rising prevalence rates in recent cohorts (Kessler *et al.*, 2007) call for a better understanding of the root causes of anxiety and depression, and the development of preventive interventions to target these causes. Late childhood and adolescence may reflect an important focal point for studying the onset of anxiety and depression. Data show increases in the rates of anxiety and depression in the transition to, and across adolescence (Bartels *et al.*, 2011; Hankin *et al.*, 1998; Sumter *et al.*, 2009), indicating that more adolescents experience these problems, compared with children. Many adults with anxiety disorders also have their roots in youth (Beesdo *et al.*, 2009; Gregory *et al.*, 2007; Kessler *et al.*, 2005, 2007; Wittchen *et al.*, 1992; Wittchen & Fehm, 2003). Data from the National Comorbidity Survey indicate that up to 50% of adults with an anxiety disorder report onset before the age of 12 and 75% have onsets under the age of 21 years (Kessler *et al.*, 2005). These data suggest that those with a propensity to develop persistent, perhaps lifelong anxiety problems, are more likely to develop these early. There has therefore been a surge of interest in identifying risk factors for *individual differences* in the propensity to develop anxiety and depression in late childhood and adolescence. However, less is known about *developmental differences* in the propensity to develop these symptoms across life.

The main goal of this chapter is to review biological, cognitive and social changes that occur in late childhood and adolescence, which may explain the ‘developmental sensitivity’ for the onset of mood and anxiety problems. To do this, we consider factors that have typically been linked to *individual differences* in anxiety and depressive problems, and explore whether changes in these factors may account for *developmental differences* in risk. We aim to speculate on how new social stressors interact with ‘genetic innovation’ to produce changes in brain circuitry structure and function and how associated changes in emotion regulation abilities and social understanding may inform developmental sensitivity to anxiety and depression in the transition to, and across adolescence. Our proposed framework does not suggest that everyone will manifest symptoms during late childhood or adolescence. Nor do we suggest that anyone who shows an elevation in symptoms necessarily develops recurrent and persistent disorders. Instead, we simply ask why so many people who do suffer from lifelong problems of anxiety and depression typically show these signs early in life.

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Changes in the social world

Are environmental factors implicated in child and adolescent anxiety and depression?

One of the most consistent findings to emerge regarding the aetiology of anxiety and depression is the importance of environmental influences (Brown *et al.*, 1996, Kendler *et al.*, 2003), a finding that also occurs in children and adolescents (Grant *et al.*, 2004). One line of support comes from quantitative genetic studies, notably twin studies. Typically, while these can be used to estimate genetic contributions to behavioural outcomes, such as anxiety and depression (see Plomin *et al.*, 2008 for an introduction to twin studies and analyses), they can also quantify environmental contributions to the same outcomes. The degree to which not all behavioural similarity is explained by genetic factors supports the presence of ‘common’ environmental experiences (also known as the ‘shared’ environment); and the degree to which individuals differ on a behavioural outcome is assigned to individual-specific experiences (also known as the ‘non-shared’ environment). In short, as well as indicating the importance of ‘nature’, twin analyses also indicate shared and non-shared environmental influences on child and adolescent anxiety and depressive outcomes.

A notable limitation of twin studies however is that they do not identify the specific aspects of the environment that are involved. Fortunately, one can draw on a longstanding body of literature that has linked specific social factors to anxiety and depression in youth (Grant *et al.*, 2004), although much of this research has focused on research in children and young people living in Western societies. First, emotional problems have been linked to stressful life events. Such events can be proximal, precipitating the onset of symptoms, especially amongst those who have an existing predisposition. Alternatively, they can be distal, occurring in the form of early-life experiences, which have lasting effects on stress responding. These include early-life trauma and adverse events such as maltreatment and separation from parents (Brown *et al.*, 1993; Levitan *et al.*, 2003). Daily hassles and other chronic stressors have also been implicated (Eley & Stevenson, 2000). These include financial strains, usually reflected in parental socioeconomic status (Gilman *et al.*, 2003), as well as interpersonal strains. Such strains can occur in parent–child relationships, mediated via parenting style or behaviour. Indeed, controlling parenting (i.e. allowing children little autonomy) has been associated with childhood anxiety, with many studies demonstrating that mothers of anxious children allowed their children less autonomy than others (Eley *et al.*, 2010; Greco & Morris, 2002; Moore *et al.*, 2004). Negative interpersonal experiences also occur outside the home. Being rejected by peers or bullied have been associated with greater anxiety and depression (see Arseneault *et al.*, 2010; Hawker & Boulton, 2000 for reviews). While these influences may predict the onset of symptoms, often there are bi-directional associations, such that anxious and depressed adolescents may be more likely to avoid or withdraw from social situations and to attract more negative peer experiences (Gazelle & Ladd, 2003; Gazelle & Rudolph, 2004). Romantic dating, while less well-studied, has in some young people been associated with higher depression symptoms (Davila *et al.*, 2004) although other studies have shown it may act as a protective factor against emotional distress (La Greca & Harrison, 2005). Related to this, anxiety and depression have been associated with an absence of social support, which may serve to buffer against negative experiences (Barrera & Garrisonjones, 1992; Cauce *et al.*, 1992; Quamma & Greenberg, 1994).

Are there age-related changes in these environmental factors?

Again interesting insights on environmental change and continuity across age can be gleaned from more complex twin analyses. If twin analyses are performed on different-aged samples, age differences in the *size* of genetic and environmental influences across development can be tested. If twin analyses include longitudinal assessments of symptoms within a sample, this affords additional information on whether *sources* of genetic and environmental influence vary with age or remain stable. Using these methods, several twin studies now consistently indicate that shared environmental influences are more likely to play a role in anxiety and depression symptoms in young children than in adolescents (Lamb *et al.*, 2010; Rice *et al.*, 2002; Scourfield *et al.*, 2003; Thapar & McGuffin, 1994). Moreover, studies using longitudinal assessments report ‘new’ sources of non-shared environmental influences on depressive symptoms in adolescence (Lau & Eley, 2006; O’Connor *et al.*, 1998b).

To make sense of the findings on changes in environmental influences, one needs to consider data from studies that track changes in the wider social environment. Again the focus of most research in this area has been on children and young people growing up in Western societies. As noted above, stressful life events are a powerful predictor of the onset of symptoms. As children and adolescents mature, they may experience *more* stressful life events (Hoffman *et al.*, 1992) and daily hassles (Compas *et al.*, 1985), although not all of these reports have been replicated (Hoffmann & Cerbone, 1999). Alternatively, adolescents may experience other novel chronic stressors. For example, the transition to secondary school brings alterations in educational demands, peer groups and daily routines, and is often associated with a period of anticipatory anxiety and subsequent re-adjustment (Fenzel, 2000; Puskar & Rohay, 1999). During this period, adolescents compared with pre-transition children experience greater stress responses towards performance-related stressors (Stroud *et al.*, 2009).

Older children and adolescents in western societies also begin to spend more time with their peers than with their families (Larson *et al.*, 1996), with some suggestion that parent-child conflicts also increase (Sallinen *et al.*, 2007). In these societies romantic relationships develop for the first time, impacting on these existing social networks (Zimmer-Gembeck, 2002). These changes may serve to enhance the emotional salience of peer feedback. Indeed, adolescents exert a great deal of energy forming peer networks and soliciting peer approval (Steinberg & Morris, 2001). While having positive experiences with peers is generally beneficial, the need to gain peer approval can also result in negative outcomes. For example, some data point to more risky decisions being taken on a computer driving game, in the presence of peers (compared with playing alone) in adolescents, than in children and adults (Gardner & Steinberg, 2005). But some data also show that resistance to peers increases across adolescence (Steinberg & Monahan, 2007). As well as finding peers more rewarding, adolescents may also experience greater distress to negative peer experiences than adults. This has been demonstrated with the Cyberball paradigm (Williams *et al.*, 2000), in which participants play a computer-based ball-tossing game with two other ‘players’ that are in actuality computer generated. Under conditions of exclusion, the participant is rarely tossed the ball by either of the two co-players who toss to one another; under conditions of inclusion, the participant receives the ball roughly a third of the time. Recent studies exposing adolescent and adult participants to these conditions found that adolescents tended to report lower mood and more distress following ostracism relative to inclusion and baseline, than adults, who showed no difference across conditions (Sebastian

et al., 2010). Other studies have also demonstrated that adolescents undergoing the transition to secondary school may be more responsive to peer rejection than children prior to transition (Stroud *et al.*, 2009). Changes in the social world of young people could also bring with them increasingly complex exchanges, which require adolescents to acquire a more sophisticated understanding of the minds of others. For example, experimental studies in our laboratory show that adolescents deploy different strategies for establishing and maintaining reciprocity in their social relationships than adults (Belli *et al.*, 2012). In summary, certain chronic stressors known to predict mood and anxiety problems in young people may increase in the transition from late childhood to adolescence. These may include the experience of peer rejection and/or the experience of reduced peer acceptance, and perhaps the encountering of more ambiguous, perplexing social situations. These may enhance risks for developing mood and anxiety problems.

Genetic innovation across development

Are genetic factors implicated in child and adolescent anxiety and depression?

As described earlier, twin studies provide a powerful tool for estimating the heritability of mood and anxiety measures. Moderate genetic effects on early anxiety and depression have been reported (Lau & Eley, 2006; Lau *et al.*, 2007) but attempts to specify such genes have been largely unsuccessful despite advances in technology (such as the rapid advance of microarray technology, which can examine multiple genetic polymorphisms simultaneously, e.g. Gunderson *et al.*, 2005). While the short form of the serotonin transporter gene polymorphism has been implicated in adult mood and anxiety problems, findings in children and adolescents are more mixed. Some findings have been replicated, but not others. The pattern of replications and non-replications of results is not just limited to developmental samples, but across the field (e.g. for meta-analyses of associations between anxiety-related traits and the serotonin transporter gene polymorphism; see Munafó *et al.*, 2009; Schinka *et al.*, 2004) and it is becoming increasingly apparent that complex disorders such as anxiety and depression are influenced by multiple, interacting genetic and environmental influences of small effect size (see Plomin *et al.*, 2008). Thus, conclusions of specific genes in general and the few drawn from younger samples in particular await further verification in larger and more powerful studies, such as that offered by genome-wide association studies (Boomsma *et al.*, 2008; Flint *et al.*, 2012).

Researchers have begun to turn to the question of *how* genetic influences identified in twin studies take effect. Twin studies have shown how genetic risk factors may influence exposure towards particular pathological environments, and/or influence emotional responses towards these (Lau & Eley, 2008b). We have also begun to explore how genetic factors may contribute to negative cognitive styles linked to anxiety and depressive symptoms (Lau & Eley, 2008a). These data show that not only are cognitive styles heritable, but that the relevant genetic influences overlap with those contributing to depressive symptoms, suggesting there are shared genes. Finally, we have also found associations between the serotonin transporter gene variant and increased neural responses to the appraisal of fear in anxious and depressed adolescent patients (Lau *et al.*, 2009) but as with all candidate gene studies, these will need to stand the test of replication in larger samples.

Are there age-related changes in genetic factors?

While the lay-reader will probably be open to the idea that environmental influences on difficulties such as anxiety and depression change throughout development, it is not obvious how genes could become more or less important influences on difficulties over time given that the sequence of our DNA is stable across the life course. These suggestions may appear less provocative when considered in the context of long-standing ‘maturationist’ theories of development, such as that of Arnold Gesell (1932). These theories point to the presence of a genetically determined biological programme, in which biological events occur at particular milestones across development to influence behaviours and abilities. Most theories would also imply that exposure to particular environmental events at these milestones is crucial for continued development. Consistent with these theories, genes contributing to anxiety and depression could become ‘switched on’ (i.e. functioning) at particular developmental milestones. A plethora of literature shows exactly that. Genetic influences on symptoms of depression have been shown to be greater in adolescents than in children (Lamb *et al.*, 2010; Rice *et al.*, 2002; Scourfield *et al.*, 2003; Thapar & McGuffin, 1994). But the picture is more complicated than rising genetic effects: instead, findings have shown substantial genetic influences in early childhood (54–76% at 3 years) compared with middle childhood (34–48% between 7–12 years) (Boomsma *et al.*, 2005; van der Valk *et al.*, 2003), and decreasing genetic effects on depressive symptoms over time during adolescence (O’Connor *et al.*, 1998a, 1998b). Thus changes in heritability may not be linear.

As for studies exploring change and continuity in genetic factors, there appear to be novel genetic influences on symptoms of depression in adolescents (Kendler *et al.*, 2008; Lau & Eley, 2006). These data do not however tell us much about the precise ‘developmental’ genes that are likely to be involved or how these may take effect. One speculation is that these new genetic effects reflect maturational changes in the brain circuits involved in emotional and social processing, and in emerging cognitive styles that regulate emotions.

Continuing maturation of the emotional and social brain

Are neural factors implicated in child and adolescent anxiety and depression?

Elucidating differences in the brain between symptomatic and non-symptomatic youth is a current focus of study. Investigations tend to focus on identifying symptom-linked differences in known ‘emotion’ circuits of the brain, and more recently, have extended their focus to the so-called ‘social brain’. The emotion circuit includes (but is not limited to) the amygdala, as the region implicated in the detection of emotion (fear being most-researched); the striatum, comprising the caudate, putamen, and nucleus accumbens, as the region (or subregions) activated by the anticipation and experience of rewards; and regions of the prefrontal cortex (PFC) including ventromedial, dorsolateral and orbitofrontal regions, all of which are thought to regulate basic affective responses through higher-order cognitive processes, such as fear extinction and decision-making (Hartley & Phelps, 2010). The social brain includes overlapping regions – perhaps because engaging with social information reflects an emotionally salient event – but also includes distinct regions involved in perceiving a social stimulus (a face) or in more complex social cognition, thinking about others’ mental states. Specifically, the social brain has been taken to include the fusiform face area, posterior superior temporal sulcus, amygdala, temporo-parietal junction, anterior rostral medial prefrontal cortex, the anterior cingulate cortex and anterior temporal cortex (Burnett *et al.*, 2011).

The most robust group differences to have emerged between anxious and depressed youth and their psychiatrically healthy counterparts are in the amygdala, in which symptomatic children and adolescents show greater responding during viewing or appraisal of emotional (Beesdo *et al.*, 2009) or social stimuli (Guyer *et al.*, 2008; Lau *et al.*, 2012a). There may also be reduced activity in reward-related regions, such as the striatum during reward anticipation and outcome (Forbes *et al.*, 2006, 2009). Finally, while some studies in adults show reduced responses in PFC regions during emotion processing (e.g. Halari *et al.*, 2009), not all adolescent studies of patients replicate these (Monk *et al.*, 2006). Similarly, findings on the degree of co-activation between the amygdala, and PFC, usually ventromedial, regions, have also been mixed. Adult studies of anxiety and depression typically find an attenuated connectivity between these regions, supporting the hypothesis that the larger amygdala responses towards emotional and social stimuli result from poorer top-down regulation. But the direction of this relationship is complex in adolescents, varying across tasks (McClure *et al.*, 2007).

Are there age-related changes in neural factors?

Neuroimaging research over the last decade has revealed that the human brain does not stop developing beyond infancy and childhood but in fact continues to mature at least throughout adolescence and young adulthood (Giedd & Rapoport, 2010; Lebel & Beaulieu, 2011). Striking age-related changes in cerebral volume, including linear increases in white matter and regionally specific inverted u-shaped trajectories for grey matter brain structures have been reported (Giedd & Rapoport, 2010). Such changes may result in an overall increase in the efficiency of the brain, particularly in communication across structures and circuits, by increasing signal to noise in the system and allowing for the strengthening of relevant connections (Durstun *et al.*, 2006).

Over the last decade, there has also been a proliferation of studies assessing age-related changes in brain activation patterns using functional neuroimaging techniques. Most of these have compared individuals from different age groups during the appraisal of negative and positive stimuli; cognitive regulation of emotional responses; and the appraisal and understanding of salient social interactions. These studies suggest a general trend of enhanced subcortical responding, both in the amygdala and striatum during the respective processing of threat- and reward-related emotional stimuli in adolescents relative to children and adults (see Somerville *et al.*, 2010 for a review). These same studies also suggest age-linked differences in prefrontal regional responses during the control and inhibition of basic emotional responses. Sometimes these differences manifest as a reduction in activation, but other times as an increase in responding, depending on task demands. In one of our studies, we compared adolescent and adult patterns of neural responding during the acquisition of fear to threat cues and the acquisition of a reduced fear response to safety cues using a fear-learning task (Lau *et al.*, 2011a). Compared with adults, adolescents engaged their amygdala to a greater degree to threat cues. However, interestingly, only adults showed a positive correlation between a reduction of fear to safety cues and activation of the dorsolateral PFC. These findings may suggest that the degree to which prefrontal regions, such as the dorsolateral PFC, inhibited emotional responding of the amygdala, particularly under non-threatening i.e. safe contexts, varies with age.

Several studies investigating age differences in the social brain, for example during appraisal of peer exclusion, have also found differences between adolescents and adults,

emerging in emotion-response and regulation regions such as the striatum and lateral PFC (Sebastian *et al.*, 2011) but also in areas implicated in social understanding, such as the anterior cingulate cortex (Gunther Moor *et al.*, 2012; Masten *et al.*, 2009) and medial PFC (Sebastian *et al.*, 2011). Studies have also investigated age-group differences in regions involved in social understanding, as probed during the completion of theory of mind cartoons. These have reported age-group differences in medial PFC (Sebastian *et al.*, 2012).

In summary, there may be changes in brain structure and function in regions implicated in the processing of emotional and social information. While it is unclear how the direction of these differences can be interpreted, many of these studies support the notion that differences in functional activity may explain differences in young people's responses towards emotional situations such as peer rejection and/or understanding the new social landscape. While these data are intriguing, most have recruited broadly defined age groups, which may mask more subtle, continuous developmental changes. Second, age reflects a rather more crude measure of development compared with the stage of puberty, which is often not measured.

Developmental aspects of information-processing biases and cognitive vulnerability

Are information-processing biases and cognitive vulnerability factors implicated in child and adolescent anxiety and depression?

A wealth of data has found processing biases and distorted cognitions in anxious and depressed children and adolescents (see Hadwin *et al.*, 2006 for a review of these studies; Lau *et al.*, 2012b). Moreover, the rationale of cognitive behavioural therapy has been to target these distortions in treating anxiety and depression. Studies have identified biases in attention-capture and control to threatening words and pictures in children and adolescents (including faces). Capitalising on a range of experimental tasks tapping distinct attention processes, including the visual probe task, the emotional Stroop task, the visual search task and the affective Go/No-Go task, these studies have found that anxiety is linked to an automatic bias towards threatening information (attention-orienting bias). More tentatively, the data also suggest a compromised ability to direct attention away from threats (attention control bias). Studies with depression have been more complex, with attention biases only emerging under specific task demands, such as length of exposure time of the threat stimulus (preconscious versus elaborative) and the nature of the emotional stimulus (social versus physical threats). But both anxiety and depressive conditions in youth have been linked to biases in the labelling of material as threatening. These studies draw on many different methodologies, including presenting participants with ambiguous scenarios, words and pictures, to which participants' tendency to select threat or benign interpretations is assessed. These studies are persuasive in suggesting that young people with anxiety and/or depressive symptoms are more likely to endorse threatening/negative interpretations. Finally, child and adolescent mood symptoms have also been linked to memory biases for negative information. While an earlier criticism of this work was the inability to disentangle whether these biases were a cause or an effect of symptoms, more recent work has used training techniques to manipulate and induce particular biases and then assess their effects on symptoms. These data, while few, show reasonably

convincing support for a temporal relationship between induced biases and subsequent effects on mood and state anxiety (Lau *et al.*, 2011b; Lothmann *et al.*, 2011; Muris *et al.*, 2008, 2009).

Anxiety and depressive symptoms in children and adolescents have also been linked to other cognitive distortions, such as a negative attributional style, the tendency to endorse internal, stable and global reasons for negative events, dysfunctional attitudes, and negative interpersonal cognitions, such as distorted perceptions and expectations of the world and other people (Jacobs *et al.*, 2008). These cognitive biases are thought to predict symptoms in the presence of stress, with generally robust support for this 'diathesis-stress' hypothesis.

Are there age-related changes in information-processing and cognitive vulnerability?

The majority of work investigating developmental changes has focused on cognitive vulnerability factors. As children mature, gradual changes in cognitive vulnerability factors, such as attributional style, have been noted. Thus, attributional style may play a more consistent role in the development of depressive symptoms in adolescents compared with children. Indeed, a recent review of existing child and adolescent studies suggested that the interaction of life events and attributional style becomes a more potent predictor of depression as children age (Jacobs *et al.*, 2008). There are also data to suggest subtle changes in the nature of the relationship between negative attributions, stress and depressive symptoms. Thus, while adolescent negative attributional style acts as a trait-like diathesis, elevating depressive responses to stress, negative attributions in children have been found to mediate the effects of early stress on symptoms (Cole & Turner, 1993, Turner & Cole, 1994). However these developmental dissociations have also been contradicted by reports of an interaction between negative attributions and stress in earlier childhood when using more developmentally sensitive measures of attributional style (Conley *et al.*, 2001).

Cognitive vulnerability factors are also thought to become increasingly stable and trait-like in the transition to adolescence. An analysis of test-retest correlations on multi-wave measures of depressogenic cognitive style, dysfunctional attitudes, rumination, neuroticism, and depressive mood in adolescents has been used in one study to support a trait-like model rather than a contextual model in adolescents. In this model, an enduring vulnerability factor explains stability over time (Hankin *et al.*, 2005). In contrast, in the younger half of their sample, both the trait-like and contextual model fit the data well. Finally, there is some suggestion that with development, cognitive vulnerability factors also may become more inter-related. Indeed, factor analyses do point to increasingly common, overlapping factors in adolescents, rather than more distinct cognitive vulnerability factors in childhood (Hankin *et al.*, 2007). These ideas align well with proposed age trends in the consolidation of cognitive schema (Nolen-Hoeksema *et al.*, 1992), in which repeated learning experiences and increasing cognitive capacity serve to reinforce and possibly integrate the various facets of cognitive style.

In summary, there is some suggestion that cognitive distortions such as negative attributional style and dysfunctional attitudes become increasingly stable, cohesive and trait-like in the transition to adolescence. The developmental emergence of these enduring and more habitual vulnerability factors are thought to reflect increasing experience but may also point to (neuro)cognitive maturation.

Concluding remarks: an integration and suggestions for early interventions

In this chapter, we have discussed some of the age-related changes that can occur during late childhood and adolescence. Interestingly these changes co-occur with the time when many anxiety and depressive symptoms first arise. Thus, interactions amongst these changes could serve as an explanation for the developmental trajectory of anxiety and depression. Specifically, we suggest that changes in the social environment provide young people with new challenges that they may not previously have encountered such as negotiating more complex peer networks and/or changes to the school routine. Difficulties in regulating their emotions towards some of these challenges, or even understanding these new challenges, may arise in part because of limited experience, but also from a protracted development of neural circuits involved in emotion and social processing. In contrast to subcortical regions, which mature early, prefrontal regions are slower to mature. In fact, the maturing of these circuits could reflect the sources of new genetic variance identified by quantitative genetic studies. The 'mis-match' in brain maturation could result in a pattern of strong emotional responses to threatening and complex social interactions that are unchecked. How might these patterns of brain activity then affect information-processing? We suggest that strong affective responses could serve to bias information-processing, resulting in a greater tendency to direct attention towards threatening information and to misinterpret ambiguous cues. With repeated experiences and consolidation of cognitive schema, these information-processing styles may become habitual, manifesting as cognitive vulnerability factors, such as negative attributional style and dysfunctional attitudes. It is important to note that our proposed framework of developmental changes is thought to affect only those with a propensity to develop mood and anxiety problems, rather than a theory of why all adolescents experience anxiety and depression.

What implications does this model carry for cognitive behavioural therapists? According to our framework, processing biases and cognitive vulnerability factors could reflect the final pathway by which these changes exert their negative effects on individuals who are prone to persistent anxiety and depressive problems. However during late childhood and early adolescence, these may be more transient and state-like. Moreover, these may be underpinned by neural systems that are undergoing protracted brain development. Speculatively, one may expect that CBT has the biggest effects during this stage of developmental plasticity, although this question clearly awaits empirical verification. More recent studies have begun to use cognitive bias modification (CBM) techniques to further target information-processing biases and cognitive vulnerability factors. This may reflect a particularly fruitful area for prevention. Specifically, cognitive bias modification of attention studies train individuals to direct attention away from (rather than towards) threats while cognitive bias modification of interpretations train individuals to select positive (rather than negative) interpretations of ambiguous material. Amassing data from youth samples attests to the effectiveness of modifying attentional and interpretation biases on anxiety reduction in clinical and also unselected children and adolescents (Bar-Haim *et al.*, 2011; Lau *et al.*, 2011b; Lester *et al.*, 2010; Lothmann *et al.*, 2011; Muris *et al.*, 2008, 2009). While more work is needed to assess their sustainability as a therapeutic tool, early data from these paradigms are promising in their goals to provide an early intervention for those with anxiety and mood symptoms, but also more generally, to improve emotional well-being across children and adolescents.

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Adapting cognitive behaviour therapy for children and adolescents

Paul Stallard

Cognitive behaviour therapy

Cognitive behaviour therapy (CBT) is a generic term used to describe therapeutic interventions based upon cognitive, behavioural and problem-solving approaches. This integrated approach builds upon the efficacy of behavioural techniques by considering the meanings and interpretations that are made about the events that occur. These are assumed to be important since dysfunctional cognitions and processing are associated with psychological problems. Cognitive behaviour therapy therefore involves the assessment and identification of biased or selective cognitions and processing. These are then subject to objective evaluation which leads to the development of more functional and balanced thoughts, assumptions and beliefs. Behavioural and cognitive skills are developed through problem-solving approaches where skills and frameworks for coping with challenges are developed. This occurs within a systemic framework where the role of the family and other systemic factors that may contribute to the onset and maintenance of the child's difficulties are recognised and addressed (Dummett, 2010). Cognitive behaviour therapy therefore helps the child and their family to develop more functional skills and to identify, challenge and develop alternative cognitions to counter and replace the cognitive deficits and distortions assumed to underpin emotional and behavioural problems.

Cognitive behaviour therapy techniques

Cognitive behaviour therapy is 'an umbrella term for a non-standardised package of different treatment techniques that can be offered in many different sequences and permutations' (Durlak *et al.*, 1991). Cognitive behaviour therapy is not therefore a unitary approach but a collection of behavioural, cognitive and problem-solving approaches which can be used in different combinations depending upon the individual's needs. Cognitive behaviour therapy therefore offers the clinician a toolbox of techniques that can be drawn upon to facilitate the development of more functional cognitive, emotional and behavioural skills. The selection of specific techniques will be informed by the case formulation and will be adapted to account for the child's development.

All CBT programmes start with psychoeducation in which information is provided about the presenting problem, the cognitive model and the process of therapy. The general link between cognitions, emotions and behaviour is explained and a formulation developed in which the child's specific problems are conceptualised within the CBT framework.

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The collaborative and active nature of CBT is explained and the open and empirical approach highlighted.

Cognitive behaviour therapy interventions combine specific techniques that focus upon the cognitive, emotional and behavioural domains. In terms of cognitions, the first step is to assess the nature, extent and content of dysfunctional cognitions through thought monitoring. This will highlight common cognitions or the 'hot thoughts' that are associated with strong emotional states. Monitoring will clarify both the specific content of dysfunctional cognitions and common patterns and themes in processing. For example, the content of cognitions associated with depression often focus around failure, for anxiety upon threat and danger, whilst for OCD they are often about personal responsibility for causing harm. Similarly dysfunctional or biased ways of processing may emerge such as selective abstraction, catastrophisation or personalisation. These dysfunctional cognitions and processes are then subject to objective evaluation. Typically this involves a Socratic dialogue or behavioural experiments where assumptions and beliefs are systematically appraised and tested. This structured evaluation generates new information which provides alternative explanations and meanings which challenge and question existing beliefs and assumptions. This leads to the final stage of cognitive restructuring where this new information is assimilated and alternative more balanced and functional cognitions developed.

Skill enhancement and development occurs in both the emotional and behavioural domains. Emotional education and awareness training facilitate the development of an emotional vocabulary and an awareness of the specific signals associated with different emotional states. Emotional monitoring can be used to identify the frequency and strength of different emotions and the situations and times when they are most intense. This leads to emotional management training where skills and techniques such as relaxation training and activity rescheduling are developed to reduce the intensity of these unpleasant emotions. Finally, CBT draws upon specific behavioural techniques which may include the development of fear hierarchies, response prevention and exposure, the development of systemic problem-solving approaches, role play, practice and contingency management. The overall aim of work in this domain is to enhance skills and to facilitate their successful application in everyday life.

The particular emphasis and specific techniques included in the intervention will vary depending upon the nature of the problem and will be informed by the formulation. Typically interventions for depression start in the behavioural domain with an emphasis upon behavioural activation. For anxiety disorders CBT interventions typically start in the emotional domain with an emphasis upon emotional education and the development of an understanding of the anxiety response and anxiety management skills. Recent treatment for PTSD has focused upon the cognitive domain and the early identification of dysfunctional cognitions and deficient trauma processing that are associated with PTSD.

Cognitive behaviour therapy process

In addition to the specific techniques the importance of the therapeutic relationship within CBT has been highlighted (Chiu *et al.*, 2009). It has been argued that a warm and flexible child-therapist relationship will be empowering and will facilitate the child's active engagement in therapeutic tasks (Chiu *et al.*, 2009; Chu & Kendall, 2009). Although not always associated with greater post-treatment gains an empathic relationship may result in earlier

symptom reduction. Similarly engagement may be facilitated and motivation increased by making sessions more active and interesting and by demonstrating ideas in multiple formats (Chiu *et al.*, 2009; Chu & Kendall, 2009).

Research into the specific aspects of the therapeutic relationship that are important in CBT with children is lacking (Fjermestad *et al.*, 2009). However a number of factors defined by the acronym PRECISE appear worthy of attention (Stallard, 2005). The therapeutic process involves the child and their family working in a partnership (P) with the therapist. The partnership is based upon collaborative empiricism and highlights the active role of the child and their parents/carers in securing change. The therapist needs to pitch the intervention at the right developmental level (R) to ensure that it is consistent with the child's cognitive, linguistic, memory and perspective-taking ability. The therapist adopts a warm, caring, respectful and empathic (E) relationship and creatively (C) and flexibly conveys the concepts of CBT in a way that matches their interests and understanding. A key concept of CBT is that of guided discovery and investigation (I) which is developed through the adoption of a curious and reflective stance. Self-efficacy (S) is promoted as the therapist helps the child to discover and build upon their strengths, skills and ideas. Finally, therapy sessions should be enjoyable (E) and engaging to maintain the child's motivation and commitment to change.

The remainder of this chapter will explore how the techniques and process of CBT need to be adapted to work with young children, children and adolescents.

Cognitive behaviour therapy with young children (under 7)

There has been an assumption that children under the age of 7 are not sufficiently developmentally mature to engage with the cognitive and verbal demands of CBT. However developmental research suggests that very young children do have a representational understanding of mind, i.e. they understand that people have internal mental states such as thoughts, beliefs and images that may represent or misrepresent the world (Wellman *et al.*, 1996). Three-year-old children understand that thought bubbles represent what a person may think, can distinguish between thoughts and actions, acknowledge that people can have different thoughts about the same event, and that thoughts can misrepresent an event. Flavell *et al.* (2001) suggest that inner speech is acquired during the first years at school and that by the age of 5 children are able to articulate their cognitions and understand the concept of self-talk, a common strategy in many CBT programmes.

There is a small but growing number of studies reporting the use of CBT with young children. In a trial of children aged 5–8 with obsessional compulsive disorder (OCD), Freeman *et al.* (2008) found that 69% of those who completed a 12-session family-based CBT programme achieved clinical remission compared with 20% in a relaxation comparison condition. Hirshfeld-Becker *et al.* (2010) in a trial with children aged 4–7 with anxiety disorders found significant post-treatment decreases in anxiety disorders in those completing parent-child CBT compared with a waitlist condition. Similarly, in terms of post-traumatic stress disorder (PTSD), Scheeringa *et al.* (2011) reported the feasibility of a trauma-focused CBT intervention with children aged 3–6 who had experienced a life-threatening event. The study was small and retention proved difficult but nonetheless the post-treatment and 6-month effect size for PTSD symptom reduction was large.

Others have delivered CBT interventions that have targeted the behaviour of young children through their parents. Waters *et al.* (2009) found a group-based CBT intervention for parents of anxious children aged 4–8 was as effective as an intervention that involved both parents and children. Cartwright-Hatton *et al.* (2011) compared a CBT parenting intervention for parents of anxious children aged 2–9 years with a waitlist comparison. Of those who received the CBT parenting intervention, 57% were free of their primary disorder compared with 15% in the waitlist group. Similarly, in an open trial with anxious children aged 4–7 van der Sluis *et al.* (2012) found a brief CBT intervention delivered only to parents resulted in significant reductions in parent and teacher reports of child anxiety.

Adapting cognitive behaviour therapy for young children (under 7)

Scheeringa *et al.* (2011) evaluated the degree to which children understood and completed the specific CBT tasks in each of the 12 sessions of their trauma-focused CBT intervention. Young children found it hard to understand rating scales and recognise graduations of emotional states. However, nearly all of the tasks were successfully completed by 3-year-old children with those that required more verbal understanding or expression proving the most difficult. However the authors noted that the use of visual stimuli significantly enhanced understanding. For example, none of the 3-year-old children were judged to have understood the concept of PTSD from a verbal discussion but almost two-thirds did when the concept was explained through cartoons. Similarly, only a quarter of 3-year-olds could identify four feelings during a verbal discussion but this doubled when they used drawing.

In their study with young children with OCD Freeman *et al.* (2008) described how they modified CBT so that it was specific, concrete and used familiar examples. The rationale for exposure and response prevention was described as ‘taking a medicine that tastes ‘yucky’ but makes you feel better’. Obsessional thoughts were differentiated from other non-intrusive thoughts which were described as ‘having a song stuck in your head or thinking about a scary movie’. Hirshfeld-Becker *et al.* (2008) described how they told children a story about a child who overcame their fears by learning coping skills and engaging in exposure. Indeed the use of stories is an extremely helpful way of explaining to younger children how problems develop and highlighting the ways that they can be changed.

Play is also important with young children and dolls and puppets can be used to assess and explore potentially important cognitions and to develop coping skills. Problem situations can be acted out with puppets. During the play children can be encouraged to suggest what the puppets might be thinking as a way of identifying potentially important cognitions. Puppets can also be used to develop and practice coping skills. Hirshfeld-Becker *et al.* (2008) for example described how children were encouraged to use puppets to rehearse and coach another puppet to cope with a fearful situation.

Games can also be used to explain key concepts of CBT. Ronen (1993) used a game of soldiers with a 6-year-old boy to explain the difference between automatic and mediated thoughts. Mediated thoughts were explained as the commander (brain) sending orders to their soldiers (child’s body). Similarly Hirshfeld-Becker *et al.* (2008) described how exposure tasks were turned into fun games. Children with separation fears were encouraged to take part in treasure hunts where they had to leave their carer to seek the treasure. For those with social fears the authors described how the children were asked to conduct surveys where they had to approach others to ask questions.

The process of CBT with young children (under 7)

When undertaking CBT with young children careful attention needs to be paid to ensure that CBT is pitched at an appropriate developmental level and that ideas are creatively conveyed. Verbal explanations need to be limited and kept to simple and familiar concrete examples from the child's everyday life. Rating scales need to be short with more emphasis upon visual images rather than numbers. Similarly there will be a greater emphasis upon non-verbal materials such as drawing and cartoons and the creative use of games, puppets and stories.

Cognitive behaviour therapy with younger children always involves parents. In some programmes children do not attend any sessions but instead parents are trained to use parenting and CBT techniques to help their children (Cartwright-Hatton *et al.*, 2011; van der Sluis *et al.*, 2012). Other interventions involve some separate parent sessions but the majority involve children and parents attending joint sessions (Freeman *et al.*, 2008; Hirshfeld-Becker *et al.*, 2010; Scheeringa *et al.*, 2011).

Interventions typically involve psychoeducation in which parents are provided with an understanding of their child's problem and a rationale for the intervention. Interventions include training in positive parenting skills and contingency management techniques designed to encourage the development of the child's coping skills. For example, with anxious children parents will be encouraged to reinforce and attend to courageous behaviour and their attempts at coping rather than rehearsing their child's worries and fears or inadvertently encouraging avoidant behaviour. Parents are also trained in the use of specific CBT techniques such as graded exposure or response prevention to facilitate their child's development and practice of new skills.

The intervention with the parent provides an opportunity to address any parental behaviour that might be maintaining their child's problems. Parents for example might be helped to manage their own anxiety so that they can confidently model facing and coping with fearful situations. Similarly, important dysfunctional parental cognitions can be identified, discussed and reappraised. For example a parent's assumption that undertaking repetitive behaviours or habits for their child is helpful can be challenged.

Whilst most parent-only studies have focused upon anxiety disorders it is interesting to note that parents can effectively be taught CBT techniques which they can use to coach their children. This is a promising development which needs to be substantiated with other problem groups through suitably powered studies with appropriate comparison groups.

Cognitive behaviour therapy with children (7–11)

Many of the randomised treatment trials that have demonstrated the effectiveness of CBT have included children between the ages of 7–11. However in many trials the age range of participants is wide and it is unclear how many fall within this younger group. Similarly studies often fail to describe how the intervention was suitably adapted for children at varying stages of development. Nonetheless CBT with children of this age does appear to be effective. In a meta-analysis Durlak *et al.* (1991) noted that although adolescents derived more benefit from CBT the effect size with children (aged 7–11) was still large.

In terms of practice, although CBT can involve sophisticated and complex cognitive tasks the cognitive demands are often limited. Many cognitive tasks require an ability to reason effectively about concrete matters or may focus upon the development of a specific

cognitive technique such as coping or constructive self-talk (Harrington *et al.*, 1998; Kendall, 1994; March *et al.*, 1994). Therefore if the methods and techniques are suitably adapted to ensure that they are congruent with the child's developmental abilities then children of this age should be able to engage in, and benefit from, CBT.

Adapting cognitive behaviour therapy for children (7–11)

Cognitive behaviour therapy with children of this age needs to be delivered in an interesting and engaging way and will require a mix of verbal and non-verbal techniques. A range of materials will be useful and it is helpful to ensure that visual media such as black/white boards, flip charts, drawing materials and worksheets are available.

In terms of cognitions, it is not uncommon to find that children are unable to report their thoughts spontaneously in words. However a therapist-led approach in which the child is guided through situations or events in detail can often help to identify their cognitions (Williams *et al.*, 2002). On other occasions children might have problems verbalising their own cognitions but can provide an insight into these by discussing what another child in a similar situation would think (Kane & Kendall, 1989).

For those who are not verbally forthcoming more visual activities involving cartoons, thought bubbles and quizzes can be helpful. Worksheets involving simple picture/cartoons with thought bubbles over the characters' heads can be used to help children understand that a thought bubble can be used to represent what a person is thinking. Introducing multiple thought bubbles introduces the child to a core concept of CBT, namely that of alternative thinking, i.e. there is more than one way of thinking about the same event. Unfinished sentences can be used to identify thoughts related to specific situations and feelings (Friedberg & McClure, 2002). Similarly the use of simple concepts such as red or green thoughts can help children understand that thoughts can be helpful (green) or unhelpful (red).

For children the process of cognitive restructuring in which dysfunctional cognitions are identified, tested and reappraised can prove challenging (Spence *et al.*, 2000). However the process can be simplified if children are encouraged to use specific and more concrete cognitive strategies such as coping self-talk. Cognitive change can be facilitated by encouraging children to catch their 'red' thoughts and to replace them with more helpful 'green' thoughts. Providing simple, concrete information and specific techniques can help children cope with specific problems even though they may be unable to recognise overarching rules, the cognitive processes they use, or generalise their conclusions to other situations.

A specific three-step process such as 'catch it, check it, change it' can help to guide a child through the process of thought identification, evaluation and re-appraisal. The child is therefore taught to notice when they feel unpleasant and to catch what they are thinking. Once identified, the thought can be checked by asking whether they have overlooked some important information. The process ends by asking the child to reflect on this new information and to change the thought to something that is more helpful. Processes such as this can be made more appealing through the use of metaphors encouraging children to assume the role of a 'Private I' (Friedberg & McClure, 2002) or 'thought tracker' (Stallard, 2002) as they endeavour to catch their unhelpful thoughts.

Metaphors are widely used with children to present complex or abstract concepts in concrete and understandable ways. Unhelpful automatic thoughts or intrusive images have been described as 'thought invaders' or through the use of a metaphor of an audiotape or

video recorder playing in the child's head (Barrett *et al.*, 2000; Stallard, 2002). Metaphors such as these can be developed into coping strategies whereby children are encouraged to destroy their unhelpful thoughts or to turn their tape off or the volume down.

Similarly the metaphor of an anger volcano can be used to help children understand their anger build-up or a washing machine to emphasise that some thoughts keep tumbling around in their heads. Once again the metaphor can be developed so that children can be encouraged to explore how they can stop the volcano erupting or whether they can stop the machine and remove the tumbling thoughts.

The use of play and games to explain the core concepts of cognitive behavioural therapy provides a natural, non-threatening and entertaining way of working with children. Barrett *et al.* (2000) describe how children are taught a six-step problem-solving plan through a fun task in which they are required to get a balloon from one side of a room to another. Sorting games can be used to help children distinguish between thoughts, feelings and actions (Stallard, 2002). Quizzes provide a useful and entertaining way of accessing children's cognitions or helping them to develop skills such as distinguishing between helpful and unhelpful thoughts. Role play provides engaging ways to rehearse and practice coping skills and games such as creating a TV advert can be used to encourage children to reflect upon what they have learned.

The process of cognitive behaviour therapy with children (7–11)

In terms of process, CBT with children is often less didactic or balanced than that with adults with the therapist tending to adopt a more active and at times directive role. For children who find it difficult to identify thoughts or feelings or generate alternative explanations the therapist might adopt the stance of an option provider. Two or three alternatives can be provided by the therapist for children to consider and decide whether they might apply to them. If a child is reticent or unforthcoming the therapist may adopt a curious or rhetorical approach, guessing out aloud what the child could be thinking. Similarly, the use of structured questioning and regular feedback can be used to help the child make links between thoughts and feelings or to discover important beliefs and assumptions. The therapist may work more as a 'thought catcher', identifying important cognitions when they occur and bringing them to the attention of the child (Turk, 1998). Finally in terms of process the therapist needs to attend to the pace and speed of therapy and adjust the length of treatment sessions to reflect the child's attention span.

The role of parents in the intervention needs careful attention. Although there are some exceptions, many studies have failed to find that parental involvement results in additional or greater benefits than child-only CBT (Breinholst *et al.*, 2012). Most of these studies have included children with anxiety disorders with the primary outcomes being child focused. It is therefore unclear whether parental involvement in the treatment of other disorders is beneficial or indeed whether there have been important changes in parental behaviour and cognitions that have not been assessed. The role of parents in many of these studies has not been clarified and parental behaviours that are associated with the development of child problems have seldom been directly targeted (Breinholst *et al.*, 2012).

Although the evidence base suffers from a number of limitations, current research does not support the routine or extensive involvement of parents in CBT with children. Children demonstrate similar improvements with or without parental involvement. However potentially important family and systemic influences should always be assessed and these will be

summarised in the formulation. Factors such as parental mental health or parenting issues may be associated with the onset or maintenance of the child's problems and may indicate a need for parental involvement. If these are not significant then the parental role could be limited, e.g. as a facilitator where the parent attends one or two psychoeducational sessions to learn about CBT and to encourage their child's use of new skills. If the child requires more support and encouragement or has difficulty understanding or using CBT then more extensive parental input may be required e.g. a co-therapist. The child's problems remain the primary focus of the intervention but parents are more extensively involved in therapy sessions and are encouraged to monitor, prompt and reinforce their child's use of cognitive skills outside of treatment sessions. Finally, if parents present with problems, behaviours or cognitions that are reinforcing the child's difficulties then these will need to be directly addressed. The parent and child are co-clients with interventions tailored towards directly addressing parent and child behaviour either in joint or separate sessions.

Adolescents

Many participants in randomised trials of CBT are adolescents aged 12–17 years of age. Early studies were often implicitly based on the premise that adolescents had sufficiently developed linguistic, cognitive, emotional and social perspective skills to engage in CBT. However increased attention is being paid to developmental issues and how CBT needs to be adapted for adolescents (Holmbeck *et al.*, 2006; Saunter *et al.*, 2009). Clinicians need to ensure that CBT is adapted to the adolescents' abilities not their physical appearance, and to remain aware that not all adolescents can engage in all cognitive techniques (Saunter *et al.*, 2009).

The clinician will need to ensure an optimum balance and emphasis between cognitive and behavioural techniques. For some adolescents cognitive techniques may need to be more concrete. Thus rather than using abstract concepts such as catastrophisation or selective abstraction, terms such as disaster thinking or negative glasses can be used to highlight the way the adolescent is processing events. Automatic thoughts can be conceptualised as computer spam or 'pop-ups' and the metaphor developed to help the adolescent develop a more robust firewall. Finally behavioural experiments can be very helpful for those who find a direct focus on cognitive work more challenging. Experiments provide a powerful and objective way of exploring beliefs and assumptions that generate new information to help adolescents challenge and reappraise their cognitions.

Other adolescents may find complex cognitive work more engaging and helpful and find simple techniques such as positive self-talk simplistic and patronising. Developing an understanding of different levels of cognitions (beliefs, assumptions and automatic thoughts) and how these have emerged might be helpful for those who are keen to understand why similar patterns develop over time or across situations.

Non-verbal materials are also helpful with adolescents. Diagrams summarising the case formulations can be very powerful and empowering. Printed handouts can provide useful adjuncts to clinical sessions providing a written record of key issues for future reference. Similarly, pie charts can provide an objective way of identifying, quantifying and challenging assumptions about inflated responsibility or the likelihood of events occurring. Finally, visual rating scales are useful to promote and encourage a wider range of dimensionality thereby challenging the categorical thinking that is common during adolescence.

Attention is now being paid to the use of technology in delivering CBT. Adolescents are highly familiar with, and competent in, using computers, the internet and SMS text

messaging, technologies that are appealing and engaging with this age group (see also Chapter 23). A number of computerised CBT programmes (cCBT) specifically for use with children have been developed including Stressbusters (Abeles *et al.*, 2009) and SPARX (Fleming *et al.*, 2011) for depression, BRAVE for Children-Online (Spence *et al.*, 2011), Cool Teens (Cunningham *et al.*, 2009) and Camp Cope a lot (Khanna & Kendall, 2010) for anxiety, and Think Feel Do (Stallard *et al.*, 2011) for mixed emotional disorders. cCBT programmes such as these are interactive, use sound and visual presentations and incorporate video clips, cartoon characters, quizzes and psychoeducational materials. Some of the cCBT programmes have been developed as computer games. SPARKS for example takes the adolescent through different levels as they develop a shield against depression. Similarly David gNATenborough's Island guides adolescents through a story where they identify gNATS i.e. negative automatic thoughts, which they learn to trap and swap i.e. cognitive restructuring (www.juvenilementalhealthmatters.com). This programme also has a telephone app designed to support the use of skills outside of clinical sessions (www.juvenilementalhealthmatters.com). The development of cCBT programmes for adolescents is a relatively recent development. Robust evaluations are currently limited but nonetheless cCBT appears a promising intervention (Richardson *et al.*, 2010).

The process of cognitive behaviour therapy with adolescents

Cognitive behaviour therapy with adolescents is often undertaken without significant parental involvement thereby recognising and emphasising their developing autonomy and self-efficacy. However the extent and nature of parental involvement should be assessed and explicitly agreed at the onset of the intervention and will need to be reviewed over time. Increased parental involvement may be required at different stages of the intervention, for example to support and facilitate behavioural experiments or exposure tasks. Similarly particular risks such as suicidal ideation may emerge during individual sessions which parents need to be made aware of.

Working with adolescents may present challenges in terms of engagement and motivation. In many instances adolescents will have been referred because of concerns raised by others. These may not necessarily be shared by the adolescent who might appear uninterested, bored or hostile or deny or play down the extent of any problems. The therapist needs to adopt a warm, open, honest and empathic approach. Motivational techniques and skills such as active listening, validation, positive regard and summaries can strengthen the partnership and help the adolescent identify the goals they would like to achieve. This motivational and engagement process is especially important with adolescents and is a precursor to any CBT intervention.

Two other aspects of the CBT process need careful attention with adolescents. The first is the development of objective empiricism, a central tenet of CBT, in which beliefs, assumptions and cognitions are subject to open examination. Adolescents can present in a very egocentric way and be convinced that their understanding is the only option. It is not uncommon to find that such a stance results in the therapist attempting to persuade the adolescent that there are alternative explanations. However this is often counterproductive and results in adolescents defending their views more vigorously and becoming even less willing to engage in any objective evaluation. Instead it is useful to adopt an open and curious position in which adolescents are helped to question their views through a Socratic dialogue. This process requires the therapist to adopt a reflective position in which the

adolescent's views are acknowledged but not directly challenged. Instead, adopting a curious manner, the therapist asks the adolescent to reflect upon new, inconsistent or contradictory information. Adolescents are encouraged to demonstrate how this information fits with their beliefs and assumptions or to consider how their views may need modification. Through this process adolescents are helped to appraise their views critically.

The second aspect of the relationship that needs attention is the notion of the collaborative partnership. Although there is an inherent power imbalance between the therapist and adolescent which needs to be acknowledged there are many ways in which the adolescent's active and leading role can be promoted. The nature of the collaborative partnership and the idea of learning together may be unfamiliar to many adolescents and needs to be made explicit at the start of CBT. Therapists need to promote objective empiricism and explicitly acknowledge that they do not have the solutions but that they will work with the adolescent to discover what works for them. The adolescent's contributions are encouraged and reinforced through active listening skills that convey respect, interest, empathy, validation and acknowledgement. Shared communication can be developed by using the adolescent's vocabulary. However therapists should ensure that they have a full understanding of the adolescent's language and avoid the use of adolescent slang which can sound false.

Adolescents can be encouraged to take a leading role in target setting and goal planning and in determining the agenda, order and content of sessions. Similarly, they will have a leading role in determining home assignments or practice tasks. Finally self-efficacy needs to be promoted and skills and strengths from other aspects of the adolescent's life which are working well should be highlighted.

Conclusion

This brief overview has highlighted the techniques and process of undertaking CBT and how these need to be adapted with young children, children aged 7–11 and adolescents.

Particular attention needs to be paid to developmental issues and to ensure that the concepts and techniques of CBT are suitably adapted and consistent with the child's or adolescent's abilities. Methods and concepts will need to be adjusted along a number of dimensions e.g. simplicity versus complexity, abstract versus concrete and will involve a mix of verbal and non-verbal methods. Careful attention needs to be paid to the process of CBT and the development of a collaborative partnership and the promotion of key concepts such as empirical empiricism and guided discovery. The role of parents in CBT with children and adolescents needs to be assessed and clearly defined.

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Issues in evaluation of psychotherapies

Miranda Wolpert, Andrew Fugard and Jessica Deighton

Introduction

This chapter aims to help frontline CBT therapists to appreciate the key issues in the evaluation of psychotherapies including a consideration of how best to undertake routine evaluation of their own practice. The first part provides an overview of current issues in academic research and evaluation of psychotherapy. It explores how researchers have attempted to address the key challenges, namely: the inference of causality in relation to hypothesised therapeutic impact; linking change to potential underlying mechanisms; and assessing the everyday life significance of impact. The second part focuses on issues faced by those who wish to undertake routine evaluation of their own clinical practice, in particular: how to choose what, how, when and whom to evaluate, as well as how practitioners might make use of any information derived from such endeavours to inform their own practice. The chapter concludes by considering possible ways forward whereby academic and practitioner evaluation can combine in helpful ways to improve our understanding of this complex but vital area.

Research questions

To combine and paraphrase the wisdom of many authors in this area, the aim of academic evaluation of psychotherapy is to determine ‘what works for whom and why?’. Building on Kazdin (2008, p. 151) the following list can be seen to be amongst the key questions researchers are seeking to address:

1. What is the impact of treatment relative to (a) no treatment and (b) other treatments for a given problem?
2. What components contribute to change and what parameters can be varied to improve outcome?
3. What patient, therapist, treatment and contextual factors moderate or mediate outcomes?
4. What processes within or during treatment are responsible for mechanisms of therapeutic change?
5. To what extent are treatment effects generalisable across populations, problem areas and contexts?

6. What are the costs, risks and benefits of intervention or lack of intervention (including economic costs but also risks of iatrogenic effects of treatment or risks of harm by lack of treatment)?
7. What processes outside treatment are responsible for change?

Thanks to a range of impressive research over the last few decades we now have important research findings particularly in relation to question 1 above (the detail of which in relation to CBT for children is covered in individual chapters in this book), but without a comparable increase in our knowledge regarding questions 2–7.

Inferring causal mechanisms

Challenges to inferring causal mechanisms in child and adolescent psychotherapy include:

1. Correlation alone does not imply causation. If a child's mental health improves after receiving a particular intervention it may be the result of the impact of the intervention or some other factor. In particular, correlations supporting a hypothesised causal relationship between two variables may be caused by an unmeasured or uncontrolled 'third' variable. In child mental health, many difficulties spontaneously improve (for reasons which are not always clear), or improve with psychosocial development.
2. Regression to the mean is likely to occur, whereby, given error of measurement, a child or family reporting a high degree of problems initially is more likely to report fewer problems subsequently as their scores veer towards the mean.
3. Improvement in scores due to people reporting more problems in the first than in subsequent interviews is likely to be a particular problem in studies where outcomes are based on service user report after a relatively short period of time.
4. Selection bias of those who receive treatment, complete treatment or complete questionnaires, as opposed to those who drop out of treatment or refuse to complete questionnaires may lead to misleadingly high estimates of treatment efficacy (Clark *et al.*, 2008).
5. The difficulty of disentangling specific and non-specific effects of interventions. This is particularly difficult for CBT as placebo effects, often considered unspecific effects, have a psychological basis which overlaps with many treatment effects, such as conditioning, and are important across a range of treatments. The placebo emerges as part of the therapeutic relationship and McQueen and Smith (2012, p. 2) go as far as to argue that 'Psychotherapy can be seen as a pure form of the doctor–patient relationship, stripped of pharmacological effects'.

A range of research designs has been used in order to try and address such issues. Two designs are explored below as exemplars of key different approaches currently being used in child and adolescent psychotherapy research in order to evaluate the reasons for outcomes in relation to causation:

1. Randomised controlled trials of outcome.
2. Use of routinely collected outcomes in large-scale datasets.

Randomised controlled trials

Whilst there is some debate about the precise hierarchy of evidence, and increasing understanding of the limitations of randomised controlled trials (Rawlins 2008) – as will be discussed

below – randomised controlled trials (RCTs) are regarded as the most powerful forms of evidence available, and this is likely to remain true for the foreseeable future (Cooper, 2011).

This is because RCTs require researchers to control for factors other than interventions that might influence outcomes so that if differences are found between those receiving different interventions, these can be most likely attributed to the intervention and not other differences between the groups being compared. The random assignment to groups is particularly important in controlling for unknown biases so that hopefully any unknown confounding factors are randomly distributed across the groups.

Whilst their rigorous attempt to control for unknown biases is commended, the limitations of RCTs, particularly in their ability to inform routine clinical practice, are increasingly acknowledged. Those who take part in RCTs may not be representative of those seen in routine clinical practice. Those who agree to take part in a research project may be systematically different from those who do not and they generally (though not invariably) have less severe and fewer comorbid problems than those seen in routine care (Westen & Morrison, 2001). Treatment provided as part of an RCT may be rather different in controlled trials than in routine practice, involving as it often does standardised and manualised treatment which is generally not present in routine work; this, it has been argued, may favour some approaches over others (e.g. CBT over psychodynamic psychotherapy). Randomisation can also eliminate observations at the extremes of a distribution which are worth studying in their own right. (See Goldstein, 2011 for a discussion of these points.) In spite of these limitations the RCT remains the gold standard of research of causal relationships as it allows the direct inference of causality.

Use of routinely collected large-scale datasets to explore outcomes

A complementary approach to RCTs that is increasingly being explored by researchers is the use of large-scale routinely collected outcome data. Commonly these rely on data being collected routinely in clinical services based on practitioner, child and parent reports of symptoms of mental health problems either pre- or post-treatment or across the duration of treatment (different models of routine data capture are considered in the second section of this chapter below). Symptom scores at the outset are compared with scores collected later or at the end of treatment to ascertain whether improvements in mental health can be observed.

This approach also has its difficulties and challenges. As Clark *et al.* (2008, p. 631) note, 'In the absence of randomisation, one has to work very hard to demonstrate that unbalanced patient characteristics or referral practices could not have substantially influenced the treatment outcome comparison.' One approach is to compare outcomes from the routine practice under consideration with that from earlier research findings (possibly from RCTs). Another is to use a naturalistic control group. Ford *et al.* (2009) took the latter approach and derived an 'added-value' score based on parental report on a mental health questionnaire in widespread use (the Strengths and Difficulties Questionnaire; SDQ). This metric estimates the likely effect of treatment compared with a non-treatment control group after a 6-month period. The control group children whose data were used in the development of the score formula were identified in a national study of mental health problems in the UK as likely to have mental health problems ($n = 609$), the vast majority of whom (85%) had not received any treatment by the follow-up. The predicted outcome without treatment was then compared with the actual outcomes achieved by a group of children who did receive treatment.

Even if appropriate proxy measures for a control group can be found the problem of non-random drop-out with such an approach is considerable. Whilst commending the general approach of using a large routine collection of outcome data to explore the impact of psychotherapy (in this case in adults) Clark *et al.* (2008, commenting on Stiles *et al.*, 2007) point out that misleading results may be found if incomplete datasets are used, since systematic biases are likely in those who complete measures. In order to achieve 90% or more completion rates they recommend outcome measures be given every session to ensure that there is a final measurement point even for those who drop out prematurely.

However, this approach, equivalent to Last Observation Carried Forward (LOCF), is not without problems either and can lead to yet more biases. This approach may under-rate improvement in those who drop out or refuse to complete measures but are still getting better. Whereas for those who complete treatment it may lead to over-rating of improvement, for instance given variation in symptoms it is possible that at the moment of discharge scores are uncharacteristically low.

The main benefit of the exploration of routine outcome data over an RCT design – particularly where data are collected in each session attended and where proxy control groups exist – is that it allows the exploration of processes that cannot readily and ethically be experimentally manipulated or randomly allocated such as therapeutic alliance, risk factors and engagement.

Determining underlying mechanisms accounting for change

Because research exploring the mechanisms through which treatment is hypothesised to impact on outcomes often relies on correlational designs, the chain of causality can be hard to establish – as discussed above. Therefore, it is vital that research exploring these processes make all causal assumptions explicit. In doing so it is important to maintain a distinction between causal theories of how a mental health problem originally developed and causal theories of therapeutic change.

One of the issues that may have hampered development in this regard traditionally relates to an assumption that focus on causes of dysfunction will necessarily lead to greater understanding in relation to processes of change. Some of the effective CBT treatments developed, such as that for anxiety detailed in this book, relate to increasingly sophisticated models of how to produce change based on understanding of maintenance factors (Clark, 1999) rather than a focus on factors that caused the development of anxiety.

Yet research that links processes in therapy, even in CBT, with outcomes can still be argued to be the least developed aspect of psychotherapy evaluation in child and adolescent mental health (Kazdin, 2008). The links between what is theorised as causing change and actual outcomes remains contested and there are some suggestions that the mediating mechanism may be more varied than some CBT theorists might suggest. For example some studies suggest fostering of emotional processing may be more central to CBT than previously theorised (e.g. Baker *et al.*, 2012). Others have argued for the need for research to explore how existing change-promoting strategies brought by children and young people into therapy may interact with therapist suggestions and impact on outcomes (Edwards, 2003; Mackrill, 2008). It is hoped that in coming years this area of research, by adopting a broader perspective, may lead to interesting new insights that might in turn inform intervention models.

Determining significance of impact

Whichever approach is used to uncover associations between psychotherapy process and outcomes, a fundamental and largely unresolved issue for all evaluation of child and adolescent mental health outcomes is how to determine what constitutes *meaningful* (or *clinically significant*) impact on everyday life, e.g. at home, work or school, in peer relationships. As is now well recognised, statistical significance does not imply clinical significance. This is true for a number of reasons. A statistically significant mean difference between large groups may be tiny and not clinically significant. Even large changes found using a given questionnaire may not be meaningful in terms of lived experience, depending on the properties of the questionnaire.

To try to rise to the challenges raised by the limitations of measurement and use of statistical significance alone, researchers have developed indices of *clinically significant* change. A variety of approaches have been suggested which has made it more difficult to make comparisons between studies (Lambert & Ogles, 2009). The two most common ways are to look at *recovery* and *reliable change*. Recovery involves moving from high symptom scores pre-treatment to scores that fall within the non-clinical sample range after treatment. Reliable change aims to assess the amount of change required in an outcome measure to be able to say with a degree of confidence that the magnitude of change observed is not solely attributable to measurement error. There is a variety of Reliable Change Indices; see Jacobson and Truax (1991) for the most common approach.

Even when metrics such as ‘recovery’ and ‘reliable change’ are used challenges remain. How should impact be evaluated for someone who starts below the clinical cut-off point or just above? One way currently being trialled in adult mental health as part of the UK Improving Access to Psychological Therapies (IAPT) programme for adults is to require both recovery and reliable change to occur for clinically significant change to be deemed to have taken place (<http://www.iapt.nhs.uk>). However, it is not yet clear if this is an appropriate standard to set. Reliable change in part depends on the psychometric properties of the instrument used to measure change; therefore a change may be reliable because the measurement instrument is highly reliable but it may not be clinically meaningful change.

Whether data are derived from RCT or naturalistic studies, the issue of how best to assess what constitutes meaningful impact, whether on average for a group or for a particular child and family, remains a key issue of debate for researchers. It may be that what is required is triangulation of information from a range of sources, including the use of idiographic measures that relate to issues of central concern to the individual service user or family member, and it is in part this approach that will be considered when reviewing evaluation in routine practice below.

Issues in evaluation of routine practice

Whilst clinicians need to draw on findings from systematic controlled studies concerning what works for whom and why to help guide their initial decisions about treatment choices and approaches, the key aims of routine evaluation of psychotherapy by service providers can be characterised as helping them answer questions about the particularity of their own work with specific individual clients in their given context: ‘How effective is my practice and how can I make it more effective?’

Despite much interest and commitment internationally at a policy level in including routine outcome measurement as a core part of clinical practice, in order to help answer the questions above, it is important to note that many clinicians and service users have concerns about the implementation of routine outcome evaluation in clinical practice.

In a relatively recent survey only 11% of British psychiatrists routinely used standardised measures to assess clinical change in their patients and the majority had never used measures (Gilbody *et al.*, 2002). There may be many reasons for this. Clinicians perhaps worry that measurement of this type does not capture the complexity of the issues faced by their clients, that the measures will increase their administrative burden by being another thing to be recorded (taking away from face to face contact), and that findings will be misinterpreted (for example lack of change in service users for whom non-deterioration is the best outcome possible, or even deterioration for some cases where the expected trajectory could have been even worse) and used to justify service decisions not in the best interests of their clients such as cutting services.

Clients in Child and Adolescent Mental Health services have expressed similar concerns (Moran *et al.*, 2011). An added concern of clients is that if they report improvement this may mean they are discharged from the service and denied further help, leading to concern that they may need to manipulate their response to ensure continued help. Service users, like clinicians, are concerned about the development of a 'tick box' culture that detracts from meaningful human interaction and the discussion and exploration of their own unique experiences and needs.

If evaluation of psychotherapy in practice is to become a routine part of clinical work it is likely that it needs to be undertaken in a context protected from snap decisions and blame. There must be space for clinicians and service managers to reflect on what may be learnt from routinely collected data in such a way as to improve their own practice. Where this is supported there is emerging evidence that use of routine tracking of outcomes and impacts in psychotherapy can reduce drop-outs and improve outcomes (Lambert, 2005; Miller *et al.*, 2006; Reich & Bickman, in press).

Two current projects in the UK highlight several of the issues raised by any attempt to undertake practitioner evaluation of routine practice. These are the CAMHS Outcomes Research Consortium (CORC) and The Children and Young People's Improving Access to Psychological Therapies (CYP IAPT; <http://www.iapt.nhs.uk/cyp-iapt>).

The CAMHS Outcomes Research Consortium (CORC; see www.corc.uk.net) is a learning partnership of service providers who have agreed a common approach to routine evaluation of psychotherapeutic input across their services and to using the data to inform and improve practice (Wolpert *et al.*, 2012). Its members comprise clinicians and services across the UK and Scandinavia and the current authors are centrally involved in its work. The work of CORC in collating outcomes and helping service providers and others make sense of them to inform service development will be particularly drawn on below.

The Children and Young People's Improving Access to Psychological Therapies initiative is an England-wide initiative in which the current authors are involved, which includes a particular model of routine outcome evaluation that many CORC members are trialling (as well as non-CORC members) and that draws on and extends methods developed within CORC. The model of outcome evaluation will involve a range of standardised and idiographic measures and focuses on session by session measurement. The thinking behind this approach will be explored as a case study below.

For clinicians wishing to build routine evaluation into their own practice, there is a range of choices to be made about how to conceptualise what constitutes a ‘good outcome’ (both in terms of whose views to capture and in relation to what domains), about what it means to collect this information and then, crucially, how to draw on the (inevitably flawed) information obtained to draw inferences to guide practice. It is to an exploration of these choices that we will now turn, drawing on examples from CORC and CYP IAPT as relevant.

Whose outcome is it anyway?

Traditionally routine evaluation of mental health outcomes often relied on questionnaires completed by the clinician rating children’s and families’ problems using one or more standardised scales. Whilst practitioner report can be helpful to ensure a complete dataset and to view overall progress across a caseload, it has been criticised as being susceptible to influence by perverse incentives (Marshall *et al.*, 2000) and it does not provide much new information to an individual clinician since it relies totally on their own perception. In addition recent focus by both policy makers and service user groups on the importance of patient-reported outcome measures (PROMS) and patient-reported experience measures (PREMS) across healthcare generally has emphasised the need to ensure that the views of service users are centre stage for any evaluation of outcomes (e.g. Badham & YoungMinds, 2011; Department of Health, 2010).

Teacher reports can be used when behaviour in school is in question. Research suggests that teachers are accurate reporters of children’s externalising symptoms (e.g. aggression, conduct disorder); however, they are less well able to provide accurate information on children’s internalising symptoms (e.g. depression, anxiety), perhaps due to the differential salience of these two indices of adjustment within the classroom (Atzaba-Poria *et al.*, 2004). Moreover getting busy teachers to complete questionnaires as a regular source of outcome data can be difficult.

Parent reports have also been employed in mental health routine outcomes evaluation. These are often relied upon when children are considered too young to provide self-reports (e.g. Levitt *et al.*, 2007). Whilst there may be some possibility of bias due to parents’ lack of awareness of internalising difficulties or the impact of their own mental health status on their judgements (Conrah *et al.*, 2003; Verhulst & Van der Ende, 2008), parent-reported outcomes have been used to develop the added-value score described above and so can be used in some instances to compare outcomes for children seen in services with those not seen by services.

There are strong moral- and rights-based arguments for the use of child self-reports as a key perspective wherever possible. However, there are limitations to the use of child self-reports. In particular, younger children may be unreliable reporters in that they may be more likely to give socially desirable responses; they may be also less able to understand the language or the concepts used in self-report measures; they typically respond based on ‘the here and now’ and they may be less self-aware of themselves than others around them (Van Roy *et al.*, 2008).

For the reasons described above it may well be sensible to follow the approach of CORC which recommends clinicians collect outcome data from multiple perspectives and as a minimum to seek to include the views of the child, parent/carer and practitioner. CYP IAPT suggests a focus on the child wherever practical but with the parent or carer involved as clinically relevant. Clearly there is much room for clinical judgement in this regard as will be discussed when CYP IAPT is presented as a case study below.

It is important to note that research and clinical experience suggest that different perspectives on outcome cannot be combined in any simple way. In particular repeated studies have all found very low agreement between different perspectives (Verhulst & Van der Ende, 2008). This may relate not just to limitations of measurement but also to real differences in viewpoint between different participants, as well as to the child behaving differently in different settings, such as home and school. Hawley and Weisz (2005) note that in a staggering 75% of instances there was no agreement at all between child, parent or practitioner in terms of the problems that brought them to seek help, let alone the outcomes of any intervention. Therefore in reviewing evidence of outcomes in their own practice practitioners need to consider these from each of the different perspectives.

What domain(s) should be evaluated?

There are multiple domains that could be taken as proxies for a 'good outcome'. These might include: attainment of agreed goals, symptom reduction, improved functioning in school, at home or with peers, change in family relationships, academic attainment and/or attendance, burden on others, sense of family being able to cope with a particular behaviour or set of circumstances, and potentially many more.

In routine practice determining which domains to focus on in terms of measuring outcome of CBT is likely to involve decision making in which different factors need to be balanced. Improvement in one domain may not equate with improvement in another and each may have its advantages and disadvantages. For example whilst there are arguments for focusing attention on domains where there are good standardised measures (such as symptom change), or where there is readily available external information seen as important to a range of parties (such as academic attainment or attendance) there are also arguments for focusing on domains where the focus is on issues specific to the individual child and family (such as in relation to progress towards individually agreed goals), and in particular to those which feel important to the child themselves (which may not be academic attainment or attendance for example) but which lack well-standardised measurement tools (Weisz *et al.*, 2011).

Thus clinicians wishing to evaluate the effectiveness of their own work are likely to need to make decisions in which they balance the need for measures of change which can be compared against norms with the wish to focus on individually determined goals and issues that are of most relevance for the individual clients they are working with (Weisz *et al.*, 2011; Wolpert *et al.*, 2012). One solution to getting this balance right, suggested by both CORC and CYP IAPT, is to seek to use a mixture of bespoke and standardised measures so that service providers can consider change and progress across a range of domains, and to seek to make measures as short as possible to ensure ease of use.

How often to measure impact or change?

Traditionally routine outcome evaluation focused on measurement when children and young people were first referred to the service (time 1) and at some pre-determined point in the future such as 6 months into treatment, at the end of treatment, or 6 months after the end of treatment (time 2).

However there were real problems with this approach. Perhaps the most significant problem was getting questionnaires completed after the initial measurement. The experience of child mental health collaborative projects such as CORC mirrored that of adult mental health collaborative projects in finding low time 2 response rates of 24% (Wolpert *et al.*, 2012).

The key problem with poor response rates is that data missing at follow-up are unlikely to be random. This means there will, in all likelihood, be systematic differences between those for whom time 2 data are available – about whom some measure of improvement can be derived – and those for whom no time 2 data exist. Clark *et al.* (2008) observe that often those that do not provide time 2 data are those who have not engaged with treatment or who have been in some way dissatisfied with support received. Conclusions drawn from outcome data that are incomplete may lead to overestimates of improvement/recovery rates.

The proposed solution that is increasingly being adopted involves session by session monitoring whereby respondents (children, parents and, potentially, practitioners) complete measures at each meeting. This is the approach being trialled as part of the Children and Young People's IAPT alluded to above. However the increased work demanded by this approach needs to be considered. There is some evidence of measurement fatigue if measures are administered as much as once a week, and it may be that measurement around every third or so meeting is the most feasible way forward (Weisz, personal communication). However to achieve this it is likely that practitioners have to aim for every session. This in turn leads to complications as there is a danger atypically poor sessions (which would be of interest) might be excluded. So in conclusion, as with so much in clinical research and practice, there are costs and benefits to every solution.

How to use outcome information to inform practice

Finally we turn to the key issue of making use of the information gained by routine evaluation in practice, however undertaken. Three principal ways will be discussed:

1. Qualitative exploration and review of data.
2. Trajectory tracking for individual cases.
3. Use of aggregated outcome data for benchmarking.

Qualitative exploration and review

A major barrier to the use of outcome data to inform practice is the reluctance of clinicians to look at data that have been collected for their benefit. Anecdotal evidence suggests that busy and sceptical clinicians are often slow to view questionnaire returns. A group of UK-based clinicians and researchers are drafting suggestions on how clinicians might make use of routinely collected outcome data to support CYP IAPT (Law, 2012). They suggest a number of approaches to using outcome evaluation in everyday practice for frontline practitioners including the examination of data for themes. For example setting out information so it is easy to compare progress on several clients, rather than only one at a time, in order for instance to hypothesise whether progress is better with some presenting problems than others, or whether responses are better for some questions (such as feeling listened to) than others (such as offering good explanations). These sorts of explorations of themes can lead to ideas for further training or topics to discuss in supervision.

Trajectory tracking for individual cases

The pioneering work of Lambert (2005; Lambert & Shimokawa, 2011) and colleagues primarily with adults but also with some child and adolescent services, has shown how in routine outcome evaluation each session can be used to track change over time and to identify early where service users are heading off track in a way that clinicians are not able to spot

without the use of measurement. Lambert has developed clinical support grids to try and help clinicians work with cases where routine measurement suggests there is a danger of poor outcomes or drop-out and there is some evidence that this approach may be particularly helpful with these groups.

A variation of this approach has been adopted by Miller *et al.* (2006), using a different measure but employing similar principles. This approach has been pioneered in the UK by Timimi and colleagues who have developed an articulated model in CAMHS which they refer to as Outcomes Orientated CAMHS (OO CAMHS; www.oocamhs.com). Key elements of this model include the use of progress tracking each therapy session and feedback on the meeting experience, both of which are attended to and reflected upon as part of the clinical interaction. Change is monitored over time and if there is no change after five meetings the model suggests the case is brought back for team review and in many cases the child and family are referred to another practitioner.

Use of aggregated outcome data for benchmarking

A further way that outcome data can be used in frontline practice is to compare outcomes across services or individuals. This clearly needs to be done with great care to avoid perverse incentives to report outcomes misleadingly, to ensure 'like for like' comparisons and to aid meaningful interpretation.

The approach taken by CORC is to produce annual reports of aggregated outcomes for teams of clinicians working within the collaboration. These are then compared with aggregated outcomes for consortium members as a whole and any areas of statistically significant difference noted.¹ Members are advised that these should be interpreted in terms of their local knowledge and triangulated with other data. Thus, a series of hypotheses can be tested to explore any differences to check if they are the result of differences in methodology, population being worked with, data entry errors or genuinely reflect differences in outcomes for similar groups of children and families.

When viewing this sort of data it is important to be mindful of the dangers of over-interpretation when datasets are small so that what appear to be large variations in outcomes between services may in fact reflect normal variation between data points to be expected when small numbers are involved. Use of funnel plots to map comparative data to ensure meaningful interpretation may be very helpful in this regard. These plot the statistic of interest, e.g. the mean outcome at a service, against a measure of its precision such as sample size (Spiegelhalter, 2005). Together with control limits, e.g. 95% confidence intervals of the mean (which become narrower as the sample size increases, producing a funnel shape), it is possible to ascertain which services have unusually good and unusually poor outcomes.

The approach being taken by CYP IAPT, in line with that of Adult IAPT, will be to report on service level recovery, deterioration and change rates. It will also explore the impact of contextual factors on any of these, such as whether the young person is a looked-after child, suffers from any physical health problems, or if there are any contextual factors in the family situation.

¹ CORC is looking to modify this model further by making comparisons more specific between services in similar contexts and with similar populations of service users.

Concluding remarks: linking academic and practitioner research

As can be seen from the foregoing discussion there is no shortage of issues to consider in evaluation of psychotherapies for children and young people. However it would also be true to say that a lot has been learnt and this may be a moment of opportunity for further development in the field. In particular we think there is a real possibility of greater links between academic and practitioner research to bring both rigour and the realities of real practice together.

Below we share some thoughts on three possible avenues for further exploration and development which we think could lead to promising developments in the coming years.

Exploring individuality in terms of trajectories of change

In recent years increasing attention has focused on the use of multiple time points both to address the issue of non-completion discussed above but also because where multiple data points exist, sophisticated longitudinal modelling techniques can be applied to these large datasets to explore in more detail trajectories of change, for instance whether change is non-linear over time and whether there are sudden change points.

Evaluation of psychotherapy has tended to focus on mean changes for groups. Yet it is known that the mean change for the group may mask real differences between subgroups e.g. no overall change in the group mean may represent massive change for some subgroups and no change or deterioration for other subgroups. There is increasing interest in investigating whether analyses can allow detection of different subgroups and greater understanding of their trajectories of change.

Starting to look more at individual trajectories is likely to be a key way forward in the future. There is substantial within-group variation in both outset problem severity and improvement or deterioration. Datasets with multiple data points such as those arising by the sort of session by session models being suggested above, can be statistically modelled using sophisticated techniques such as mixed-effects models, also known as hierarchical or multilevel models. Various clustering algorithms may also be used to group those with similar trajectories of outcome, allowing distinct groups of improvement or deterioration to be discovered bottom-up. The resulting clusters may then be related to known differences in cases, e.g. presenting problems, or suggest groups for further study.

Exploring more nuanced models of process and outcomes

As previously discussed, an over-focus on causal models for particular diagnoses may have distracted attention from attempts to model change mechanisms in more nuanced ways. One suggestion emerging from Borsboom (2008), Cramer *et al.* (2010) and others is that an alternative approach might focus rather on networks of symptoms that should be viewed as both multi-determined and multi-determining, and relate to a range of traditional diagnostic categories rather than being tied to only one. Using this model, change would be tracked by mapping the links and interactions between symptoms for individuals or groups.

This may tie in with emergent thinking in research on judgement and decision making where investigations of how front-line clinicians conceptualise their cases show that they may map their understanding in terms of networks that help them focus on the most

relevant areas for change. For instance de Kwaadsteniet *et al.* (2010) presented clinicians with a series of vignettes and asked them to draw causal diagrams indicating maintaining and longitudinal causal factors. These maps predicted how effective clinicians thought particular interventions would be.

These emerging approaches may well mesh and be supported by the increasingly personalised psychometric approaches in development. Whilst currently paper-based questionnaires are still the most widely used means of collecting information, an increasing range of interactive mobile-phone and computer-based questionnaires are now emerging. One possibility offered by online administration is the option of iterative measures where the number and content of future questions are determined by answers to earlier questions, and questions may be drawn from an item bank rather than used in fixed ways in pre-set scales (Wolpert *et al.*, 2009).

Developing further academic–practice links

Practitioners need to continue to be informed by the emerging findings from academic research, and researchers need to continue to be informed by data arising from frontline work. It is above all crucial that practitioners and researchers continue to work together to ensure that any routine outcome data feedback provided to inform frontline practice is also informed by the latest research and statistical understanding to ensure meaningful interpretation and appropriate caution. The further development of learning collaborations and research–practice networks should be encouraged. This will allow both more services to become involved in multi-site RCTs but also ensure that research expertise is available to allow frontline practitioners to interpret their own data in meaningful ways in the light of relevant national and international comparative data.

In conclusion, whilst there are many issues yet to be resolved, there are positive ways forward and not only can and should practitioners draw on learning from large-scale academic studies and reflection of their own practice, but they should also link with academic colleagues to ensure routine evaluation of psychotherapy continues to yield useful information that can inform their immediate frontline work with children and families.

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Section 2

Engagement and assessment

Engagement

Isabel Boege and Dennis Ougrin

Introduction

Adolescence, the lifespan phase between childhood and adulthood, entails major developmental changes across physical, cognitive, emotional and interpersonal spheres. Academic careers are completed, young people situate themselves on the job market, establish friendships as well as first romantic relationships. Failing to do so during adolescence has obviously serious implications for health, social and economic outcomes in adulthood. However adolescence is also the stage at which most mental disorders, which are often not detected or treated until later in life, commence. A review of community-based and school-based epidemiological studies of mental disorders in adolescents concluded that in a year at least 20% of people aged 12–24 will experience at least one common mental health disorder, with higher rates in those aged 18–24 (prevalence around 27%) than in those who are aged 10–17 (prevalence around 12%) (Patel *et al.*, 2007). International evidence from high-income countries is that the most common mental health problems in adolescents are major depression and other disturbances of mood, conduct and substance abuse disorders, suicidal behaviours and eating disorders (Fisher *et al.*, 2011). Young people also have a high rate of self-harm, and suicide is a leading cause of death (Patel *et al.*, 2007). The obvious implications of these findings are that it is essential to focus on early interventions that aim at preventing progression of primary disorders as well as eventual development of comorbid disorders. Initial and essential steps in this direction rely on identifying adolescents at risk, and engaging them in therapy.

In this chapter we shall focus on therapeutic engagement in psychological therapy with adolescents. First, concepts relevant to engagement will be defined and the importance of engagement examined. Factors influencing engagement as well as the interventions likely to improve engagement will then be discussed. The emphasis throughout will be on interventions relevant to clinical practice.

Therapeutic engagement and therapeutic alliance

Active engagement with clients is well known to be essential for treatment effectiveness (Jungbluth & Shirk, 2009). Engagement has been defined in various ways.

It can be conceptualised as a process facilitating treatment alliance, involvement and completion, and is aimed at producing a favourable treatment outcome among youth in

cognitive behaviour therapy (CBT) (Shirk & Karver, 2006) as well as in other treatment approaches.

Engagement can be measured by examining two related factors: treatment attendance and treatment adherence, both of which are necessary, but neither of which is sufficient on its own to achieve therapeutic goals. Neither attendance alone without adherence to therapy content nor engaging in single sessions whilst missing many sessions in between are likely to result in effective treatment. Two primary components of engagement in young people have to be differentiated: one component is behavioural and consists of the adolescent's performance of the tasks such as attendance and homework necessary to implement treatment and achieve a successful outcome. The second component is attitudinal. Adolescents are unlikely to engage in therapy unless they perceive the benefits as outweighing the costs. This component refers to the emotional investment in and commitment to treatment that follows from believing it is likely to be worthwhile as well as beneficial (Staudt, 2007a).

Engagement can also be defined by the extent of the therapeutic alliance, the relational bond between the therapist and the young person which binds the therapist and the young person together against the 'pain and vicissitudes of therapy' (Bourdin, 1994). A good therapeutic alliance is linked with patients endorsing treatment goals, remaining in treatment longer and reporting higher levels of satisfaction (Thompson *et al.*, 2007).

Karver *et al.* (2005) proposed that a therapeutic alliance linked with good engagement consists of three components:

- An emotional–affective connection (e.g. bond, trust, attachment, feeling accepted and understood).
- A cognitive connection (e.g. agreement on goals, tasks and believing in the therapist's credibility).
- A behavioural connection (e.g. collaboration on tasks, openness in talking with the therapist and other forms of client participation).

In summary, engagement can be seen as both a description of the patient's adherence and attendance and as a process aimed at achieving good adherence and attendance through establishing a therapeutic alliance.

Is engaging with adolescents important?

Engaging with adolescent patients presents unique challenges (Liddle, 1995). Adolescents rarely refer themselves for psychological therapy or mental healthcare (Russell *et al.*, 2008). Parents, teachers, social workers or healthcare practitioners are often the primary driving force behind scheduling appointments. Even if adolescents do attend appointments they may not recognise their difficulties in the same way their parents or other adults do.

At her first appointment Mary, a 15-year-old girl with depression and self-harm, entered the room, sat down, folded her arms in front of her chest tightly and announced: 'I am not going to say a word whilst being in this room. I do not have a problem. I did not want to come. Mum has a problem. Not me. Mum made me come here.'

Developmental issues related to emerging autonomy and challenging adult authority may complicate therapeutic engagement with adolescents further. Adolescents seem especially fearful of the stigma associated with attending therapy (Moskos *et al.*, 2007), a fear that often leads to rejection of treatment (Ptakowski, 2010).

Approximately 50% of all adolescents and their families who receive mental health services disengage prematurely (Nock *et al.*, 2005). Of adolescents seen in an emergency department, 50–77% are non-adherent with outpatient treatment (Groholt *et al.*, 2009; Haw *et al.*, 2002; Trautman *et al.*, 1993). Around 50% are likely to attend four or fewer outpatient follow-up sessions (Groholt *et al.*, 2009; Spirito *et al.*, 1992) and 25–50% of the adolescents presenting for emergency care are likely not to attend any follow-up sessions (Granboulan *et al.*, 2001; Taylor & Stansfeld, 1984).

The initial treatment phase is the time of the highest drop-out risk (Tryon, 2003) but drop-out can easily occur at any time during treatment (Coatsworth *et al.*, 2001; Liddle, 1995).

So is engagement important? The adult literature suggests that disengagement with treatment is one of the strongest predictors of poor outcomes in those presenting to emergency departments (Cremniter *et al.*, 2001). There is growing evidence that adolescents with disengaging coping styles also tend to have worse psychosocial outcomes (Votta *et al.*, 2004). Furthermore disengagement in high-risk adolescents after presentation to an emergency department is not only a marker of poor psychosocial outcome in these youths (Burns *et al.*, 2008; Piacentini *et al.*, 1995; Rotheram-Borus *et al.*, 1996) but may be linked with a higher risk of repeated self-harm (Pillay & Wassenaar, 1995; Votta *et al.*, 2004). Engaging adolescents is hence crucial for therapeutic work.

Mary did engage eventually during the first contact after her mother agreed to leave the room, and she had been offered attentive listening, but during the 1-year course of therapy she never lost her slight distrust towards therapeutic interventions as well as her fear of being stigmatised whilst being in therapy, taking great care that no one could see her entering the clinic grounds.

In summary, treatment engagement appears to be necessary for achieving treatment goals. Poor engagement is linked with poor treatment outcomes as well as with psychosocial adversity in general. Engagement is, however only part of the whole picture; it is not sufficient on its own for success in treatment.

Factors influencing engagement

Factors influencing treatment engagement in adolescents can be divided into the following four categories: adolescent-related factors, family-related factors, therapy-related factors and therapist-related factors.

Adolescent-related factors

Studies indicate that older age (Piacentini *et al.*, 1995), male gender (Piacentini *et al.*, 1995), belonging to an ethnic minority (Goldston *et al.*, 2003; Wilder *et al.*, 1977) as well as low socioeconomic status (Armbruster *et al.*, 1994; Goldston *et al.*, 2003; Wilder *et al.*, 1977) are all associated with poor engagement in young people. It is of interest that psychosocial adversity seems to be linked with disengagement in the early phases of therapy but during subsequent treatment phases it is less important (Armbruster *et al.*, 1994).

Low severity of presenting problems as well as low severity of general psychopathology in young people have also been found to be associated with poor engagement (Brookman-Frazee *et al.*, 2008; Granboulan *et al.*, 2001; Taylor & Stansfeld, 1984). There are two important exceptions: there appears to be an inverse correlation between engagement and the severity of substance misuse (Pelkonen *et al.*, 2000) and the severity

of conduct disorder (Brookman-Frazee *et al.*, 2008; Burns *et al.*, 2008; Russell *et al.*, 2008). In addition, using psycho-pharmacotherapy in young people (Brookman-Frazee *et al.*, 2008; Pelkonen *et al.*, 2000; Piacentini *et al.*, 1995) has been repeatedly associated with better engagement as have higher levels of family conflict perceived by the youth (Dakof *et al.*, 2001).

Family-related factors

Poor engagement in youth is associated with parental low socioeconomic status (Brookman-Frazee *et al.*, 2008) and poor insurance coverage (in those countries with non-universal health insurance) (Armbruster *et al.*, 1994), high stress (Kazdin & Mazurick, 1994) as well as low expectations for treatment outcome (Castro-Blanco & Karver, 2010). Adolescents are more likely to disengage if parents have low expectations for adolescent change, if parents have little confidence in their ability to effect change in the adolescent, if they perceive treatment to be of low relevance to the adolescent's problem or to be too demanding (Kazdin & Mazurick, 1994; Staudt, 2007a).

Engagement of adolescents is likely to be more favourable when there are no family or service barriers to treatment participation (Spirito *et al.*, 2002) as well as when parents have a positive attitude towards treatment (Rotheram-Borus *et al.*, 1996; Taylor & Stansfeld, 1984). Parental perception of individual psychological treatment as being helpful is a significant predictor of decreased drop-out from individual therapy. In contrast, adolescent ratings of treatment helpfulness seem less predictive of treatment adherence (Burns *et al.*, 2008).

Finally parental perception of practical obstacles (transportation, financial burden, scheduling) influences engagement (Kazdin & Mazurick, 1994; Staudt, 2007a). Those families who report several practical barriers show lower attendance and low engagement (Kazdin *et al.*, 1997; Kazdin & Wassell, 1999). In addition high severity of parental psychopathology (King *et al.*, 1997) predicts poor engagement.

Therapy-related factors

Offering young people an evidence-based psychological treatment does not in itself lead to better engagement (Ougrin & Latif, 2011).

The fact that psychological treatment takes place in a social environment with which adolescents are typically unfamiliar and in which they may feel incompetent can result in therapy engagement difficulties (Oetzel & Scherer, 2003).

To lower these barriers treatment setting, treatment scheduling and the initial therapeutic experience all seem of importance. A young persons' experience in emergency departments has been highlighted as an important predictor of further engagement. A positive experience in the emergency department appears to be linked with better engagement whilst time delays between the initial and the follow-up appointment (Clarke, 1988) and delayed initial evaluation (Wilder *et al.*, 1977) have been shown to influence negatively further engagement with treatment.

Furthermore, adolescents who have been inpatients appear to be more likely to engage with community care when their follow-up appointment is scheduled before discharge from their inpatient units. Compliance with post-discharge follow-up care depends to some degree upon the adolescents' psychopathology but may be improved by optimal hospital care and post-discharge planning (Granboulan *et al.*, 2001).

Therapist-related factors

Therapists' behaviour, attitude and knowledge are important in predicting therapeutic alliance and engagement.

There is evidence that therapists' behaviour which invites greater client participation in the first session results in better engagement. In a study of Jungbluth *et al.* a combination of (a) attending to teen's experience, (b) exploring teen's motivation and (c) less structuring in session 1 predicted greater client involvement in session 2 (Jungbluth & Shirk, 2009). It was assumed that therapists who elicit more information about the client's experience and motivations and who limit the introduction of new concepts in the first session are setting the stage for greater verbal disclosure as well as better involvement in later sessions. Less structure to the initial therapy session was clearly linked with better engagement in early and mid-treatment therapy tasks. Conversely practitioners who take a neutral or cold attitude to adolescents (Rotheram-Borus *et al.*, 1996), who are perceived as lacking training or competence (Kazdin & Mazurick, 1994; Staudt, 2007a) as well as those who lack genuineness (Staudt, 2007b) appear to achieve poorer engagement. The bottom line is that a simple warm, welcoming smile delivered by a therapist who appears confident and genuine can thus do much to optimise the likelihood of engagement in the very first minute of a consultation.

Further therapist-related factors that have been shown to improve engagement include (Oetzel & Scherer, 2003):

- A therapist's willingness to relate to the young person in a straightforward, collaborative, contractual manner, explaining and negotiating the goals of treatment and respecting the adolescent's perspective.
- Avoiding intense emotional issues in the first session(s) until a therapeutic alliance has been formed.
- Having the cooperation of the parents, either as active participants or in supporting roles.
- Clarifying right in the beginning the confidential nature of the consultation as well as the limits to confidentiality.
- If families are involved: therapist's flexibility and the capacity to meet the needs and goals of multiple family members, particularly parents.
- Using common understandable language.

Interpersonal processes and CBT

The role of interpersonal processes in CBT in general has been disputed. Hogue *et al.* (2006) examined the impact of the establishment of an early therapeutic alliance in 100 adolescents with substance abuse either receiving CBT or family therapy. There were no alliance effects in CBT while in family therapy stronger parent alliance predicted declines in drug use and externalising behaviour. The alliance was thought to be a predictor of outcome in youth treatments that emphasise 'common factors' such as therapist support, attention and empathy rather than treatments using specific techniques (Shirk *et al.*, 2008).

In contrast, recent studies have found a trend for alliance-outcome associations to be stronger in behavioural than non-behavioural therapies (Shirk *et al.*, 2011).

The importance of therapeutic alliance in CBT has also been confirmed by other studies (Shirk & Karver, 2006). Karver *et al.* (2006) concluded that early alliance is predictive of

subsequent collaboration in problem-solving tasks among suicidal adolescents in CBT, and therefore crucial for treatment success in CBT.

This goes hand-in-hand with results from the adult literature where alliance has been shown to be consistently related to outcomes across treatment types (Martin *et al.*, 2000).

In conclusion therapists should be mindful of the predictors of good and poor engagement, facilitating engagement by assuming genuine and collaborative stance, optimising treatment scheduling, harnessing parental support and addressing practical barriers to engagement.

Evidence-based interventions to improve engagement

Relatively few studies have been conducted with engagement as the primary endpoint although several trials analyse engagement as a secondary outcome.

Therapeutic assessment

There has been increasing evidence that using a short therapeutic intervention as an add-on to a usual initial assessment is linked with better treatment outcomes (Poston & Hanson, 2010) in a range of psychiatric presentations. Studies have investigated interventions such as skills development, family therapy and staff training, aiming to improve engagement in adolescents with self-harm (Rotheram-Borus *et al.*, 2000; Spirito *et al.*, 2002; Zimmerman *et al.*, 1995), showing modest results overall. In therapeutic assessment (TA) the standard psychosocial history is followed by a 30-minute therapeutic session conducted by the therapist. The recent randomised study of therapeutic assessment (Ougrin *et al.*, 2011) replicated the results of a pilot (Ougrin *et al.*, 2008) by significantly improving treatment engagement in adolescents receiving therapeutic assessment versus assessment as usual. In these two studies initial assessment is viewed as a valuable setting for engaging the adolescent. A (semi-)structured interview gathering the patient's and family's history offers a 'neutral' atmosphere which may allow first steps toward engagement. The therapeutic intervention then offered follows a standard procedure, promoting engagement by helping the young person understand their difficulties, instil hope and set targets, explore and enhance motivation and look into possible alternatives to the dysfunctional behaviour, whatever they may be.

The major components of therapeutic assessment are as follows:

1. Standard psychosocial history and risk assessment (approximately 1 hour).
2. A 10-minute break to review the information gathered and to prepare for the rest of the session, followed by a 30-minute intervention covering the next four steps.
3. Joint construction of a diagram aiming to capture the vicious cycles that maintain the symptom(s).
4. Identifying a target problem.
5. Considering and enhancing motivation for change.
6. Exploring potential 'exits' (i.e. ways of breaking the vicious cycles identified).
7. Describing the diagram and the exits in an 'understanding letter'.

In a large recently completed trial the impact of Family Intervention for Suicide Prevention (FISP; a brief therapeutic intervention for suicidal youth at the point of initial assessment) has been evaluated (Asarnow *et al.*, 2011), with results highlighting the importance of the initial assessment in engaging youths.

In summary there is growing evidence that brief psychotherapeutic interventions at the point of initial assessment improve engagement with follow-up treatment.

Example: Malcolm's therapeutic assessment

Malcolm is a 16-year-old young man who presented following a GP referral with an escalation of cutting behaviour (daily) and a very deep recent cut that he said was intended to sever his veins.

The precipitating factors for cutting were usually arguments with his mother. She would frequently pass critical comments about Malcolm not doing anything with his life and also accuse him of having a bad mouth and interfering with things that were none of his business. Malcolm, on the other hand, acknowledged he was sometimes rude to his mother, but also thought she was not capable of looking after the family affairs adequately. The latest cut was precipitated by his girlfriend dumping him, having accused him of being a 'cutting freak and useless in bed'. This made him feel worthless and a failure.

Malcolm's parents separated when he was one. There is no contact with his father who suffers from a psychotic illness. Malcolm could not remember the last time when the relationship with his mother was good and said she has always been difficult and would never leave him alone.

Malcolm admitted to significant anxiety symptoms that interfered with his sleep and accepted that self-harm was used as a way of helping him control the anger and anxiety stirred up by arguments.

He has been refusing to go to college of late as he feared being ridiculed by other students over his self-harm. He also had no doubts that his ex-girlfriend was indiscreet about their sexual life, although he had no evidence to support this. Malcolm had been spending an increasing amount of time in his bedroom, playing computer games. He used to play football, go out with his friends and used to be considered a 'good laugh' by his peers.

Figure 5.1 shows clearly the possible targets for future therapeutic work. Each link in the diagram could be seen as a target for therapeutic intervention. Malcolm chose 'I avoid going to college and seeing my friends' as a link that he could target in order to break the vicious cycle depicted in Figure 5.1. This formed the basis of his therapeutic work following the initial assessment.

Motivational interviewing

Motivational interviewing (MI) was originally used for patients with substance misuse problems; however there is more and more evidence that motivational principles can be applied in other, different areas (Chanut *et al.*, 2005).

Therapists may well be faced with a motivation problem if a young person refuses to engage with assessment. People with poor motivation may be hopeless, and angry – they may refuse to engage with you and may want to leave the assessment before speaking to you. They may have been rude to other professionals, particularly if they felt patronised or criticised.

Before setting out to assess and enhance motivation using MI, it is important to bear in mind that:

- Motivation is a spectrum and it is very rare to have 0% or 100% level of motivation to do anything.

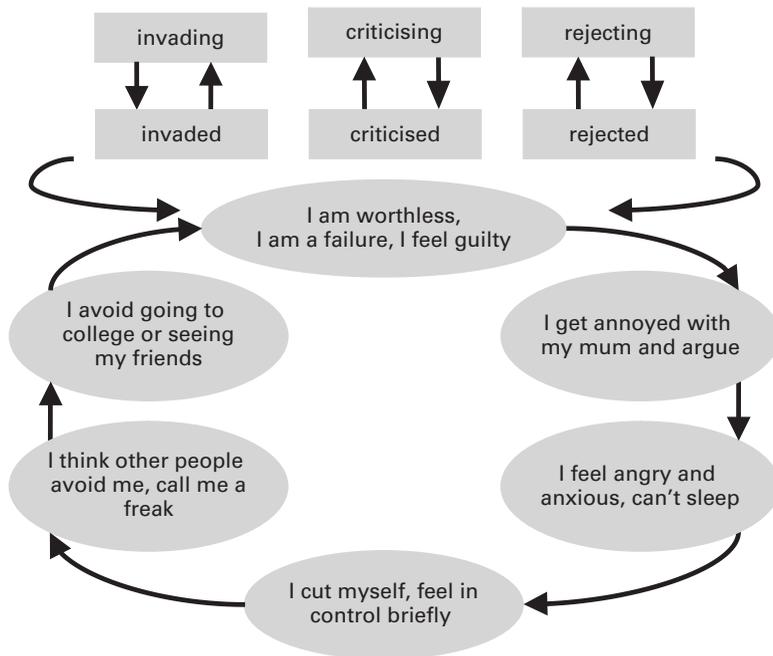


Figure 5.1 The possible targets for future therapeutic work.

- Motivation varies over time. An acute crisis provides an opportunity to review the level of motivation and may be associated with enhanced or decreased motivation to change.
- Motivation can be specific – young people might have very different motivation for different targets. For example, motivation to stop self-harm might be great, whereas motivation to stop smoking cannabis might be low or vice versa.
- Motivation is interpersonal. The assumption must be that the young person has resources and capacity to change. Using a collaborative approach, avoiding confrontation and respecting the young person's autonomy is likely to bring these resources to the fore.

The concept of a cycle of change (Norcross *et al.*, 2011) provides a way of thinking about motivation in patients. Usually it is obvious where the young person is in this cycle – in practice when assessing young people the therapists are frequently faced with ambivalence. No matter where the young person is on the cycle of change (Figure 5.2), or what the target problem is, the following MI principles apply:

1. Expressing empathy – accepting the young person's point of view without approval or disapproval. Reflection is the best way to show empathy.
2. Developing discrepancy – highlighting the difference between the way things are now and the way the young person prefers them to be. Eliciting change talk (see below) and weighing pros and cons are tools used to develop discrepancy.
3. Supporting self efficacy – belief that the young person has the necessary resources to effect change. Tools of supporting self-efficacy include using the change rulers (see below) and exploring the young person's successes in the past.

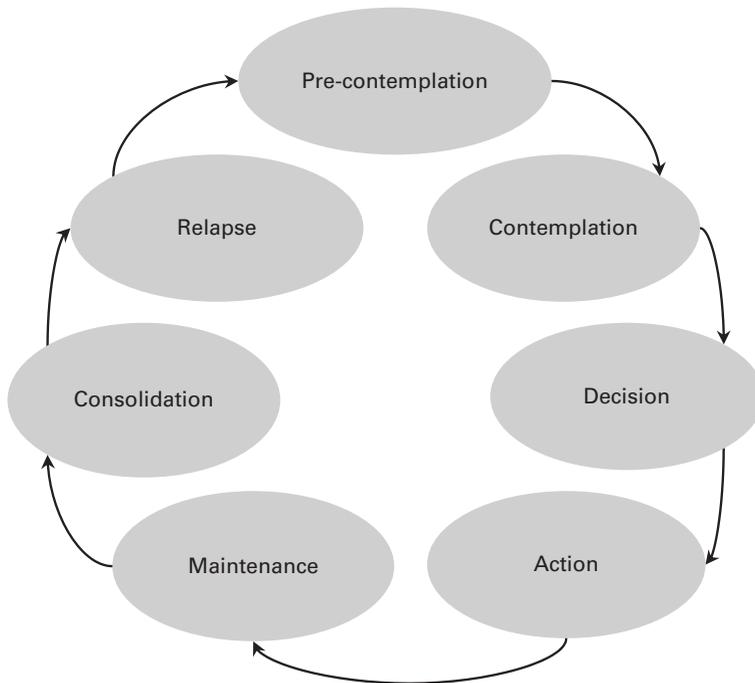


Figure 5.2 Illustration of a cycle of change (Norcross *et al.*, 2011).

4. Rolling with resistance – if you sense resistance, e.g. ‘*I dunno*’ replies, anger or yawning – move away from the topic and change strategy. Avoid arguments. If there is resistance it may be a signal to change tactics. The young person might need a break or it may be useful to engage significant others to help the young person feel more relaxed.

Before you consider these options, the following immediate responses have been advocated:

- Empathic reflection – comment on the feeling/perception/idea behind the statement (e.g. ‘You seem angry with the way things have gone for you today’; ‘It must be very frustrating to wait for four hours in A&E’; ‘It seems you think no one is able to understand you’).
- Amplified reflection – reflect back the young person’s statement with exaggeration (e.g. Young Person (YP): ‘Most of my friends smoke cannabis.’ Therapist (T): ‘So if you stopped smoking you would have no friends left.’ This usually helps the young person realise the evidence to the contrary of your suggestion.
- Double-sided reflection – reflect back both the negatives and the positives T: ‘You feel frustrated with the long wait *and* you decided to stay until I arrived.’
- Reframing – YP: ‘My mother is constantly nagging me to stop cutting.’ T: ‘It seems your mother is very concerned about your cutting.’
- Make an open question/statement – YP: refuses to speak. T: ‘I am wondering what you might be experiencing right now?’
- Move to a different topic – T: ‘I can see that talking about depression is difficult for you right now *and* I would really like to understand you better. Perhaps you could tell me

what you like doing after school?’ Note the use of *and* rather than *but*. This ensures the young person’s feelings are not invalidated.

The OARS acronym can provide a communication framework for the non-directive components of MI. OARS stands for:

- Open-ended questions.
- Affirming strengths and change efforts.
- Reflective statements.
- Summaries.

Open-ended questions

Open-ended questions require more than yes/no answers:

How will you know this assessment was useful?

Tell me a little about yourself?

In what way does the problem affect your life?

‘Open-ended questions’ is a general umbrella term and asking such questions is only part of the ‘O’ in OARS. In a broader sense it is also about an open approach to the young person. Remember game theory, originally devised in economics by von Neumann and Morgenstern – people are more likely to be open and fair with you if they think you are open and fair with them. When approaching a young person, be polite and open about yourself – tell them your occupation and the purpose of the assessment. Tell them about your work and yourself (as much as feels comfortable and maintains professional boundaries) – this is likely to improve engagement.

Affirmation

This is about expressing confidence in the young person’s ability to achieve the targets:

You seem to have done a lot of thinking about the cannabis use already.

It sounds like you were reluctant to see me and you decided to stay (note the use of ‘and’ instead of ‘but’).

Affirmation can be difficult for some therapists, but there is always something to highlight as a positive in a young person. Acknowledge that the young person has not left and is still talking to you. Do not lie, however – young people are very sensitive to false statements without evidence. Note when the young person is being honest, open, considerate etc.

Reflection

Reflective statements clarify and capture the young person’s meaning.

So, you used to think that cutting was a good way of dealing with your anger, and now you feel it interferes with your relationships.

You could simply repeat what the young person tells you, but a better way to reflect is to rephrase or paraphrase:

Young Person: My dad always tells me to get lost when I need his help. It always makes me feel angry and I smoke cannabis, but now that makes me feel even worse.

Therapist: It sounds like you find it difficult to cope with rejection and that drugs don’t help you deal with anger any more.

Reflect the young person's feelings – do they seem angry, upset, exasperated. Express empathy – you need to show that the young person's feelings are understandable and that you have an interest in the young person's values, beliefs and feelings. You need to understand what the young person will be losing by making a change.

Reflect the young person's meaning – comment on how important you feel their views are and what beliefs they might reflect.

Summarising the two aspects of ambivalence – the main points of what the young person finds good and not so good about the behaviour they might like to change – is frequently used in motivational work.

Summaries

Summaries highlight the main points the young person has made.

Let me see if I understood you correctly. The main reasons why you are considering starting CBT is because you feel you could do with support after what you've been through, your friend felt better after her CBT sessions and you need to have someone who can listen to you.

When doing motivation work at least some summaries are required – to check if you have understood and to highlight major points discussed. A therapeutic letter is of course one way to summarise the main aspects of the session.

The following five techniques constitute the directive elements of motivational work: exploring ambivalence, change rulers, evocative questions, strengthening commitment and planning change. The basic assumption is that the more the young person becomes aware of the reasons for change, the more they appreciate their own strength, resources and ability, and so the more likely change becomes. OARS (the non-directive elements) are used alongside the directive techniques.

Exploring ambivalence

The motivational work in MI usually starts with exploring ambivalence:

Key question

What is good about the target behaviour (e.g. smoking cannabis)?

What is not so good about it?

You can further develop this in the following ways:

1. Explore the impact of the target behaviour.
 - How does the (target behaviour) affect you?
 - How does the (target behaviour) affect other people?
 - How does the (target behaviour) affect your relationships?
 - What are the immediate consequences of the (target behaviour)?
 - What are the long-term consequences of the (target behaviour)?
2. Introducing the future perspective.
 - If you had stopped the (target behaviour) how life would be different now.
 - If you stopped the (target behaviour) how life would be different in the future.
 - If you don't make any changes, what do you think will happen?
 - Where would you like to be in a year from now? What do you hope would be different? How does (target behaviour) fit into this?

3. Introducing other people’s perspective.
 - What do other people think about the (target behaviour)?
 - If your (important other) were here what would they say?
 - Who would be least surprised if you stopped the (target behaviour)?
 - What would they notice?

Summarise the ambivalence. Consider using a decision balance sheet:

Positive things about my smoking cannabis for me <i>now</i>	Negative things about my smoking cannabis for me <i>now</i>
Positive things about my smoking cannabis in relation to others <i>now</i>	Negative things about my smoking cannabis in relation to others <i>now</i>
Positive things about my smoking cannabis <i>in the future</i>	Negative things about my smoking cannabis <i>in the future</i>

Creating scales (change rulers)

Key question

On a scale of 0–10, with 0 having no motivation to change and 10 being ready to start changing things, where are you right now?

Having obtained a summary score for the overall motivation you can develop this part by exploring different elements of motivation.

Importance of change

How important is it that you change your target behaviour?
 Not at all important Very important
 0 1 2 3 4 5 6 7 8 9 10

Confidence to change

How confident are you that you can change your target behaviour?
 Not at all confident Very confident
 0 1 2 3 4 5 6 7 8 9 10

Readiness to change

How ready are you to change your target behaviour?
 Not at all ready Very ready
 0 1 2 3 4 5 6 7 8 9 10

Enhancing motivation – eliciting change talk (evocative questions)

Key question

How come your score is not zero – tell me more about it. Why else?
 What would need to happen for you to move up one point?

You can develop this further by

1. Introducing other people’s perspective.
 - Who would be the most useful person to help you move up one point?
 - Who else thinks that you should move up the scale? What are their arguments?

2. Introducing the future perspective.
 - If you decided to move up the scale how would you do it?
 - Why would you want to increase your motivation?
 - If you don't make any changes, what do you think will happen?
 - Where would you like your motivation to be in the future?
3. Introducing the young person's skills and strengths.
 - What strengths could you draw on to move up the scale?
 - In what ways would it be good for you to move up the scale?

Other evocative questions:

- Can you tell me about the time before (the target problem behaviour)? What was it like?
- What may happen if things continue as they are?
- If you stop (the target problem behaviour) how would your life be different?
- What would your life be like in 1 year's time?
- What is the worst that can happen if you don't change?
- What is the best that can happen if you do change?
- How does (the target problem behaviour) fit with what you want to do in the future (e.g. going to college, having a boyfriend, travelling abroad)?

Finally, the young person may be ready to plan change. Before you move to the phase of planning change you need to summarise the information elicited: the pros and cons of change, where the young person is on the rulers of change, the impact of the problem and reasons for change. It is likely that the young person is high on the measures of readiness, ability and confidence to change before this stage is reached. The following framework could be helpful to follow from this point.

Key question

It sounds like you are ready to change things – what do you think would be the best way to do it?

The following worksheet may help the young person structure their thoughts.

Change plan worksheet

-
- The changes I want to make (or continue making) are:
 - The most important reasons why I want to make these changes are:
 - The steps I plan to take in changing are:
 - The ways other people can help me, and how I can ask for their support:
 - I will know my plan is working if:
 - Some things that could interfere with my plan are:
 - What I will do if the plan isn't working:
-

A useful algorithm in motivational work is as follows:

1. Identify target.
2. Explore/enhance ambivalence.
3. Elicit change talk.

4. Explore components of motivation to change.
5. Prepare a plan.

In summary, motivational interviewing provides a coherent set of procedural and directive interventions that is linked with increased engagement in a range of psychiatric conditions. Assessing and enhancing young people's motivation to change is a complex phenomenon that is problem-specific and may vary considerably over time. The young person's position on the cycle of change will determine the most profitable intervention.

Other interventions

Psychoeducation

Psychoeducation refers to providing information about the causes, symptoms, risks, clinical course and treatment options for a particular disorder. Increasing the knowledge adolescents and parents have about disease and therapy may help reduce misconceptions about the illness and/or treatment thereby fostering engagement in the treatment process. Providing general information about the disorder, including its prevalence, is often comforting and evokes trust, as it suggests that there may be other people struggling with the illness close to the adolescent. Such information can be helpful in reducing shame, stigma and anxiety. Using thorough feedback from assessments, and providing education about the nature of therapy and its documented efficacy (Chambless & Ollendick, 2001) may be linked with better engagement.

Addressing treatment barriers

There is some evidence that challenging interfering cognitions and beliefs about the treatment, addressing problems in the relationship to the practitioner and addressing practical barriers to treatment may result in better engagement (Staudt, 2007a).

Developing a joint CBT formulation

Developing a joint CBT formulation (see Chapter 6) is crucial and may form the basis of an effective therapeutic alliance. Kingery *et al.* (2006) examined the role of joint collaborative formulation in anxious adolescents in CBT. They found that a collaborative approach in therapy, encouraging adolescents to integrate aspects of their personal life into therapy (e.g. friends, personal interests), giving a concrete meaning to skill acquisition and including the adolescent's strengths into the formulation were all linked with better engagement as was using positive reinforcement for attendance and adherence.

In summary, there is moderately good evidence that the use of therapeutic assessment and motivational interviewing improves engagement. Psychoeducation, addressing treatment barriers and developing a collaborative formulation may also be related to improved engagement.

Summary

Engagement can be seen as both a description of a patient's adherence and attendance to treatment as well as the process aimed at achieving good adherence and attendance through establishing a therapeutic alliance.

Treatment engagement is one of the factors important for achieving treatment goals. Poor engagement is linked with poor treatment outcomes and also with psychosocial adversity in general.

Therapists should be mindful of the adolescent-related, family-related, therapy-related and therapist-related predictors of good and poor engagement. In order to facilitate engagement therapists should assume a genuine and collaborative stance, optimise treatment scheduling, harness parental support and address practical barriers to engagement. There is a sound evidence base for using initial assessment in a therapeutic way and employing MI interventions improves engagement. The use of psychoeducation, addressing treatment barriers and developing a collaborative formulation may also improve engagement.

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Formulation: a systemic approach in cognitive behaviour therapy

Nicola Dummett

Introduction

Cognitive behaviour therapy (CBT) is fundamentally a collaborative therapy, in which the client (or clients), and therapist work together to build an understanding, ‘the formulation’, of the way problems have arisen and are being maintained (Persons, 1989). The validity of this formulation is then empirically tested (Salkovskis, 2002) in therapy by the client with the support of the therapist and used to form a basis from which to devise interventions and to predict difficulties and timescales for potential change. The formulation is usually written, but may be verbal or largely pictorial or symbolic, whichever has most salience for the client. It explicitly identifies the links between the ‘four systems of response’ (cognitive, emotional, behavioural and physiological) that clients experience in the immediate problem situation (Rachman, 1978) and explains how these responses are linked to underlying beliefs about the self, others and the world that clients hold as a result of prior (particularly early) life experience (Beck, 1979). The formulation is gradually built up using Socratic dialogue (probing thinking, challenging assumptions, eliciting evidence) to promote guided discovery (Padesky, 1993) with the therapist acting as an ‘accessory memory retrieval system’ enabling clients to make their own discoveries. This promotes a collaborative therapeutic relationship with appropriate balancing of responsibility for change between the therapist and client, as appropriate for client age, developmental level, current stressors and resources and present emotional state.

In this way, clients are helped to make their own discoveries not only of ‘vicious cycles’ that maintain and magnify problems and of the underlying beliefs that lead to unhelpful assumptions and predictions at times of difficulty but also of strengths and resources in making change. Motivation to carry out interventions actively is at all stages enhanced through clients having their own rationale, from the formulation, for carrying them out. Cognitive behaviour therapy formulation is therefore a dynamic, collaborative process with the formulation being further tested and refined throughout therapy in the light of new client discoveries within the context of the therapeutic relationship (Vetere, 2006).

Rather than CBT being a structured, ‘cook book’ approach or a collection of ‘bolt-on’ techniques, as it is often seen, it is, in fact, much more an empirical, collaborative process. Just like other psychotherapies, CBT works through: use of the therapeutic relationship in the room; particularly detailed focus on affective responses; making the unconscious and interpersonal and therapeutic relationship processes explicit; and depends on establishing a trusting relationship and on a number of therapist factors such as level of CBT training

(Davidson & Scott, 2009) and empathy (Gilbert, 2002). Misperceptions about CBT are understandable given that much research has involved manualised interventions with homogeneous clinical populations, whereas in the UK most clinical Child and Adolescent Mental Health Services (CAMHS) encounter heterogeneous populations and employ staff skilled in multi-modal working who routinely tailor interventions through individual or family systemic case formulation, whichever psychotherapeutic modality is used. Drinkwater (2005) has highlighted the need for empirical research comparing formulation-based with manualised CBT.

In using CBT (or any therapeutic modality) with children, young people and families, it is essential to incorporate developmental, attachment and wider family, contextual and cultural factors into formulation (British Association for Behavioural and Cognitive Psychotherapies, 2002, 2011), to meet the unique needs of each child at their particular stage of development, within their particular family and wider context and within their particular current set of circumstances at the time of presentation. Importantly, in working with children and families, account must also be taken of pragmatic factors such as the hierarchy of children's needs (primacy of physical and emotional security and nurturance, for example) that need to be satisfied before attempting 'higher order' therapeutic interventions. Tarrier and Calam (2002) have similarly highlighted the need to incorporate systems theory and the epidemiological and social context into CBT formulation with clients of any age. Spratt and Carey (2009) have highlighted the need to include control theory and motivational factors in formulation and many workers (for example Kuyken *et al.*, 2008) have argued for rounded formulation that incorporates clients' strengths and highlights positive change. However, pragmatic cognitive-behavioural formulation structures that include all the necessary elements and yet are sufficiently concise to form a basis for communication and therapy with children, young people and families have been hard to derive. This chapter presents a structure for formulation that can encompass all the factors potentially necessary but is built up step by step between client and therapist only to the degree of complexity necessary for therapeutic change.

By 'children and young people', I generally mean individuals up to the age of 18. For conciseness in this chapter, I shall refer to them as 'children', adopting the terminology of the UN Convention on the Rights of the Child. Client or clients (for example a child or young person alone or together with key family or wider system members) are referred to for conciseness in this chapter as 'the client'.

The 'traditional' formulation structure for individually focused CBT

Figure 6.1 shows the template that is traditionally used for individually focused client CBT formulation. It highlights how in any situation of distress, a client will have responses in each of the cognitive, behavioural, affective and physiological systems. Each system is influenced by the other systems, as illustrated in the vignette below and so 'vicious cycles' may occur at times of distress that disproportionately magnify some responses. The client is usually relatively over-focused on one or two systems and less aware of others, partly dependent on the attributions or affect induced by each response. All of the responses (and deeper levels of cognition) are also, as explored in later sections of this chapter, in reciprocal relationship with the environment (family and wider context).

In CBT, the therapist works with the client through 'recent events analysis' (described in Dummett, 2010) using Socratic questioning to help enable clients to revisit problem situations in detail and with a wider awareness than they have previously shown. Thus

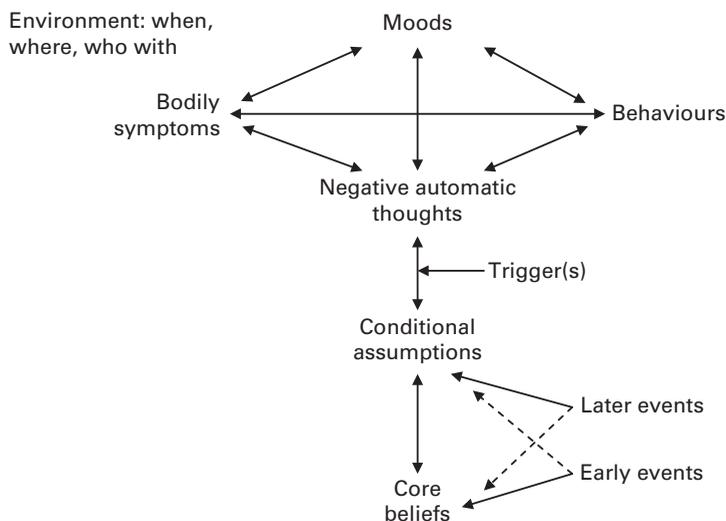


Figure 6.1 Template for individual cognitive-behavioural formulation.

clients can begin to understand how responses in one or more systems may have magnified elements in others to create a disproportionate magnification of symptoms. As therapy progresses, they are also encouraged to note for themselves themes that emerge as habitual cognitive distortions in problem situations and how these may be derived from underlying less consciously held ‘conditional assumptions’ (Figure 6.1) or ‘rules for living’ (for example, ‘I must always please everyone I meet, otherwise . . .’). These conditional assumptions serve a defensive purpose in relation to underlying distorted (over-negative), unconsciously held ‘core beliefs’ about the world, the self and others that have been developed in response to early life experiences and are often subsequently maintained through later life experiences (Beck, 1979). Client and therapist decide together how best to represent the formulation (usually drawn out on paper) with the client encouraged to be as active as possible in the process. They are, for example, encouraged to do the drawing or writing in session themselves and using their own language. Ideally, clients should ‘own’ this material, taking it home with them unless they wish not to, with copies kept for the notes. Practicalities (for example of storing it privately and of transporting it back to the next session) are also discussed collaboratively.

I will use a vignette to illustrate this approach: Will, 14 years, has been referred to a child and adolescent mental health service (CAMHS) with a six-month history of complete school non-attendance, despite being academically very able. He has a history of worsening generalised anxiety, low mood (though not clinically depressed on CAMHS assessment), and non-organic somatic complaints. He had said he felt unable to return to school after a few weeks off following a tonsillectomy and then, after he received a text message from a school friend asking what was ‘wrong’ with him, he had stated that he felt ‘unable to face them’ (school peers) again. Home tuition had been put in place despite the fact that no clear attempt at reintroduction to school appeared to have been tried and the family seemed to have rather passively accepted that Will could ‘never again’ go to school, reporting ‘he even gets upset walking past other people’s schools’. His mother works in retail and his father is unemployed and describes himself as ‘home maker and transport service’ for the mother, Will and his sister, Karen (16 years, who

also had a temporary episode of school non-attendance some years ago when the family moved to the area). All the family members play active roles in their church, with Will still socialising and able to speak with peers and to speak to the wider group in church meetings 'because I know people will have to be nice to me there'. In the initial CAMHS interview, Will and Karen laugh incongruously when contentious issues are broached, even when clearly tearful, and defer to their parents to speak.

When asked in an individual session to think about school, Will describes feeling sick; getting a headache; that feelings of 'being scared' bottle up and come out in anger or tears, and thoughts of '... being unable to say no to peers because they will think I'm weird if I say no ... I feel they can walk all over me'; thoughts that he is 'different' from and 'not as strong as' other people and that 'it' will all happen again if he goes to another school, although he would like to get a better education by being at school. He also reports that he doesn't want to 'be a disappointment' to his parents and that he, his mother and Karen 'cannot say no to Dad' and that he is scared his father may 'cut me off one day'. Will describes his father as becoming angry and shouting at any day-to-day differences of opinion. Mother and father both report they are fearful even to bring up the subject of school with Will, with father reporting a fear of 'pushing Will too hard when he is clearly physically very unwell' and mother (in a later session) reporting a fear that Will may self-harm if upset (it is noteworthy that Will has never articulated any such thoughts in what have been fairly open discussions in individual sessions). Somehow, family letters to reapply for mainstream schooling never arrive at the local Education Department.

Will was asked to recall one of his worst experiences at school. This was when he felt ridiculed by peers waiting outside the physics laboratory for their teacher to arrive and was explored through recent events analysis, to yield the information recorded in [Figure 6.2](#): Will was asked to go through the event in detail in the order in which it happened, starting with him waiting alone outside the laboratory and ending with how he felt after he had left the situation. He was particularly asked to rate how strongly he had felt emotions and bodily sensations on a scale of 0% (not there) to 100% (the worst I've ever experienced). He was also asked to rate how strongly he had believed (from 0%, don't believe, to 100%, totally believed) thoughts he had had in the situation.

As can be seen from the formulation, overhearing a chance comment activated Will's fears of rejection, based on his sense of being unacceptably different. He employed a range of safety behaviours (gaze avoidance, withdrawal, over-focus on bodily symptoms, hyperventilation, repeated swallowing and ultimately escape) that worsened his cognitive responses, prevented opportunity for disconfirmation of distorted attributions, greatly magnified his physiological responses (distorted perception of normal sensations with a sense of choking through physical consequences of hyperventilation and throat muscle constriction) and in turn produced a rapidly worsening affective response. His responses of course also meant he never clarified (or challenged) what might or might not have been being said or thought by others in the first place.

A number of diagnosis-specific CBT formulation structures have been derived that have led to effective specific treatments, for example: panic disorder (Clark, 1986), social phobia (Clark & Wells, 1995) and obsessive-compulsive disorder (Salkovskis, 1999). The key process factor here is that formulation templates are not simply 'presented' to clients. Rather, the case formulation is collaboratively built up bit-by-bit using the structure of the template (through four systems recent events analysis and techniques for elucidating underlying cognitions) forming links the client is helped to discover between elements of their own experience. This

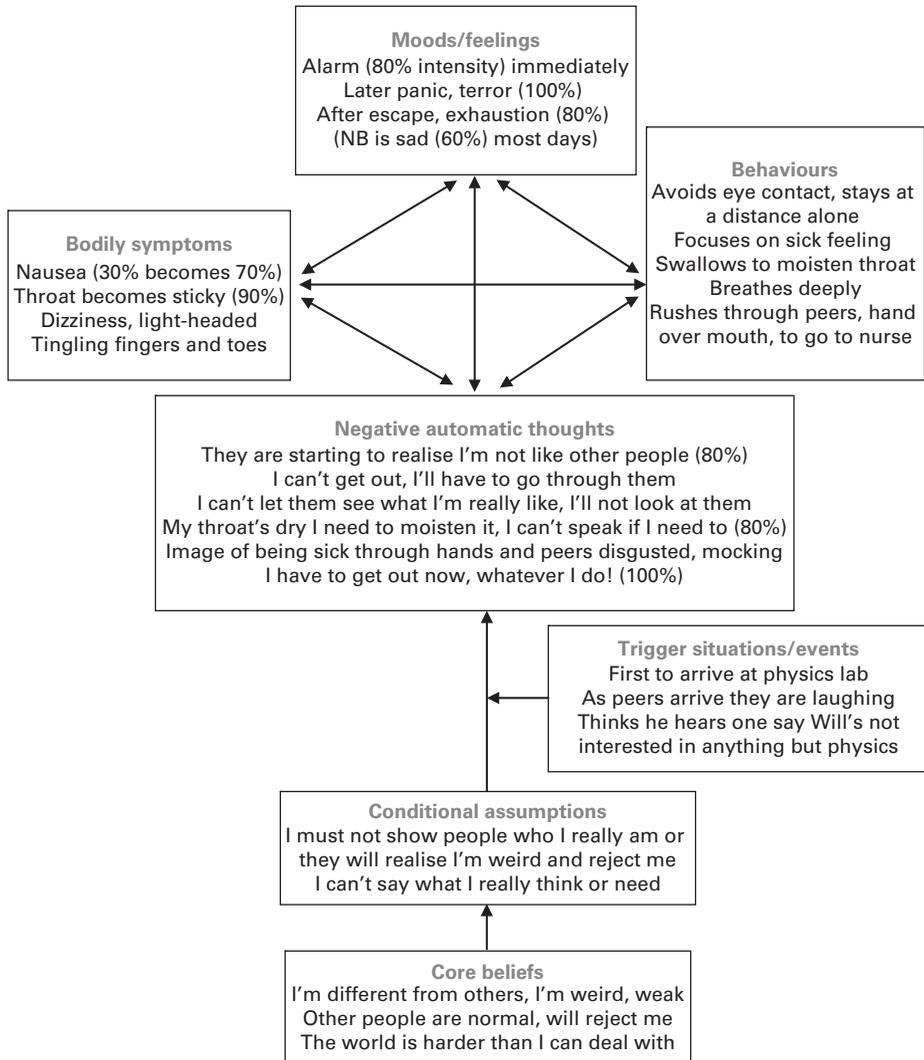


Figure 6.2 Individual formulation for Will from recent events analysis of an episode.

continues until client and therapist agree they have sufficient explanation for the present problems.

Structures suitable for cognitive behaviour therapy formulation with children, families and the wider system

The key requirement of any case formulation is that it should, as succinctly as possible, capture the key maintaining, exacerbating and potentially restorative processes. Therapists using CBT have tried many simplifications to arrive at more concise formulations, but we have found that incorporating all of the four systems into formulation is necessary for effective practice (see also Williams, 2001; Williams & Whitfield, 2001).

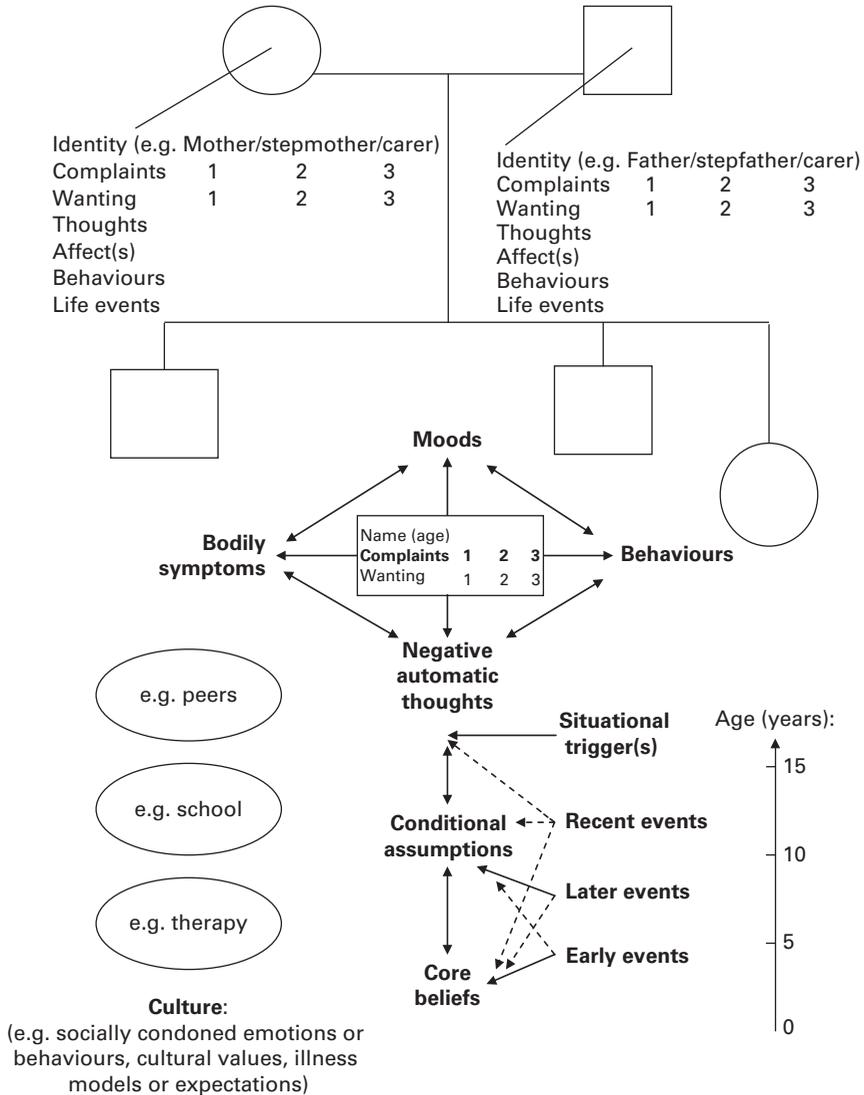


Figure 6.3 Systemic cognitive behaviour therapy formulation template for direct clinical use.

Figure 6.3 shows a four systems structure that can be used in clinical practice as a basis for collaborative exploration of a systemic CBT formulation with children, young people, and when needed, families and wider systems (Dummett, 2004, 2006, 2010). In this systemic case formulation, the child or young person's individual formulation is central. Surrounding this is a genogram which represents the key family relationships around the child. In addition, all other relationships involved in support of the young person or possibly maintaining problem(s) (for example, peers and other helping agencies, including the therapist(s)) are represented. Key maintaining components of response (i.e. key *immediate* thoughts, emotions and behaviours) are noted for surrounding key individuals, together with any major life events that may have shaped their underlying belief structures.

The child and each key individual are asked to give a prioritised problem list (with their perception of severity for each item) and to say which key changes or aims they wish for. These are also represented in the formulation and help highlight explicit differences in problem perception and desires and motivation for change, thereby helping family members to look at wider motivational issues and conflicts. Cultural influences (e.g. culturally condoned emotions, or behaviours, or cultural values, illness models or expectations) are listed in the formulation either in the surrounding environment or as cognitions of key individuals (if articulated as an account of their own thinking). A timeline is incorporated near the life events section to add a chronological perspective of major life events from early on (0–5 years), later on (over 5 years), recently (since onset of symptoms or distress) and as present, day-to-day situational triggers of acute difficulties. On occasion, timelines relating to the family story prior to the birth of the child may need to be explored in understanding, for example, parents' reactions in acute problem situations. Importantly, strengths and resources are noted in the formulation to highlight options for change and also any positive changes made (for example in behaviour) are added to the dynamic formulation as they occur to reflect the new reality (and trace the consequences through the formulation).

The four systems formulation structure is never presented in all its complexity to the child or family but provides a template for a systemic formulation that can be built up collaboratively with the child and family, through recent events analysis, to the level of complexity which is clinically indicated as assessment and therapy progress. At all stages, therefore, the shared formulation is only elaborated to a degree of complexity that reflects the shared understanding in the room and not beyond what has salience for the client (according to their developmental level and emotional state). Different, but complementary, aspects of the formulation may be explored separately with a younger child, for example, and with their parents, but attempts will be made to integrate both perspectives with child and parents together as soon as appropriate. The formulation can be developed in a greatly simplified form, starting with a blank piece of paper or simple self-statement with the young person and/or family slowly building it up from reflections on their own experience. For example, in individual sessions with a child who has come to understand 'I shout because I'm afraid', further exploration might be restricted to adding 'Dad gets cross if I shout'. More insightful wider work around this basic formulation can then be explored with the wider family or older child or young person to yield more complex systemic processes of cause and effect and inform an evolving systemic formulation. Key components are identified by completing detailed recent events analysis of both problematic and positive events with the child or family (as appropriate) to see which elements occur and contribute most consistently. As implied above, the principle of sufficiency is important. Detailed work needs to be focused only on those areas necessary for positive change, but all areas of the potential template need at least to have been considered in order not to miss important processes.

With Will the systemic formulation was built up largely in individual sessions with him initially, asking him to report not only on his own internal experiences but also on the reactions of those around him at times of stress. Subsequently, four systems analysis with the whole family yielded very valuable insights that contributed significantly to the formulation and gave an opportunity for reality testing of many individually held beliefs.

Incorporating development, insights from other psychotherapies and attachment processes into systemic cognitive behaviour therapy formulation

Developmental problems and biological intrinsic difficulties need to be considered non-judgementally, through a prior acknowledgement that everyone has strengths and weaknesses that they cannot help and highlighting examples from wider experience. It is also important to keep the formulation rounded and balanced (rather than pathologising) through highlighting skills and positive efforts on the part of the child and family to overcome difficulties. For example, with attention deficit disorder, the primary deficit may be a cognitive deficit in pre-planning or consequential thinking, or both, or may be impulsive behaviour or general lack of attention to social cues. By then working through the formulation with the young person and/or family, the consequences of this (poor self-esteem, peer rejection, etc.) can be identified, together with other, possibly maintaining or exacerbating factors, such as parental cognitions (over-anticipating maladaptive behaviour) or behaviours (over-control) and the extreme efforts many children make to overcome difficulties can be highlighted. Inappropriate expectations of a child by key family or wider system figures (for example, class teacher) can also be entered into the formulation and the consequences of such inaccurate beliefs both in terms of their own behaviour and the effects on the child can be made explicit. A similar procedure can be carried out for pervasive developmental disorders, specific learning difficulties, physical difficulties or simply in order to reflect the child's present developmental level and to highlight the appropriateness or otherwise of family or school's expectations. Similarly, cognitive deficits or inaccurate or rigid cognitive responses (e.g. with some learning difficulties) or motor responses (e.g. in dyspraxia) are noted in the formulation under the appropriate system of response and their effects in terms of others' perceptions, expectations and behavioural responses can then be traced through the systemic formulation.

Cognitive behaviour therapy formulation is through its empirical, dynamic nature intrinsically integrative. Through recent events analysis and wider system cognitive-behavioural formulation, young people and families can explore processes more commonly explored through other psychotherapeutic modalities by expressing phenomena experienced in cognitive-behavioural terms. Thus repression of incongruous memories or images can be incorporated into the formulation as dysphoric elements at core belief level; the projective processes of Object Relations Theory may be represented as core belief level cognitions (e.g. 'She always criticises me') or negative automatic thoughts in the acute problem situation (e.g. 'She is criticising me again'), wherever they are actually manifest for the person involved. Similarly, transference and counter-transference processes may be located in the formulation as relationship-focused cognitions and consequent affect(s) and behaviour(s).

Attachment processes can be reflected in the formulation in a number of ways. Firstly, sequences of attachment-related behaviours and affects may be observed at the four systems level, as illustrated in [Figure 6.4](#). Together with mediating cognitions, they can be expressed in 'four systems' terms, and incorporated into the systemic formulation template; Stark and colleagues (2000) have highlighted how early and later relationship events shape relationship-focused cognitions at the deeper (less conscious and more enduringly held) conditional assumption and core belief levels, which in turn give rise to

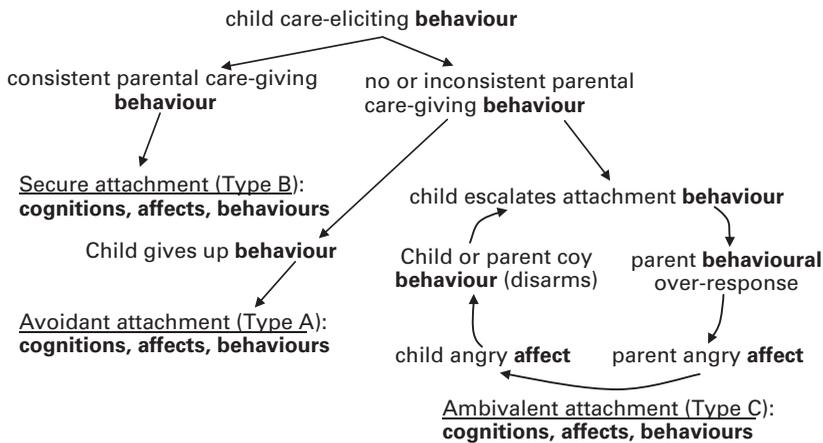


Figure 6.4 The major attachment patterns, expressed in four systems terms.

biases in relationship-focused cognitions at the automatic thought (four systems) level in acute problem situations. These concepts are compatible with the work of Fonagy *et al.* (1991), for example, on the influence of attachment on the infant's mentalising capacity (ability to self-reflect); Baucom *et al.* (1989) have helpfully categorised the distorted relational cognitions that commonly occur in family conflict into: (a) selective perceptions of events occurring in interpersonal interactions, e.g. parents who only notice when a child behaves disruptively, not when he or she displays cooperative behaviour; (b) distorted attributions about the causes of positive and negative relationship events, e.g. 'you only did that for me to control me'; (c) inaccurate expectations or predictions about events that may occur in the relationship, e.g. 'if I tell her how I really feel now, she'll shout at me'; (d) inappropriate or inaccurate assumptions or general beliefs about people and their intimate relationships, e.g. 'men do not have a need for emotional attachment'; and (e) extreme or unrealistic standards to which individuals hold relationships and their members, e.g. 'loving couples should want to spend all their time together'. Of these, a, b and c may helpfully be conceptualised as negative automatic thoughts occurring at the four systems level in the acute problem situation and entered into the systemic formulation as such, whereas d and e can be conceptualised and entered into the formulation at the conditional assumption and core belief levels.

Use of four systems systemic cognitive behavioural formulation in assessment and intervention planning

Research (as highlighted by Bodden *et al.*, 2008) is starting to identify the circumstances when systemic CBT interventions add to the effectiveness of established individual client CBT interventions for specific child and adolescent disorders. There have been some rigorous and well-defined studies (e.g. Barrett *et al.* 1996, 2001, 2005; Bögels & van Melick, 2004; Cobham, 1998; Spence *et al.* 2000) looking at the effects of specific family (e.g. parental) CBT interventions but such studies can only address very specific questions with specific client groups within a field of much heterogeneity and many further layers of complexity. Rigorous quantitative evaluation is beset by major difficulties, so even at the

most basic level, there are still many unanswered questions as to when behaviourally focused or cognitively focused CBT interventions are appropriate. Thus, to date there remains little guidance from quantitative research as to which populations, presentations and clinical situations do or do not benefit from which specific systemic CBT interventions, either alone or in addition to effective individually focused CBT interventions. Faced with this situation, clinicians need to return on a case by case basis to empirical formulation-based working, using case-based and standardised measures routinely to evaluate outcome of any interventions. It will be interesting to see whether thematic analysis and qualitative research methods using data from such pragmatic clinical working can throw greater light on this field.

Cognitive behaviour therapy assessment, in addition to elucidating predisposing, precipitating and perpetuating factors through progressively precise formulation seeks to: quantify problem magnitude and consequences for daily living; identify measurable goals for therapy; record and evaluate the significance of past life events and present stressors; consider the present family, social, education, work and cultural environment; evaluate strengths and resources; clarify motivation and likely timescale for change; complete a risk assessment; and identify specific indications and contraindications to specific interventions, ideally within the first few sessions. Detailed record is therefore made of onset, frequency, intensity, nature and duration of difficulties, response to prior attempts to alleviate problems, relevant social and medical history and drug (including recreational drugs and alcohol) history and response to trial interventions. Much weight is placed in considering clients' suitability for CBT on the reaction of the client to the model (formulation), e.g. do they see it as relevant and helpful and also on their willingness to actively engage in self-prescribed interventions based upon it. With children and young people, the willingness and capacity to change (e.g. tolerance of uncomfortable affect in exploring new meaning) both of the child and that of the system around them particularly need to be evaluated and this can take longer than the 'one or two sessions' often advocated for completion of assessment for individually-focused CBT.

A four systems-based systemic formulation offers a useful structure to represent often complex systems, allowing an 'at a glance' overview highlighting major maintaining processes: representing the most significant processes on one sheet of paper, using the systemic formulation template, is particularly helpful in evaluating the relative contributions of major maintaining processes and also in identifying any areas that have not been covered in questioning at all. This enables the young person, family or wider system, and the therapist, to: consider treatment options; estimate likely timescales for change; predict difficulties in treatment; and when necessary, to refocus therapy. The location and nature of major maintaining processes in the formulation will have implications for which interventions to prioritise and will also have prognostic importance: where symptom amplification is predominantly in the 'here and now' problem situation through positive feedback cycles between the four systems of response, change can occur relatively rapidly between weekly sessions; however, where key maintaining processes involve core beliefs, longer-term working will be required since change at these levels of cognition is much slower, often taking months or even years. Where individual (intra-psycho) maintaining factors predominate, individually focused CBT will be the treatment of choice. For many children and young people CBT with the wider system will need to be offered in parallel with, or in preference to, individual therapy. This is because interpersonal, or even interagency, processes are both maintaining and exacerbating problems. Where parent or carer cognitions and consequent behaviours or affect are powerfully involved, the systemic intervention of choice is often to offer parallel parent/carer sessions to

re-explore their cognitions, link them with past life experience and, through use of standard cognitive therapy techniques consider their present functionality and accuracy. It is important for client and therapist to consider carefully through use of the formulation which intervention(s) are most likely to yield benefit at any particular point in time and set of circumstances and to prioritise those interventions over, for example, less challenging but less potentially beneficial interventions or those where sufficient prior work has not yet been completed.

Figure 6.5 represents the four systems systemic formulation derived for Will's difficulties early in therapy. As can be seen, key maintaining cycles existed at the four systems level for Will as an individual. Such processes in the 'here and now' can be relatively rapidly resolved if clients are motivated, through psychoeducation, inviting the client and family to change their safety behaviours and to increase exposure to graded levels of distress to learn that fear responses will habituate if no escape is used. This level of intervention might be sufficient for many clients to return to activities of daily living within a number of weeks. This may also be the case with Will to some extent, but the formulation suggests that his difficulties may also be rooted in longer-standing, conditional assumptions and core beliefs about, for example, self-assertion and its consequences and his sense of self. Such core belief-level difficulties are typically much slower to respond to treatment, with change occurring over many months of (ideally self-prescribed) repeated interventions to target core beliefs, construction of alternative, more balanced thinking patterns and logging further life experiences that validate new beliefs and disconfirm unhelpful beliefs. In addition to this, the family also have catastrophic beliefs about expressed affect that may have contributed to Will's long-standing beliefs about self-expression and certainly maintain his safety behaviours of self-concealment. In the case of Will's parents, these reactions were in separate parental interviews tracked back to underlying deeper levels of cognition, based on childhood experience, and similarly, therefore, would take some significant period to address fundamentally, although some shorter-term work could be done to help his mother and father recognise the inappropriateness of some of their responses in the acute problem situation (and therefore to suppress them), through understanding that they were, however, appropriate responses to past, but not present, experience.

Four systems systemic cognitive behavioural formulation

Use of four systems systemic cognitive behavioural formulation can lead to systemic CBT therapeutic process when working on an individual, carer-child, family or wider system basis: whichever form of systemic CBT working is used, however, it is always explicitly based on systemic cognitive behavioural formulation, using the Socratic questioning style and empirical exploration such as recent events analysis to encourage self-reflection and guided discovery.

Systemic cognitive behaviour therapy with the child individually

In individual sessions, it is helpful to encourage children or young people to look outside themselves because they often come to therapy with a very internal (e.g. self-blaming) focus. Looking at the history and interactional processes of their family context and also at the helpfulness or otherwise of others' present reactions provides a broader understanding

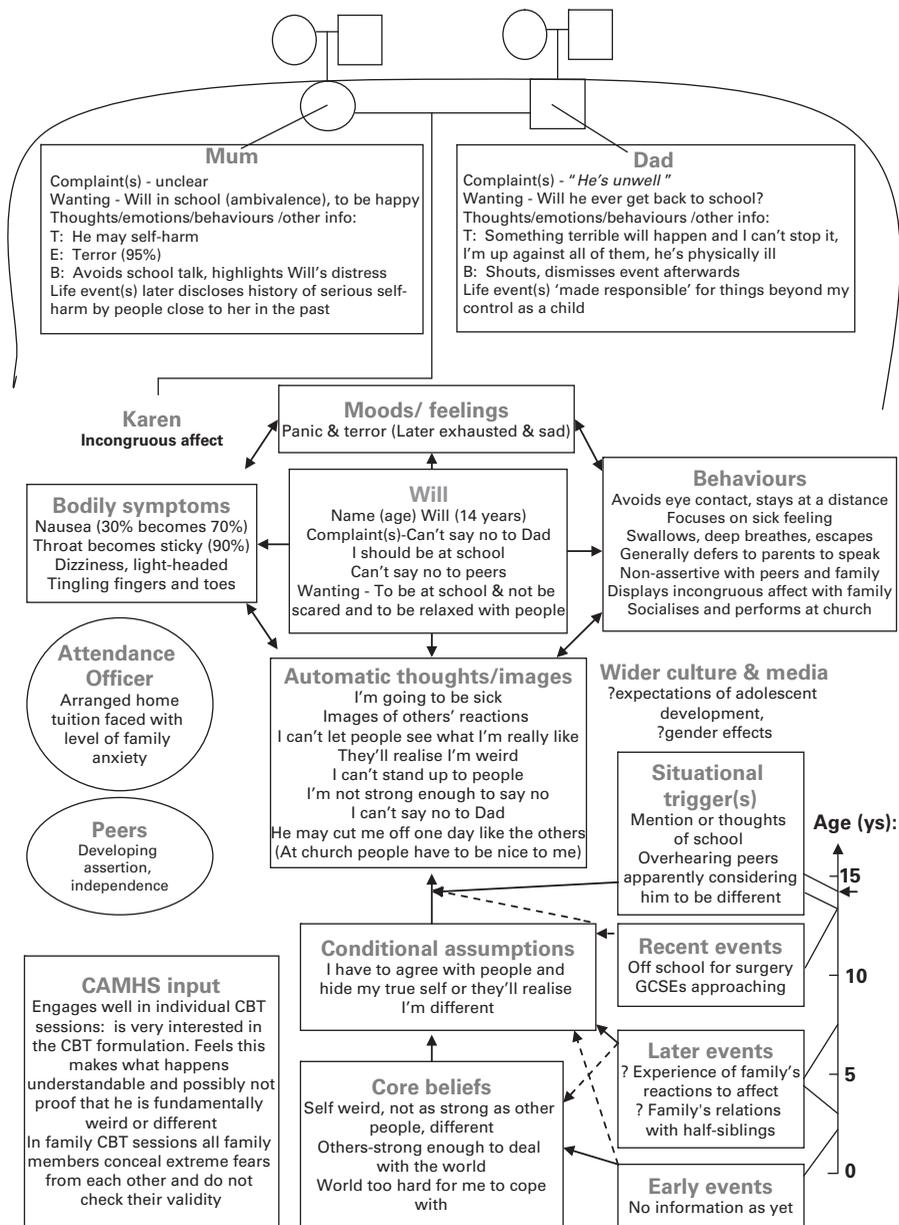


Figure 6.5 Four system systemic cognitive behaviour therapy formulation for Will.

not only of difficulties but also of what is necessary for change, particularly when others may need to change too. Much exploration of systemic factors can be done on an individual basis, for example, by looking at evidence for and against their perceptions and predictions of other family members. For example, relationally focused expectations and attributions can be examined to clarify where these are based on actual experience or are simply assumptions. Many of our young clients have subsequently been enthusiastic about using

their individual formulation as a basis for family sessions. This process acts as a means of communication with the wider family, and also as an opportunity for the young person to explore, with their family, how responses of others link with their problem. As when working with the wider family and system, however, emphasis is kept on how the young person and those involved may be able to change things together.

For example, with Will, the formulation firstly gave him a new explanation (magnifying cycles between the four systems of response in the immediate problem situation) for his difficulties. This gave him an opportunity to question his long-held belief that his problems were a fundamental reflection of his intrinsically flawed, 'weak' self. Following on from this, he could start to consider how his expectations of and attributions about those around him might be being distorted by his affective state. He could also start to believe that others, including his peers at school, could be similarly sifting their perception of reality and noticed examples at school where peers had misunderstood each other. He started to dare to reality-test his beliefs about others' perceptions about him, instead of continuing to use withdrawal and avoidance, finding that more often than not people weren't even thinking about him and that the focus of conversation was actually elsewhere. He came to develop a more universal understanding of himself and also of others as all capable of misinterpreting social situations and becoming stuck in wholly unnecessary 'fear cycles' if they let their initial fears 'take over'. Reflecting on his family, he could start to believe that their apparently angry, critical or devastated reactions to his being upset might not actually be what they seemed and might actually relate to internal 'thinking errors' they too were 'getting caught up in' at the time. He was keen to share this understanding with his family, but despite being talkative and self-reflective in individual sessions, he was noticed in parallel family sessions still to be deferring to his parents to speak, remaining overwhelmed by them. He and his individual therapist were able to reflect on this separately and Will chose to try to introduce their conversation into family sessions by the two of them presenting his individual formulation, centred within the sculpt he had made of his family members.

Systemic cognitive behaviour therapy with the child and parent or carer

Toren *et al.* (2000) have helpfully highlighted how parents can be involved in therapy as co-therapists, facilitators or as clients. Pragmatic factors and the formulation will determine which is appropriate. The formulation will also indicate where significant supportive or maintaining processes are occurring largely within one key relationship and so where one key supportive relationship may be used as a basis for working, particularly with younger children. In such parent-child sessions, sequences of interpersonal interactions taken from recent problem episodes can be explored through four-system recent event analysis using the systemic template, in order to highlight mediating cognitions and affects. Standard techniques can then be applied, to examine the accuracy and relevance of key attributions and predictions about each other's behaviours.

Systemic cognitive behaviour therapy with the family

Four systems Socratic recent events analysis of recent problem and positive events can form the foundation of a collaborative systemic process wherein the family (including wider system agencies, as required, see below) can explicitly explore previously implicit systemic processes. The aim in systemic CBT family working therefore, as with all forms of systemic

family therapy, is for family members to come to feel safe enough to disclose their experiences. They need also to hear each others' experiences without activation of their usual defensive reactions and for the family to then digest this as equal participants in a dialogue in constructing a new, fuller picture (represented in the evolving four systems systemic formulation) from which to consider opportunities for change *together*. To do this, a trusting and secure therapeutic relationship (and setting for sessions) needs to have been established so that family members feel secure enough to drop habitual defensive behaviours and simply hear and acknowledge the feelings and opinions of other family members. It can be explained that we are helping the family to 'put on the table' their experiences and digest or 'chew them over *together*' to consider the richer breadth of all their shared experience so that a new reality can be constructed to evaluate the validity of formerly-held 'rules to live by' or schemas. Families in this way are helped to complete a '*Socratic closure process*' (Padesky, 1993) wherein they are asked questions that they have the knowledge to answer but that also draw attention to information outside their present focus. This encourages them to apply new information to formerly held beliefs, so they can evaluate these old beliefs and construct new, more broadly informed conclusions.

Where family systemic CBT seems to be indicated it is important to obtain explicit consent from the young person and family, that therapy will not place undue emphasis on any one individual as needing to change. It can be helpful to involve two therapists in systemic CBT with a family; the individual CBT therapist as well as a CBT trained systemic therapist. A range of techniques commonly used in family therapy can be useful (Dallos & Draper, 2010). For example a family sculpt can be used early in therapy. Circular questions are very helpful in opening up a dialogue of family members' perceptions and expectations of each other. The family is encouraged to use ratings to evaluate the relative contributions of different elements of the formulation and given homework tasks of self-monitoring and subsequently of undertaking interventions derived from the formulation and evaluating the outcomes. Regular review sessions are scheduled. The intention is, as with CBT in all settings, to foster skills of self-observation and problem solving to promote independence, highlighting that these are skills for daily living that can have enduring utility. Many individual and family narratives function at the core belief level so the time to change can be months, rather than weeks. For this reason, family sessions are usually offered on a frequency of three- to four-weekly and over a period of months, much as with more traditional forms of family therapy.

The right to individual confidentiality within the systemic context is explicitly acknowledged, but it is also highlighted that individuals will need to judge where something they are keeping personal may actually be maintaining difficulties for others. At one extreme, excessive secrecy can prevent resolution of difficulties as it leaves everyone (often inaccurately) guessing what each other believes without the chance to reality-test these perceptions and assumptions. Use of the formulation together with affect, bodily symptom, behavioural and belief ratings is important to highlight where such factors are directly contributing to family process that has a direct bearing, for example, on the young person's presenting difficulties. Therapist experience and support in supervision are of course also important here. Parents or carers often reveal highly idiosyncratic and powerful cognitions that are active in the acute problem situation for the young person and will require separate intervention to change.

For some families marital work or individual therapy for one or both parents may be required. Schwebel and Fine (1992) have delineated the characteristics of maladaptive family schemes as being: overly rigid and inflexible views of the world and people; strongly held; eliciting strong affect; strongly reinforced by behaviours that individuals are not consciously aware of; often not explicit as they are outside of awareness and only activated when they are challenged (individuals and families have often evolved ways of living to avoid such challenge). We have encountered such individually held and shared family beliefs of all the categories described by Baucom *et al.* (1989) about a vast range of topics relating to family functioning, for example: gender expectations; parental roles and the role of children (e.g. who decides things and who doesn't, who supports and who gets supported by others); family boundaries and proximity; power and control; tolerance of difference; alliances and divisions and communication of uncomfortable affect. Will's family members, for example, all shared a tendency to hide their true feelings and display incongruous affect. Four systems analysis of a problem episode (see below) revealed that they all tended to form very different catastrophic conclusions if any one of them appeared to be experiencing intense feeling.

Family members need to feel comfortable and 'safe' enough with the sessions and relationships in the room to drop their habitual defences and reflect on not only others' but also their own experiences and reactions and at times to voice extreme individual reactions. Establishing a trusting therapeutic relationship with the family is essential, as is an ability to recognise and discourage skewed dialogues that place too much emphasis on one individual or are overwhelming for participants. It can be helpful to consider positive events before exploring less comfortable topics. Strengths, resources and positive change are also acknowledged and celebrated throughout therapy. It is generally useful to use humour, to use language which normalises family experiences and to accept that the therapist is fallible and has their own assumptions and thinking errors. A non-judgemental stance is implicit in the Socratic questioning style employed. Much normalising is carried out reflecting on what most people might conclude from the information available.

Will's family were initially invited through a family sculpt to draw themselves on a large piece of paper and to note how each individual prioritised problems and goals. After some explanation that we all have thoughts, feelings, behaviours and bodily symptoms all the time that may or may not be recognised accurately by those around us, the family was asked to explore times of happiness and relaxation together by considering their thoughts, emotional responses and what they did as a consequence. All were invited to note their four system responses on the same large sheet of paper and came to share a humorous dialogue and banter with each other about their perceptions. They also shared misperceptions of each other, resulting in quite a pronounced mood shift in the room with displays of resilience and humour by individuals who had previously been very withdrawn in discussion. Between sessions, they undertook to keep logs of similar episodes, fostering skills of self-monitoring. They were subsequently encouraged to start to consider times of difficulty and encouraged to note down their individual responses separately as a prelude to sharing them. To Will's surprise his parents chose the previous Sunday evening as a time of great difficulty. Socratic questioning was employed to encourage the family members as separate individuals initially to note down on separate pieces of paper privately for themselves the events of the evening and their own private thoughts, feelings and behaviours and to rate intensity and belief levels where possible. Asked how they felt after doing

this, Will's mother and father reported that it brought the experience of the evening back to them vividly. Karen reported a similar reaction and Will reported much perplexity at his family's distress and went on to assert that in fact he'd felt fairly relaxed all that evening despite the fact that it had been school the next day.

He was back in regular attendance at this stage through separate work with the attendance officer and school (described below). Mother and father were highly disbelieving of Will initially, but when he reacted in complete surprise to this reaction of theirs, they relaxed palpably and his father was then very keen to show his piece of paper listing his responses. This highlighted that he had been very distressed when Will came to him with apparent consternation on his face because he had assumed the cause of Will's distress to be fearfulness about school the following day. The memory of many Sunday nights with Will vomiting and overwhelmed by anticipatory anxiety about school had been so intense that it 'felt just like being right back at the beginning again' and 'all those feelings came back, mainly powerlessness', and just 'knowing' (100% belief) 'there's something physically wrong with Will' and 'I can't help Will but everyone's ready to blame me for not being able to help' (100% belief). Will's father had been 'devastated' (100%) and 'frustrated' at this, particularly as he found his wife looking at him 'as if I should be doing something – so I just lost it and shouted at her'. Asked about this feeling of powerlessness, Dad described feeling powerless to help on all these occasions, just as he had as a child when his parents often left him to look after his siblings alone. On one occasion, his little brother had been seriously ill with the situation way beyond his control, and he had been criticised heavily by his parents on their return. He recognised from this that feelings relevant to one situation had been activated disproportionately in another. It took some time for Will to recognise the moment when his father had thought he looked anxious but eventually tracked it to when he had gone to ask his father where something was in the house. His father had looked preoccupied so Will had gone to look for it himself. Karen reported hearing her parents shouting and had thought they'd discovered she'd broken an ornament she'd hidden and so she laid low for the rest of the evening. Mother reported seeing Will looking troubled walking away from his father and had immediately thought Will was going to have one of his 'school panics'. She had looked to her husband for support and then been shouted at and had felt 'useless' and also felt '95% terror'.

After further digestion of the events of the evening together, both parents and Karen all reported a sense of relief and that they had learnt 'we aren't very good at mind-reading'. Mother did not in this session fully explain her terror but much later on in the family sessions reminded everyone of the episode and explained that she had had an intense (95%) belief that Will might be about to self-harm, but now from repeated analysis of such occasions had learnt that he never experienced such thoughts at all. She explained that she had had earlier experience of people close to her (she did not wish to disclose who) self-harming and since then fears of something similar came to mind 'too readily'. Following further systemic recent events analysis of times of comfort and difficulty, the family came to recognise recurring patterns, such as that they tended to experience extreme automatic thoughts whenever a member displayed (or appeared to display) upset and that a consequence (and maintaining factor) of this was that all of them tended to try to conceal their feelings from one another. They gradually came to be able to stand back from thoughts they had about each other's apparent distress, recognising them as 'knee-jerk conclusions' that 'need proof *before* you believe them'.

Systemic cognitive behaviour therapy with the wider system

Much generic work in child and adolescent mental health services involves helping other agencies to take a wider-system perspective on cases, so that tailored multi-agency packages of support may be provided. A systemic formulation is a useful basis for dialogue in working with outside agencies and supporting networks. Use of the four systems exploration of interacting thoughts (particularly expectations, priorities and organisational discourses), behaviours and affect (e.g. discomfort triggered by organisational imperatives) can provide an informative explanatory model. Communicating the formulation structure is helpful in ensuring that the young person is considered in the context not only of their family or care arrangements, but also in the context of other (often very complex) professional networks.

In Will's case, a parallel session was held (with his permission) to share key aspects (fears, emotions) of his individual formulation with his attendance officer and class teacher. They were then encouraged to speculate on a systemic formulation of the key school and therapy influences that we had listed around Will (including all of us, therefore) in looking at the pros and cons of reacting to Will's distress in certain ways. In this session, the attendance officer and class teacher both voiced wider system service imperatives and standards that had adversely influenced their decision-making in relation to Will. Will joined a second session to think jointly with them about how to facilitate a graded programme of return to school and how all involved would monitor his progress.

Use of four systems systemic cognitive behaviour therapy formulation in training and supervision

Four systems systemic CBT formulation provides a conceptual framework for therapist training that explicitly develops the competence to integrate developmental, attachment and family and wider system influences. The formulation structure offers an 'at a glance' overview that highlights and allows comparison of major maintaining processes and can also identify where insufficient information has been obtained and so where to direct future questioning. Components of a systemic case formulation can be discussed in supervision from available clinical material on the understanding that such hypothesising requires subsequent testing against the client's experience and does not replace the collaborative process of formulation carried out in the room collaboratively with the client. In a recent (2004) survey (Table 6.1) of CBT-trained CAMHS professionals, respondents (20 out of 23 surveyed, response rate 87%) reported that they found the systemic template clear and simple to use and to be helpful not only in CBT with children, young people and families, but also in integrating insights from other psychotherapeutic models into CBT.

Summary

Integrating developmental, attachment and family and wider-system factors into CBT with children, young people and families carries many advantages. Research on systemic CBT is as yet at too early a stage to inform clinical working but four systems systemic CBT formulation is derived from empirical application of core cognitive behaviour theory and process to working on a systemic basis. As such it can be used in conjunction with case-based and standardised measures to tailor interventions empirically with individuals, carer-child dyads, families and with wider systems to yield better outcomes for children

Table 6.1 Mean and median ratings (with full range of responses, from 0 = not at all to 5 = extremely) given by 20 generic CAMHS professionals (with varying levels of cognitive behaviour therapy (CBT) expertise) for utility of the systemic CBT template for different processes.

Process considered	Median rating	Range
CBT with children, young people and families	5	1–5
CAMHS work more widely	4	1–5
Being clear/simple to use	4	2–5
Integration into CBT of other psychotherapeutic models	4	2–5
Integration into CBT of influences external to the child	4	2–5

and families. Collaborative four systems systemic CBT formulation leads to a distinct therapeutic process that shares some features with other systemic therapeutic modalities of different theoretical origin and provides a structure that has been useful in supervision and therapist training. This approach is well-established as the basis for individually focused CBT but its use with families and wider systems remains to be formally evaluated, particularly in comparison to other helpful systemic interventions already in use within CAMHS. There is growing feedback from young people and families that it opens up new ways of understanding and opportunities for change.

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Section 3

Client groups

Working collaboratively with parents and carers in cognitive behaviour therapy (CBT)

Cathy Creswell, Sam Cartwright-Hatton and Natalie Rodriguez

This chapter will explore some of the issues involved in working with parents and carers within a cognitive-behavioural framework. It will begin with an exploration of the evidence base relating to the involvement of parents in cognitive behaviour therapy (CBT). It will then cover some of the difficulties that commonly arise, with our suggestions for managing these. Since the majority of the evidence focuses on involving parents where the child has a behaviour problem or an anxiety disorder, much of the chapter will focus on these two conditions. However, many of the conclusions drawn here are transferable to working with parents whose children have other difficulties.

Parental factors have frequently been associated with the development of emotional and behavioural problems in young people. Intergenerational studies have shown that psychological disorders commonly run in families (Beck, 1999) and environmental factors appear to have a major role in their development (Gregory & Eley, 2007). As a result, in the last two decades much research attention has been paid to associations between parental factors (such as parental mental health and behaviours) and the development of psychopathology. Consistent associations have been found between these parental factors and childhood emotional and behavioural problems (Connell & Goodman, 2002; McLeod *et al.*, 2007), and there is now a widespread assumption amongst clinicians that parental involvement in treatment for childhood problems is essential (Stallard, 2005). Whilst we concur that involving parents or carers in treatment is indeed important, the manner and extent to which parents should optimally be involved in treatment is not always clear and two important considerations must be borne in mind. First, associations between parental factors and childhood disturbance are often modest in magnitude (Beck, 1999; McLeod *et al.*, 2007), and second, studies that have compared outcomes from individual child-focused CBT (CCBT) with family-based CBT (FCBT) have not always shown superiority of FCBT (Creswell & Cartwright-Hatton, 2007; In-Albon & Schneider, 2007). These findings are subject to methodological limitations, such as those associated with methods of assessment and the varied ways in which parents have been involved in treatment, but they do suggest the need for careful consideration of how and to what extent parents should be involved in treatments for different children with different presenting problems. Clearly there are circumstances in which parental factors appear to have particular influence on both the development of childhood difficulties (Dodge & Pettit, 2003; Murray *et al.*, 2009) and child treatment outcomes (Creswell & Cartwright-Hatton, 2007; Kazdin, 1995). The aims of this chapter

are to consider how and in what circumstances we should work with parents in order to optimise child treatment outcomes, and how best to engage parents and maintain a collaborative approach to treatment of their child's difficulties.

Ways of involving parents in treatment

The role of parents has varied widely across CBT-based interventions, within and across areas of childhood difficulty. Stallard (2005) describes four roles typically assigned to parents: facilitator, co-clinician, co-client and client. In the facilitator role parents are responsible for ensuring their children attend sessions, and may attend some sessions aimed at informing them about the rationale and principles of treatment. In the co-clinician role parents participate in the treatment programme alongside their children, in order to promote children's application of CBT skills in their day-to-day environment. Finally, in the co-client or client role, parental factors become a direct target of treatment, either alongside work directed at child factors (co-client) or as the sole target of treatment (client). In practice, parents are likely to take on different roles at different stages in treatment. For example, it may be necessary to invite the parent in to a client role in order to address parental behaviours that may prevent the child from benefitting from child-focused CBT. Accordingly, family-based treatment packages typically include elements of each of these different roles. For example, the Cool Kids' treatment programme for childhood anxiety involves nine parallel child and parent group sessions, during which parents are introduced to the CBT skills covered in the child sessions, but parental behaviours that may maintain child anxiety are also targeted (Rapee, 2000). Similarly, in her parent-based treatment for children with conduct problems, Webster-Stratton targets strategies for managing child behaviour, as well as considering with parents ways of accessing personal support (Webster-Stratton *et al.*, 2004). Exactly how parents should best be involved in treatment at any time will depend on the formulation of the child's presenting problems, in particular the extent to which parents are able to work with their child to implement CBT principles and the extent that parental behaviours reinforce or impede the adaptive cognitions and behaviours that CBT aims to promote.

Parental influences on children's cognitions and behaviours

Parental influences on the development and maintenance of children's maladaptive cognitions

Parental influences on the development of maladaptive cognitive styles have been implicated largely on the basis of a number of studies that have found significant correlations between child and parent reports on a range of cognitive bias measures, including threat interpretation (Creswell *et al.*, 2005), attributional style (Alloy, 2001; Seligman *et al.*, 1984) and dysfunctional attitudes (Alloy, 2001) (although see Gifford *et al.*, 2008; Halligan *et al.*, 2007). Models of the development of both anxiety and conduct problems in youth have suggested that one prominent route by which parental cognitions may influence children's developing cognitions is via parents' expectations regarding their children and parents' subsequent behaviours (Alloy, 2001). For example, in relation to a depressive attribution style it has been suggested that children may develop negative explanations for their own behaviour and events, via the internalisation of

explanations given by people around them (Garber & Flynn, 2001). Similarly, in relation to child anxiety, it has been suggested that parental beliefs about child vulnerability in a dangerous world may lead to parenting behaviours that promote the development of anxiety in the child (Rubin *et al.*, 2001), by teaching the child that the world is a dangerous place from which they need to be protected via behaviours, such as negative information transfer (Chorpita *et al.*, 1996; Field *et al.*, 2008), and limited promotion of autonomy (Hudson & Rapee, 2004).

Parental influences on the development and maintenance of children's maladaptive behaviours

Parental factors have also been implicated in the development and maintenance of maladaptive child behaviours. One route is through verbal information (Field & Lawson, 2003). While parents can reduce children's problems in social exchanges through social coaching and advice giving (Pettit *et al.*, 1997), discussions with parents can also promote more negative behaviours, such as avoidance and aggression (Barrett *et al.*, 1996). Parental modelling is also an established influence on children's behaviours. For example, child avoidance has been found to increase after exposure to parental modelling of fear (de Rosnay *et al.*, 2006; Gerull & Rapee, 2002), particularly for temperamentally inhibited children (Murray *et al.*, 2008). Similarly aggressive behaviours are promoted by children's observation of aggressive models (Cummings *et al.*, 1981). In relation to childhood behavioural problems, a number of studies have also highlighted the role of negative reinforcement of aversive behaviour (Patterson, 1982), inconsistent and harsh discipline practices (Dodge *et al.*, 1994), and a lack of warmth toward the child (Pettit & Bates, 1989). These factors appear to pose a particular risk amongst high-risk groups (e.g. children from low socioeconomic backgrounds) (Dodge *et al.*, 1994).

Wider parenting and socialisation practices have received scant research attention, but are likely to be important influences on children's developing cognitions and behaviours by creating (or restricting) opportunities for children to experience different environments to learn and practice different ways of thinking about and managing problems. For example, children of parents who actively foster preschool social experiences show less anxious behaviours, and fewer absences when they enrol in kindergarten in comparison to children of parents who are less active in fostering social experiences (Ladd *et al.*, 1993). Similarly, stable experiences of a well-adjusted group of non-aggressive peers, and opportunities to develop positive peer relationships, protect against the development of aggression (Pettit *et al.*, 1996). Parents, particularly of younger children, may have a key role in facilitating children's positive social experiences.

Common cognitive-behavioural family maintenance cycles

The studies cited above point to a number of ways in which parental responses may reinforce maladaptive child responses. Parental responses should therefore be considered carefully in assessment and case formulation.

A simple example is provided in [Figure 7.1](#). Here we can see a cognitive-behaviour maintenance cycle for anxiety, in which the child's fear that something bad is going to happen leads to avoidance, which in turns leads to a failure to disconfirm their negative

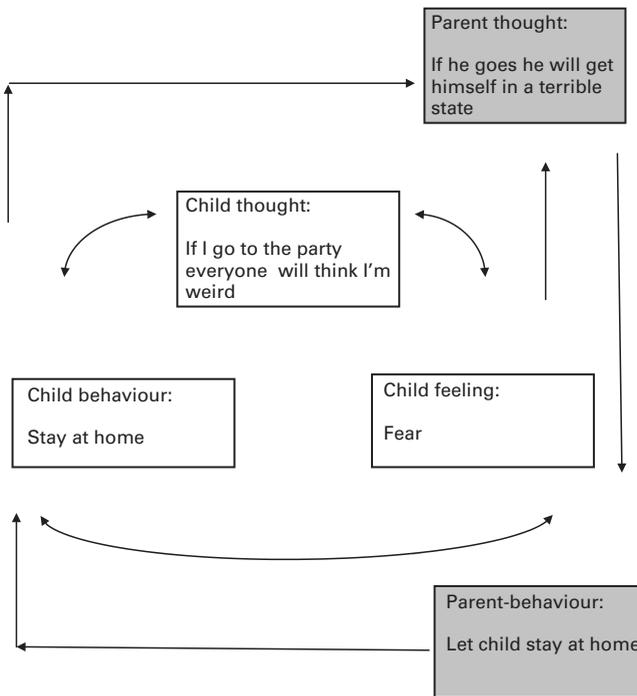


Figure 7.1 Simple family cognitive-behavioural maintenance cycle.

expectations and develop coping skills. Parental cognitive and behavioural responses may reinforce this cycle, for example if the parent anticipates that the child won't be able to cope with challenge and so reinforces avoidant behaviours¹ (Creswell *et al.*, 2011).

In Figure 7.2 we can see a similar cycle in which the parent views the child's misbehaviour as wilful and sees him- or herself as having little parenting efficacy, and so at first fails to act until losing patience and responding harshly, thus promoting the development of a hostile attribution style in the child (Dix *et al.*, 1989). Crucially, parent-child influences in this model are bi-directional. This proposal is supported by findings from recent treatment studies for both anxiety disorders and conduct problems, which have reported that improvements in young people's presenting problems from pre- to post-treatment predicted reductions in parental negative behaviours at the post-treatment assessment (Silverman *et al.*, 2009; Webster-Stratton *et al.*, 2004). In other words, when children improved from treatment, parental behaviours improved. Consistent findings come from a recent study in which mothers of children with anxiety disorders and mothers of non-clinical children were observed interacting with an unrelated child from the same diagnostic group as their own child, and an unrelated child from a different diagnostic group (i.e. anxious or not anxious) (Hudson *et al.*, 2009). When helping them to complete a challenging task, all mothers were more involved when they worked with clinically anxious

¹ To keep this example simple we have represented the interaction between a child and one parent. The diagram could of course be elaborated to incorporate the responses of additional carers or family members who may respond in different ways, which may act to maintain or work against the vicious cycle described.

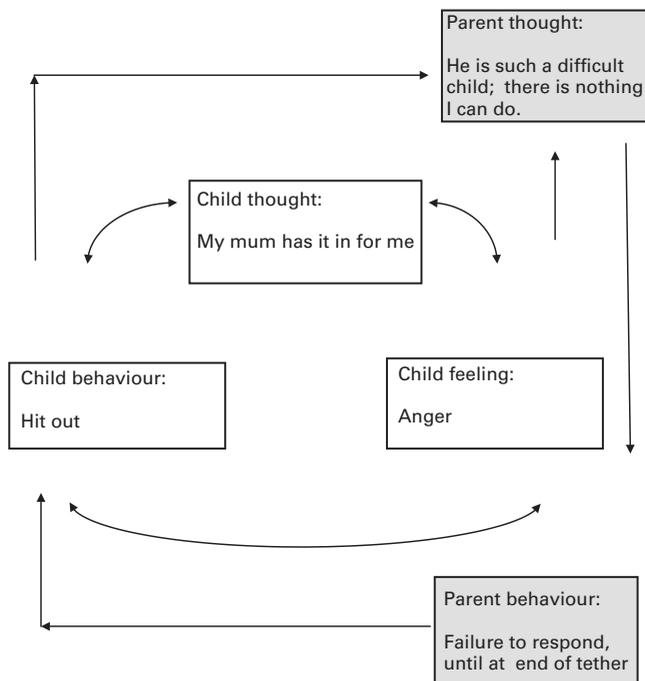


Figure 7.2 Simple family cognitive-behavioural maintenance cycle.

children than with non-clinical children, suggesting that the children's anxious behaviours influenced the extent of maternal involvement. These findings emphasise the reciprocal relationship between childhood difficulties and parental behaviours – a factor which is essential to keep in mind in order to work collaboratively with parents and avoid parents experiencing their involvement in treatment as an indication of blame for their child's difficulties.

How to include parents in treatment

From the above findings we can make a number of suggestions to guide decision-making about how to include parents in treatment for childhood problems. First, where young people are willing and able to engage in treatment and parents are responsive to their children's progress and can create opportunities for children to put in to practice what is happening in treatment, then parent involvement in treatment in a facilitator role may be sufficient (i.e. parents will ensure the child attends treatment and be involved in sessions focused on psychoeducation, progress reviews and homework planning). Including the parent as a co-therapist may, however, maximise this opportunity by keeping parents fully informed about the content of their child's treatment, and providing them with information to support their child in case of future setbacks.

In situations where children are not able or willing to engage in treatment, parental involvement will of course be crucial. Equally where children are at a developmental stage at which they are heavily influenced by parents, in terms of the influence of parental mood, cognitions and behaviours, and also in terms of being reliant on parents to organise

activities, maximising parental involvement in treatment is likely to be an efficient approach to treatment delivery. In these situations, recruiting parents as co-therapists who can put the principles of CBT into practice in the child's day-to-day life is likely to be of benefit.

In situations in which parents are not able to respond flexibly to changes in their child's responses in difficult situations, and as such continue to respond to the child in a manner that may maintain the child's difficulties, more intensive involvement of parents is likely to be necessary. For example, if a parent continues to anticipate that their child will be highly distressed, despite their child making some gains from treatment, this may limit the child's opportunities for exposure to potential stressors. Similarly, if a parent anticipates that their child will respond aggressively and so fails to notice and praise positive change, this is likely to act counter to any gains made within child treatment. Environmental factors, such as stress as a result of economic disadvantage, unemployment and poor housing have been associated with reduced sensitivity to children's needs and choices regarding management strategies (Rubin & Mills, 1992). Parental factors such as low mood or high anxiety (Cobham *et al.*, 1998) and negative cognitive styles (Lester *et al.*, 2009) are also likely to influence parent's expectations of their children's responses. In such cases, involving parents as co-clients or clients may lead to improved treatment outcomes by promoting parenting practices that will reinforce children's positive progress.

In addition to these general principles, some specific factors that appear to influence the impact of parental involvement in treatment are described below.

The nature of the child's difficulties

There are particular areas of childhood difficulty where parental involvement appears to be particularly important. From the principles outlined above we would suggest that parental input will be particularly important where the nature of the child's difficulties leads to a difficulty or reluctance to engage in treatment, and/or where parental factors play a key role in the maintenance of disorder. Direct comparisons of cognitive-behavioural treatments with and without family components have been most commonly conducted in relation to childhood behavioural problems and anxiety disorders. Generally, for childhood behavioural problems, treatments which train parents to alter maladaptive parent-child interactions are considered the most promising of available treatments (Kazdin, 1997), although the combination of parent behaviour management training and social problem-solving has produced greater changes in child behaviour problems (Kazdin *et al.*, 1990; Webster-Stratton & Hammond, 1997).

Meta-analyses of studies including a range of anxiety disorders have failed to find substantial differences between child and family CBT approaches (In-Albon & Schneider, 2007). Where studies have compared outcomes for different disorders, significant differences have not been found (Barrett *et al.*, 1996). However, studies have typically been underpowered to detect differences in outcomes between particular disorders, and matters are complicated by the high degree of comorbidity between disorders. Few studies have compared outcomes for FCBT and individual CCBT for specific anxiety disorder groups. Two exceptions are social anxiety disorder and anxiety-based school refusal. For social anxiety disorder, a non-significant trend towards superior results was found when parents were involved in treatment of 7–14-year-old children, although this reflected 87.5% of children being free of their social phobia diagnosis in the FCBT group compared with 58%

in the CBT group which could be considered a clinically meaningful difference, which would have been statistically significant with a small increase in the number of participants (Spence *et al.*, 2000). For anxiety-related school refusal, outcomes following the inclusion of parents in therapy (along with teachers) were particularly marked, with improvements in school attendance being equivalent whether or not (7–14-year-old) children were included in the treatment (Heyne *et al.*, 2002). The authors suggested that for children to overcome their difficulties with anxiety, the crucial aspect of treatment was getting the child to attend school (and thereby experience exposure) in a supportive manner, and commonly parental input will be required to make this happen.

In summary, few studies have compared CBT approaches with and without family input for specific areas of child difficulty, but the evidence available to date suggests that where children exhibit challenging behaviour and are refusing to attend school, parental involvement is of particular importance. Studies to date have typically failed to distinguish between maternal and paternal input in treatment, though studies of parenting programmes for children with behavioural disturbance have suggested that improvements in parenting practices and child behaviours are enhanced when fathers are involved in treatment, compared with when they are not (Lundahl *et al.*, 2008). More research into engagement and inclusion of fathers in treatment is clearly warranted.

Child age

Parental input in the delivery of CBT is often considered to be particularly important for younger, compared with older, children. Pre-adolescent children typically depend more on their parents as sources of social support and appraisal information than adolescents (Furman & Buhrmester, 1985; Baker & Entwisle, 1987). Adolescents, on the other hand, are likely to have more conflictual relationships with parents than younger children, and at this age peers become an important source of social support (Buhrmester & Furman, 1990) and influence on cognitive appraisals (Freeman *et al.*, 2011).

Few studies have directly considered age effects in relation to outcomes from family-versus child-focused CBT treatments, although there are some notable exceptions in relation to the treatment of childhood anxiety disorders. Barrett *et al.* (1996) reported a striking effect of age: 100% of 7–10-year-old participants were free of their primary anxiety disorder diagnosis following FCBT, compared with 55.6% in the CCBT condition. For older (11–14-year-old) children, however, there was no advantage of FCBT over CCBT. These findings were not replicated by Bodden *et al.* (2008) however, who did not find a significant interaction between age and treatment condition (CCBT vs. FCBT); in other words older and younger children did not differ significantly in outcomes in either treatment group. Notably the structure of treatment in these two trials varied considerably, with parents being involved in a larger number of consecutive sessions in the Barrett *et al.* (1996) treatment programme than in the Bodden *et al.* (2008) treatment programme. Further research attention is required to clarify whether parental involvement in treatment has a particular advantage for younger children.

While the above studies have considered the utility of adding parental involvement to child-focused CBT, an alternative approach is to consider what can be achieved by working with parents alone. Indeed, recent studies have emphasised the fact that good outcomes can be achieved for young children with anxiety problems by working solely with parents. Cartwright-Hatton *et al.* (2011) administered a 10-session CBT group treatment to 74

parents of children aged less than 10 years who had a diagnosed anxiety disorder, and found that 57% of children were free of their primary anxiety disorder by the end of treatment, compared with 15% in the waitlist comparison group. Furthermore, in another study with young children, the inclusion of children in parallel treatment sessions did not lead to improved treatment outcomes compared with treatment delivered to parents alone (4–9 years; Waters *et al.*, 2009).

The fact that good outcomes for pre-adolescent children with anxiety problems can be achieved by working with parents alone has led to recent developments in low-intensity approaches to treatment of childhood problems. For example, guided self-help CBT has been successfully administered to parents of anxious children. Lyneham and Rapee (2006) reported that 79% of rural Australian children (6–12 years) whose parents received written materials with telephone therapist support were free of their primary diagnosis by the end of treatment. In a UK primary care population, 61% of children (5–12 years) were free of their primary diagnosis after receiving a low-intensity treatment which involved receiving a self-help book and 5 hours of therapist contact (face to face and telephone) (Creswell *et al.*, 2010). In summary, for pre-adolescent children, working through parents can be an efficient and effective way of delivering CBT. It also seems likely, though this is yet to be tested, that working exclusively via parents will promote parents' sense of perceived control and confidence in managing their child's difficulties, which may help them to manage possible future setbacks that the child may face independently and effectively.

Presence of parental psychopathology

Psychopathology often converges within families. For example, in the case of anxiety disorders, rates of disorder amongst the mothers of anxious children are significantly raised above the base rate (Cooper *et al.*, 2006). The presence of parental psychopathology has also commonly been associated with poor treatment outcomes from CBT-based approaches (Cobham *et al.*, 1998; Reyno & McGrath, 2006). Furthermore, remission of parental mental health difficulties, such as depression, is associated with reductions in children's problematic mood and behaviour (Weissman *et al.*, 2006). Inclusion of parents in treatment, however, has not always led to improved child treatment outcomes, emphasising the importance of the specific nature of the intervention that parents are involved in. For example, Bodden *et al.* (2008) found that children whose parents had a diagnosed anxiety disorder did less well following FCBT than those who received CBT. In contrast Cobham *et al.* (1998) reported an improvement in outcomes of CBT for anxious children with a highly anxious parent from 38.9% to 76.5% with the inclusion of four sessions focused on 'Parent Anxiety Management'. Notably, however, in this study parents did not report significant reductions in their own levels of anxiety, suggesting that the positive effects of treatment may have resulted from change in some other parent-related processes, such as parental cognitions and/or behaviours. Further investigations are required to identify exactly what factors need to be modified in the context of parental psychopathology, and whether parental symptoms or, for example, associated parental behaviours are best targeted in family-based treatments.

Barriers to working collaboratively with parents in treatment

The extent and manner in which parents are best included in CBT treatments thus varies as a function of a range of factors, though at the very least it appears important to ensure

that parents understand the rationale and guiding principles of treatment, and are involved in reviewing the child's progress and planning and reinforcing homework tasks. With younger children, and with particular problem types, treatment may most efficiently be delivered entirely through parents, which has the added benefit of minimising the time that children are removed from age-appropriate activities to attend therapy sessions, instead building their 'treatment' into their day-to-day lives. Where parental factors (such as mood, cognitions and behaviour) are likely to get in the way of children's progress, addressing these within treatment will be important. Each of these ways of working with parents requires the parent to engage in the treatment process. Even at the most minimal levels of parent involvement in treatment, parents will typically be responsible for making sure their child attends treatment. In child and adolescent services high rates of drop-out have often been reported (e.g. 40–60% attrition; Wierzbicki & Pekarik, 1993), and premature treatment completion is associated with reduced therapeutic change from treatment (Prinz & Miller, 1994). A number of factors have been identified that predict missed sessions and treatment drop-out, as described by Kazdin's (1996) 'Barriers to Treatment' model. This model proposes that there are multiple barriers to treatment including family, parent and child characteristics (such as deprived socioeconomic circumstances, parental stress and psychopathology, and severity of child disturbance), practical obstacles, parental perceptions that treatment is overly demanding or irrelevant, and a poor relationship with the therapist. Of note, where parents perceive few barriers to treatment this is associated with reduced drop-out amongst families who are at high risk of ending treatment prematurely (i.e. due to socioeconomic factors, parental psychopathology and stress or child problem severity) (Kazdin & Wassell, 1999). In terms of the parent–therapist relationship, there have been no studies to date that have focused on the parent–therapist alliance specifically in relation to CBT for childhood problems. However, studies that have included children who were administered CBT alongside those who received other interventions suggest that a positive parent–therapist alliance is important for minimising session cancellation and promoting family participation and parent satisfaction with treatment (Hawley & Weisz, 2005; Kazdin *et al.*, 2006). In some cases, parent–therapist alliance has also been found to be positively associated with improved parenting practices (Kazdin *et al.*, 2006) and treatment outcomes for young people with externalising (Hawley & Garland, 2008) and internalising (McLeod & Weisz, 2005) problems. These findings highlight the importance of attending carefully to barriers to treatment and the parent–therapist alliance throughout treatment. In her review of interventions that aim to reduce drop-out in treatment for children and adolescents, Ingoldsby (2010) highlights the following characteristics as being common to successful approaches: (i) explicit identification of potential obstacles to treatment, (ii) discussion of family expectations of treatment, (iii) collaborative planning to address challenges to engaging in treatment. These elements should be individualised, intensive and integrated into treatment.

This section will now discuss some of the most common difficulties that are faced when working with parents in a CBT context, and will briefly describe our approach to managing them. We will begin by discussing initial difficulties that can arise in engaging parents in treatment, and move on to difficulties that we have faced further down the treatment line. Notably however, in our experience, several overarching processes are key in managing all obstacles to working with parents.

Overarching processes

Collaboration

All good CBT is collaborative in nature. The best CBT feels like a joint enterprise between the therapist and the client, with no one member of the dyad holding expertise or status over the other. Successful working with parents is no different. When parents feel that they are working as part of a team with the therapist and on an equal footing with them, fewer difficulties arise. Of course, the therapist does have some expertise that the parent usually does not, but equally, the parent has more knowledge and understanding of their child than the therapist will, and the information that the parent holds is often crucial to the success of the intervention. We have found that beginning the therapy process with an explicit statement of the therapist's respect for what the parent brings to the table is an essential part of initiating treatment positively. Equally, inviting the parent to participate in agenda and goal setting will be crucial to setting up a collaborative approach to treatment, as will developing shared formulations with parents using simple diagrams (such as those in [Figures 7.1](#) and [7.2](#)). Throughout treatment care must always be taken to recognise and highlight what parents are doing well, using concrete examples, in order to empower parents and encourage them to take ownership of the treatment process by illustrating the positive impact that their response to their child can have.

Humour

We have found that use of humour in the treatment context can be very successful at reducing tension and introducing difficult messages. Although not all therapists feel equipped to operate in this way, there is no doubt that amusing role plays can help transmit important messages, particularly in a group setting. For instance, when talking about the risk of children copying anxious behaviour from a parent, one of us (SCH) typically uses badly over-acted examples of a parent over-reacting to an upcoming dentist appointment, to demonstrate how anxiogenic messages can be quickly and easily transmitted to a child.

Metaphors

There has recently been an interest in the use of metaphors in CBT (Stott *et al.*, 2010). We have found that using metaphors and stories can be very useful to conveying complex or threatening messages to parents. Moreover, a good story is easy to remember and to pass on, and can provide parents with a useful means of transmitting and reinforcing therapeutic messages to their child. Examples of metaphors that we use with parents are 'Zipper Mouth' and 'Botox Face' (Cartwright-Hatton *et al.*, 2010). There are many clinical contexts where it is useful for parents to disguise their current emotion, for example when trying to ignore an entertaining but ultimately undesirable behaviour in their child, or when they themselves are feeling very afraid but do not wish to convey this to their anxious offspring. In these cases we ask parents to call to mind the British 1970s Children's TV show 'Rainbow' which featured a character called Zippy whose mouth could be zipped up when Geoffrey finally cracked. When parents feel themselves about to laugh/shout/worry out loud, they are asked to imagine zipping up their mouth like Zippy, so that no noise may emerge. 'Botox Face' is presented as 'a slightly more advanced technique', where the parent is invited to imagine that they are a film star (insert any one of a large number of names) who has had far too much botox, and cannot move a muscle in their face. This way, their

emotion (amusement/anger/fear) is kept hidden from the child. Of course, we don't mean parents to go about pretending to be an orange alien with a flip-top head, or an ageing actress with a wrinkle problem. Rather, we use the metaphors to cement the concept that children learn very easily from parents, so sometimes it is best to try to control what emotion you put on display to them.

Supervision

Supervision is critically important in all types of CBT, including, of course, when working with parents and families. It is easy to get overwhelmed by parents' problems, or consumed by the intensity of negative cognitions that they sometimes present. Supervision is extremely helpful in allowing the clinician to step back from this and in helping the therapist to identify the sometimes small positive steps that a family is making.

Initial engagement obstacles

A number of obstacles can impact on the initial engagement of parents into therapy, particularly as it sometimes comes as a surprise to parents to find that the therapist wants them to take an active role. These obstacles are often underpinned by beliefs, such as the following.

'I'm not the one with the problem'

The lay perception of psychotherapy typically involves the individual with the difficulty being guided to health by an individual therapist. Many parents are, therefore, quite surprised when they are asked to take any kind of role in treatment, and particularly so when they are asked to attend without their child. In this situation, we are at pains to emphasise that while we do not blame the parent for the child's difficulties, the parent is better placed than anyone else to help the child overcome their problems. Most parents whose child is attending for treatment readily report that they have difficulties encouraging the child to do the things that they need to do (go to school, behave appropriately, socialise, etc.) and when therapy is framed as an opportunity to amass some successful ways of managing these situations, they welcome the support. Therefore, the manner in which the parent is initially approached for participation is of critical importance. As well as making it clear that the parent is not blamed for the child's difficulties, it can be useful to frame the intervention as an opportunity for the parent to learn more about their child's condition, and skills for managing it.

'I'm too busy'

Parents are busy people, and it is often difficult for them to fit the sessions, and the tasks and challenges that arise from them, into their lives. Services can involve parents better if they are flexible in the delivery of therapy – allowing evening sessions, for example, or carrying out home visits. However, sometimes, this type of cognition can betray the fact that the parent is not yet ready to engage with the intervention. Reasons for this will need to be gently explored with the parent; for example, we have had some success using adapted motivational interviewing techniques with parents who are in this situation. Similarly, using strategies such as problem-solving with parents can not only help identify potential

solutions to practical problems, but also give parents first-hand experience of the potential utility of some of the tools that their child is learning.

‘I’m not a shrink’

Parents often balk at being involved in their child’s intervention, particularly when it is clear that they will be expected to help with some of the therapy itself – for example carrying out exposure or behavioural experiments at home. When setting this sort of task for parents, it is always important to explore parents’ expectations about what will happen, and to ask ‘Are you feeling OK about doing this?’ or similar, to allow them to voice worries or concerns. It is always worthwhile reassuring parents that we will not ask them to do anything that could harm their child and that if things don’t go completely to plan, this is alright, and together we will learn from the experience and move on.

Post-engagement obstacles

There are, of course, a multitude of problems that can arise in the course of therapy, and many of the issues that arise in individual work also arise when working within a family context. However, we will restrict ourselves to discussion of some of the more major issues that we have faced in working with parents.

Parental mental health

Sometimes it becomes clear that the parent’s own mental health difficulties are going to impact on treatment. Parental mental health difficulties can manifest in a whole host of different ways, and interfere with the child’s treatment in a similarly large number. It is not possible, therefore, for us to go into any great detail as to how these situations might be managed. Sometimes, it becomes clear that the child is unlikely to progress unless the parent’s symptoms improve, and in this case, it might seem sensible to attempt to help the parent access treatment in their own right. Sometimes, however, this is not necessary, and it is sufficient to use some targeted cognitive therapy techniques with the parent around the particular symptoms/cognitions that are potentially maintaining the child’s difficulties. If successful, the child’s treatment might move forward without the need for the parent to undergo successful treatment themselves. So, for example, an anxious parent might find it difficult to push their child to do exposure exercises as part of their treatment. In this case, it can be useful to develop a fear hierarchy not just for the child, but for the parent too, so that they are gradually exposed to their child’s distress. At the same time, other cognitive therapy techniques, such as pros and cons analyses, behavioural experiments, and the vertical arrow technique can be employed to loosen parental beliefs that might be underlying their distress (such as, ‘pushing my child to face her fears could harm her’ or ‘I won’t be able to cope if he gets upset’).

Life events and life circumstances

Many of the families that we work with come to us at times of real crisis. It is the exception to meet a family struggling with child mental health difficulties where there are no background difficulties with work, money, family breakdown, parental mental illness, legal issues and so on. Sometimes these issues have a direct bearing on the case (e.g. parental

mental health or ongoing legal or social services proceedings). At other times they have a more tangential but no less corrosive impact on intervention. One example is where a child is being treated for anxiety difficulties, but it emerges that the family are living in genuinely threatening circumstances – poor housing, in an area of high crime, under threat of domestic violence, for example. In these circumstances, parents, for clear adaptive reasons, may be giving their children very threatening messages about the world and promoting and modelling fearful, submissive behaviour. Clearly if the threat can be modified, this must be a first priority, but if it cannot, then the parents need to be helped to find a balance in protecting their child from genuine threat whilst giving them a positive outlook on life. Persuading the parent that they need to modify this behaviour can be very difficult. However, when given the space to consider the impact of learning very negative beliefs about the world (such as ‘the world is a dangerous place’ or ‘I cannot trust other people’) parents recognise that it will not be possible for their child to develop any degree of confidence until they see the world in a more positive light. Using standard cognitive therapy techniques with the parent themselves, we have had some success in helping parents give their children a more positive message than they hold for themselves.

Moreover, when the parent is coping with challenging circumstances, having the resources to engage with their child’s treatment can be difficult. It can be useful to spend a little time helping the parent to consider what resources are available to help them manage their situation and, additionally, to assist with the new challenges of their child’s treatment. For instance, we often ask parents if they have someone – a friend, sibling, mother, for example, who can act as their cheerleader as they proceed through treatment. This needs to be someone who will provide positive support, not criticism, and who can help with some of the practicalities (e.g. finding little rewards for a behaviour management programme) or just doing a bit of babysitting for an hour or two a week to allow the parent to come to sessions or just have some ‘me time’.

Lack of support from partners

It is not uncommon to find that other adults in the household undermine a parent who is doing well at making changes in their management of their child. Without delving into relationship therapy, these issues can be difficult to resolve. However, explicit support and warm encouragement for the attending parent can go a long way, as can reassurance that when the new techniques begin to work, bringing positive changes for the child and the family, the sceptical parent often comes quietly on board. Also, although sometimes fruitless, it is always important to encourage the absent parent to come along to sessions wherever possible, and if not possible provide information and resources to keep them informed of the therapy process.

Other practical obstacles

Sometimes the smallest practical obstacles can scupper an intervention that might otherwise have worked well. For instance, parents often don’t carry out homework tasks because they don’t have the time or the skills to organise them. In order to minimise the chances of this happening, the therapist can do a number of things. In running groups for parents of anxious children, for example, when giving a home practice task, we always ask parents to write down not just what they will be doing, but also to decide where and when they will do

it, and to write that down too. When we plan behavioural experiments or exposure exercises, we ask the parents to think about and then write down what reward they will give the child on successful completion. We have no evidence to support this assertion, but we feel that this increases engagement with home practice tasks substantially. Similarly, whenever possible, we actually give parents the materials that they will need for tasks. So, we give parents lots of stickers to use as rewards, and pre-printed reward charts.

Difficult relationship between parent and child

Quite often, by the time a child reaches services for their mental health difficulty, this has already had quite an impact on the family. It is well known that the relationships between children with behaviour problems and their parents are often strained, but this strain can also be present where the child has an emotional or anxiety disorder. Parenting a child with the extra needs that mental health difficulties bring is often very tiring and distressing, and the parent-child relationship can suffer as a result. Where this is the case, work on the relationship will usually be needed before any effective work with the parent can take place. This work is usually embedded in manualised interventions for childhood behaviour problems, but can also be integrated into parent-focused interventions for anxiety and emotional disorders. Often, formal family-therapy type intervention is not needed, and this can readily be incorporated into a cognitive behavioural framework. For example, behavioural parent training programmes typically address relationship difficulties by requiring the parent and child to spend some quality time together, and giving the parent guidance on using praise and reward on a frequent basis. This can often resolve the situation sufficiently to move on with therapy.

Ups and downs

As we all know, the course of true therapy never did run smooth, and we find that it is worth preparing parents for any obstacles that we can foresee. So, for example, when teaching parents to withdraw attention for negative behaviours (otherwise known as ‘ignoring the bad behaviour’) we always warn them about the response burst that this is likely to trigger. So, we warn them to expect that it will be highly unpleasant the first time that they use it, and may not appear to have worked. We ask them to think about times when they might wish to avoid doing this practice for the first time (at the supermarket, the in-laws’ house . . .). Similarly, if a procedure is likely to be upsetting for a parent (pushing a child to face a fear, using negative consequences for an unwanted behaviour), we talk this through with the parent. This way, if there are any negative cognitions that could impair the parent’s ability to carry out the task (e.g. ‘I won’t be able to cope if he cries’), these can be addressed pre-emptively. Also, if the parent expects difficulties, it seems that they are less likely to be upset by them, and less likely to give up on the intervention, although we have no data to support this hunch.

Ending therapy

When ending an intervention that has involved parents, it is important to give as much attention to ending the relationship with the parent as with the child. Parents who have done very well in the intervention often ascribe the outcome to the therapist, rather than their own skills and abilities. Parents need explicit praise for the extent to which they have

brought about change in their child's difficulties, and reassurance that this success can continue without the therapist's guidance, although it is often helpful to make the offer of continued basic telephone or email support, if this is possible.

Parents need to end therapy with a realistic expectation of how their child will progress over the coming months and years. Unrealistic expectation of continued unbroken success, with no lapses or difficult patches, can cause parents to become hopeless and helpless when problems do arise. Towards the end of therapy, we help parents to anticipate where future difficulties might lie, and make some plans for tackling these.

Summary and conclusions

It will have become clear, in reading this chapter, that much of what we have said is based on clinical judgement, rather than a robust evidence base. Much more research into the role of parents in the development and maintenance of children's mental health difficulties is needed. Similarly, much more research is needed examining the best time, circumstances and techniques for involving parents in CBT for their children's problems. The evidence base is particularly sparse when questions about the role of the father are explored. The majority of the research described in this chapter has focused largely or exclusively on mothers. Similarly, research has either tended to focus on pre-adolescent children or included children across broad age ranges. Greater consideration of ways of working with parents of adolescents is sorely needed.

Despite this lack of evidence base, we feel safe in concluding that there is much to be gained from involving parents in CBT for children and young people. It is clear to us that developing a warm, non-blaming relationship with parents, and following this with CBT-based techniques to address parental factors that are highlighted in the formulation, is likely to be of benefit to the child, and possibly to the wider family too.

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Working with black and minority ethnic children and their families

Iyabo A. Fatimilehin and Amira Hassan

Introduction

The development of cultural competence in working with people from black and minority ethnic (BME) backgrounds is a focus of increasing attention in mental health research and practice literature (Bernal *et al.*, 2009; Evans *et al.*, 2010; Hays, 2009; Naeem *et al.*, 2010; Sue *et al.*, 2009). There is an acknowledgement that most psychotherapeutic interventions have been designed and developed in Western countries and have primarily focused on what works with populations of European descent in those countries and may not be appropriate or effective with people from other cultural backgrounds. These concerns have been prompted in part by the changing demographics and increasing numbers of people from BME backgrounds in Western countries. For example, the UK Office for National Statistics (2011) indicated that in England and Wales non 'White British' people comprise 12.1% of the population, and this population has grown by 4.1% per year since 2002 whilst the White British population has remained the same. In the UK, the highest rates of growth have been in Chinese (8.6%), Mixed White and Black African (6.3%), Black African (6.2%), Mixed White and Asian (5.8%) and Other (8%) groups, and the largest absolute growth has been in the Other White group that includes people born in other parts of Europe and from the old Commonwealth countries. Moreover, there are notable regional concentrations. For example, Leicester has the highest proportion of Asian Indian people at 19%, and 13% of the population of Bradford is Asian Pakistani. In London, 21% of the population of Tower Hamlets is Asian Bangladeshi and 9% of the population of Lewisham is Black Caribbean. These growths in population are the result of both birth and migration and therefore the age structure of many BME populations is younger than that of the White British population.

Disparities in access to mental health service provision are a focus of concern with regard to mental health care for people from BME populations. Within services for children and adults, there is ample evidence that services have failed to meet the needs of BME populations in terms of the accessibility and appropriateness of the services offered (Fernando & Keating, 2009; Kramer *et al.*, 2000; Lamb *et al.*, 2002; Malek & Joughin, 2004; Messent & Murrell, 2003). There is also evidence that experiences of discrimination and disadvantage result in significant barriers to the use of statutory services by people from minority ethnic groups (Fatimilehin & Coleman, 1999; Malek, 2011; Malek & Joughin, 2004; Messent & Murrell, 2003). The UK government has introduced guidance and legislation aimed at addressing race equality in service provision over the past two decades (Race Relations (Amendment) Act 2000, Delivering Race Equality (DRE): A Framework

for Action, Equality Act 2010), and the principles of race equality and social justice have been embedded in other initiatives such as the National Service Framework (NSF) for Children, Young People and Maternity Services, Every Child Matters, The Human Rights Act (1998) and No Health Without Mental Health (2011). However, the disparities in service provision have continued despite these policy directives.

Recent initiatives such as DRE and Improving Access to Psychological Therapies (IAPT) have only focused on children, young people and their families as an afterthought and BME children have not been a primary focus either because of their age (initiatives about BME people have focused primarily on adults) or because of their ethnicity (initiatives about children have not focused on ethnicity) (Malek, 2011). The disparities in the accessibility and appropriateness of mental health services for BME children and their families persist in the UK (Care Quality Commission, 2011; Edge, 2011; Malek, 2011) such that children and families from South Asian, Black Caribbean and Black African communities are under-represented amongst those referred to Child and Adolescent Mental Health Services (Kramer *et al.*, 2000) and African Caribbean families experience more coercive routes of referral than families from other groups (Messent & Murrell, 2003). Similar concerns are reflected in the research literature from other countries such as the USA, Australia and the Netherlands (Cummings *et al.*, 2010; de Haan *et al.*, 2012; Flores & Tomany-Korman, 2008; Rickwood *et al.*, 2007).

This chapter will briefly explore the main issues and controversies in cultural competence and adaptation of existing therapeutic approaches followed by an overview of the research effectiveness of cognitive behaviour therapy (CBT) and other evidence-based therapies with BME children and families. It will then describe a framework and propose issues for consideration when working therapeutically with particular emphasis on CBT and other evidence-based approaches. Finally it will examine the use of models of cultural adaptation of therapeutic intervention and present a specific example.

Cultural competence and cultural adaptation

The ability to engage BME children and their families in psychotherapeutic interventions has been linked to the 'cultural competence' of the therapist. However, the literature abounds with controversy regarding the definitions and components of cultural competence, its relevance as a concept, approaches to cultural competence and its amenability to research testing. Definitions of cultural competence emphasise different aspects of the process and content of therapeutic assessment and intervention, and these include the kind of person one is, the skills or intervention used and the processes involved (Sue *et al.*, 2009). Whaley and Davis (2007) defined cultural competence as 'a set of problem-solving skills that includes (a) the ability to recognise and understand the dynamic interplay between the heritage and adaptation dimensions of culture in shaping human behaviour; (b) the ability to use the knowledge acquired about an individual's heritage and adaptational challenges to maximise the effectiveness of assessment, diagnosis and treatment, and (c) internalisation (i.e. incorporation into one's clinical problem-solving repertoire) of this process of recognition, acquisition and use of cultural dynamics so that it can be routinely applied across diverse groups' (p. 565).

The notion of cultural competence is contentious due to its political nature and this has led to criticisms of political correctness (Sue *et al.*, 2009) and colonialism (Evans *et al.*, 2010). Thus it has been stated that striving for cultural competence is little more than a political act that risks stereotyping BME people and denying the relevance of other dimensions of identity and

experience. Cultural competence has also been perceived as attempting to fit people from diverse cultures into Western psychological models and theories. Furthermore, there is a tension between acknowledging the universal as opposed to the specific aspects of culture and a concern about overemphasising cultural categories. Essentially, the argument is that an emphasis on cultural competence runs the risk of ignoring the ways in which people from different cultures are similar and have the same needs and concerns (that is, that there are more commonalities than differences between people from different cultural groups) and this means that little attention is paid to other aspects of identity (e.g. social class, gender, age, etc.). Nevertheless, the extent of diversity within any particular BME group is acknowledged by many scholars, and the influence of personal characteristics and beliefs of the therapist is also a focus of enquiry. Thus it can be seen that the literature reflects the range of attitudes that a therapist may have towards working with difference.

Effectiveness of CBT approaches with BME children and families

Most research supporting evidence-based treatments has been conducted with white people in Western societies (Bernal *et al.*, 2009; Rathod *et al.*, 2010). Hays (2009) highlighted some limitations of CBT when working across cultures owing to its emphasis on individualistic values such as assertiveness and personal independence as opposed to collectivist cultures that value acceptance and interdependence. She described many cultures as valuing ‘... subtle communication over assertiveness, interdependence over personal independence, listening and observing over talking, acceptance over behaviour change, and a less linear cognitive style, and a more spiritually oriented world view’ (p. 356).

Nonetheless, it is clear that CBT is used routinely with adults from BME groups (Rathod *et al.*, 2010). Voss Horrell (2008) reported mixed findings in a review of research on the effectiveness of CBT with adult minority ethnic clients. She concluded that CBT appears to be effective with people from some minority ethnic backgrounds but not others and for some presenting problems but not others. A growing body of literature is devoted to the cultural adaptation of evidence-based therapies (Kiang *et al.*, 2010; Rathod *et al.*, 2010). The rationale is that this approach represents a middle ground between developing entirely new therapies for each cultural group and using unmodified therapeutic approaches with BME groups (Bernal *et al.*, 2009). Generally, cultural adaptations include ethnic matching of client and therapist, delivering therapy in the first language of the client, translation of materials, multicultural training for therapists, and addressing values and cultural meanings as a route to cultural competence with specific cultural groups (Voss Horrell, 2008; Bernal *et al.*, 2009). Thus adaptations to therapy have been proposed and validated for Latino populations in the USA (Kiang *et al.*, 2010) and for South Asian populations in the UK (Rathod *et al.*, 2010) amongst others.

The few studies that have been conducted found that culturally adapted CBT was either as effective as non-adapted CBT or produced superior outcomes for adults (Sue *et al.*, 2009; Whaley & Davis, 2007). In studies that demonstrated superior outcomes for culturally adapted CBT, larger effect sizes were found with clients with low levels of acculturation, with adaptations that focused on one ethnic/racial population, and where the language of client and therapist were matched (Sue *et al.*, 2009). Nonetheless, concerns have been raised about treatment fidelity with culturally adapted therapies along with a view that informal adaptations of CBT are widespread where therapists are working with people from BME groups (Sue *et al.*, 2009).

There is very little research on the effectiveness of CBT with children and families from minority ethnic backgrounds and on the effectiveness of cultural adaptations to interventions. Sue *et al.* (2009) concluded that the added value of cultural adaptations is more apparent in research on adults as opposed to children and young people. However, there is increasing research into cultural adaptations of evidence-based parenting programmes. For example, two widely used parenting programmes designed to reduce children's oppositional and negative behaviours, the Triple P Positive Parenting Programme (Sanders, 2012) and the Incredible Years Parenting Programme (Webster-Stratton & Reid, 2010) appear to be effective with a wide range of minority ethnic families (Leung *et al.*, 2003). Cultural adaptation of the Triple P Positive Parenting Programme is limited to modifications of the examples used by practitioners when delivering the programme.

The Strengthening Families Strengthening Communities (SFSC) parenting programme was specifically developed to meet the needs of multi-ethnic communities in the USA (Steele *et al.*, 2000) and was subsequently adapted by the Race Equality Foundation for the UK population. The SFSC programme uses a cultural framework that covers five areas: cultural/spiritual, enhancing relationships/violence prevention, rites of passage, positive discipline and community involvement. Like the Incredible Years and Triple P programmes, it is based on social learning theory but also uses facilitative discussion to enhance parent competence, parent-child interactions, child competence, parent relationships and community involvement. Wilding and Barton (2009) undertook an evaluation study of the SFSC programme. They used pre- and post-course measures of 1919 parents attending 152 courses and found statistically significant improvements in parenting over the duration of the programme that included an increase in family activities and discussions, an increase in the use of positive discipline and communication strategies, a decrease in the use of negative discipline and communication strategies, an increase in participants' competence, and an increase in children's competence. A comparative evaluation of the roll out of the Triple P, Incredible Years and SFSC programmes across 18 local authorities in England concluded that they produced comparable outcomes on all measures of improvement including parental mental well-being, parenting behaviour, parental efficacy and self-reported satisfaction (Lindsay *et al.*, 2008, 2011). It is important to note that in contrast to the Wilding and Barton (2009) study in which 61% of the study participants were of BME origin, the majority of the participants in the comparative study (Lindsay *et al.*, 2011) were described as White British (80.7%). Therefore the implications of the outcomes of the comparative study for BME parents are unclear. Nevertheless, whilst the SFSC programme may not have produced better outcomes, there may be some advantages in terms of higher completion rates and in terms of parental involvement with the wider community (Lindsay *et al.*, 2011).

Enhancing engagement and effectiveness of therapeutic intervention

When working with BME children and families, there are frameworks for implementing cultural competence that emphasise the complexities and dimensions of human diversity and can be used to guide assessment and formulation. These frameworks emphasise the socially constructed nature of 'culture' and promote an incorporation of diversity. The value of these frameworks also has to be considered in light of the changing demographics and globalisation of culture. For example, people of mixed 'race' form one of the fastest-growing sections of the population in England and Wales. This suggests that many families

are multicultural and that a therapist could be working with people with different cultural world views simultaneously. Furthermore, there may be different levels of acculturation in families such that some family members adhere more to the values of the dominant culture than others. Moreover, individual clinicians, especially those working in large cosmopolitan cities, may need to be trained in, or have access to a wide range of therapies adapted to a range of cultural groups. It is also arguable that we are working cross-culturally more often than we think. Cultural competence is usually assumed to apply to people who fit broad categories of 'race' and culture and often those who are visibly different from the white population. However, the variations in identities and culture within the white populations (e.g. based on social class, geographical origin, sexuality, etc.) highlight heterogeneity in cultural experience and cultural production. Therefore, in this chapter, we espouse an approach to cultural competence in everyday clinical practice that is process based rather than culture specific. The latter approach is evident in the literature with regard to specific cultural groups (Foo & Kazantzis, 2010; Rathod *et al.*, 2010) and is not, in our view, redundant but complementary to the process-based model. It is essential when working with projects that are targeted at specific groups and can be used to provide specific examples of the way in which cultural difference can be manifested in therapeutic encounters. For example, parenting groups with parents from some South Asian and African backgrounds indicated that the use of verbal praise was not as acceptable as it was with White British parents (see Paiva, 2008) and therefore, more culturally appropriate methods of recognising children's achievements were routinely incorporated in work with individual families.

One example of a process-based model is the framework proposed by Hays (2009) describing 'Ten Steps to Cultural Competence'. This framework emphasised a focus on culturally respectful behaviour, the use of culturally related strengths and supports, an examination of cultural environmental factors as well as cognitive factors, validating self-reported experiences of oppression, and emphasising collaboration over confrontation.

The work of Celia Falicov (1995) is another example of a model that provides a useful and robust framework for working with difference (Falicov, 1995). Her work is based on family therapy and systems theory and was developed in the context of working with Latino families in the USA. She proposed a Multi-dimensional Comparative Framework that: '... goes beyond the one-dimensional definition of culture as ethnicity and aims at a more comprehensive definition of culture that encompasses other contextual variables' (p. 375). This consists of four key parameters that organise the comparison of similarities and differences in concepts, experiences or values across variables such as social class, ethnic group, religious affiliation, gender or sexual orientation.

The *ecological context* denotes interactions between families and the communities to which they belong (e.g. work/employment, schools, institutions, neighbourhoods) and emphasises the experience of marginalisation and how this impacts on a person's affect and attributions (such as learned helplessness, internalisation of negative expectations and shame). The implications of the process of *migration and acculturation* can be seen in the 'uprooting of meaning' that occurs when life-long relationships and environments are disrupted resulting in post-traumatic effects, grief, mourning and disempowerment (particularly relevant for parents who are raising their children in cultures different from those in which they were raised themselves), and depression when expectations are not met. Thus Falicov underscores the importance of the 'migration narrative' as part of the process of therapy. The third key comparative parameter is *family organisation* and the ramifications of this can be demonstrated through an examination of the concept of the dominant dyad.

The nuclear family is organised around the husband–wife dyad whilst the central relationship in pre-industrial/traditional/working class/extended families may be the parent–child dyad. Falicov outlines the ways in which the dominant dyad may influence hierarchy, communication styles and emotional expressivity in families and the ways in which it interacts with gender and generation. However, increasing globalisation means that members of a family may have different views and expectations that emanate from their conceptions of the dominant dyad. The fourth key comparative parameter is the *family life cycle* and here there may be differences in the assumed course and timing of major family and individual transitions. A good example is the achievement of individuation and personal identity. In many Western industrialised cultures it is assumed that this task occurs and is completed in late adolescence and early adulthood. However in other cultures, the process of becoming independent is not necessarily valued to the same extent and in the same way. There may be a longer stage of interdependence between parents and children with children not leaving home until they get married, and interdependence continuing even beyond marriage. It is important to critique the developmental norms on which assumptions are based. Furthermore, Falicov suggests that: ‘understanding the functions that unity, loyalty and communal life have for persons of rural, traditional, religious or impoverished backgrounds may help trainees see that, in these groups, individuation and its implications for mental health differ from those given by the middle class urban prescription’ (p. 383).

Developing a therapeutic relationship

Cultural competence encompasses general competency in the ability to form therapeutic relationships with clients, to assess and formulate the nature of the difficulties experienced by the client and to deliver psychotherapeutic interventions. In addition to the essential qualities of empathy, warmth, and genuineness, the importance of maintaining a respectful, validating, non-judgemental and collaborative stance cannot be over-emphasised when working with families from BME cultures (Hays, 2009; Rathod *et al.*, 2010).

This is especially the case given the many experiences of marginalisation and discrimination that children and families will have experienced in their daily lives and in their encounters with institutions (such as work places, schools, and immigration services). These experiences often lead to people being hypervigilant to the possibility of being disrespected and not being believed and can lead to disengagement in the therapeutic process even if they attend for appointments (e.g. due to pressure from schools or criminal justice or legal institutions). However, the ways in which respect is communicated can vary considerably across cultures. For example, in some cultures, direct eye contact can indicate confrontation or hostility and people may avoid direct eye contact in order to show respect (Naeem *et al.*, 2010). This is especially pertinent when working with children from cultures where direct eye contact with adults is seen as disrespectful.

Appropriate forms of greeting and use of names and titles should also be negotiated with the family in order to avoid communicating a lack of respect. For example, in many cultures young people do not call older people (especially those who are old enough to be their parents) by their first names, and in some cultures, there are restrictions on physical contact (such as shaking hands) between members of the opposite sex. Extreme caution has to be exercised when interpreting verbal and/or non-verbal behaviour as aggressive or submissive, and there are many instances in which the verbal behaviour of a young person (e.g.

African Caribbean) has been interpreted as hostile or confrontational when this mode of communicating feelings may be culturally based.

Communication is hampered further where English is not the first language of the family or young person. Even in situations where the person has been in the UK for several years and manages their day-to-day lives (e.g. work, school, etc.) without the assistance of an interpreter, it can be very difficult to communicate complex emotions and cognitions using a second language. Furthermore, the language of their childhood and early development may be the one in which they most easily and accurately convey their emotions. Nonetheless, the use of interpreters can be helpful if this is negotiated with both the client/family and the interpreter in terms of the personal background of the interpreter (e.g. ethnicity, gender, etc.). Interpreters can be contracted to provide consultation regarding cultural context and culturally specific issues that arise in the work. However, the use of an interpreter does have some disadvantages in terms of the impact on the therapeutic relationship, the necessity of adequate training for interpreters and those who work with them (see Tribe & Raval, 2002), negotiating the role of the interpreter and briefing and debriefing the interpreter. Furthermore, there are often concerns raised by families regarding confidentiality (especially where there are few people in the local area who speak that language and the interpreter is from the same community) (Rathod *et al.*, 2010). Therefore, the use of bilingual therapists is a much preferred option.

The gender of the therapist can have a significant effect on the therapeutic relationship for all people but even more so for people from some BME communities where contact with members of the opposite sex is highly regulated. Disengagement is the most likely outcome of a situation where this is not negotiated or where there are no alternatives offered.

The development of a good working relationship will also be enhanced considerably by an approach that emphasises collaboration rather than confrontation (Hays, 2009). The notions of collaborative formulation and collaborative empiricism (Dudley & Kuyken, 2006) can be helpful here but with an acknowledgement that in some cultural groups (e.g. South Asian Muslims) a more prescriptive approach may be preferred (Naem *et al.*, 2010).

It is not possible to be prescriptive about the best approach to any particular family from a cultural group. However, it is important to be aware of the range of factors that can impinge on the development of a therapeutic relationship. In the case of BME families, the use of a multi-dimensional framework highlights experiences of migration and acculturation and the impact of these can be negotiated with the family.

Assessment, formulation and intervention

Cognitive-behavioural approaches emphasise the central role of cognitions in producing and maintaining behavioural and affective responses. The client's perspective and agency are the main focus, and there is a strong emphasis on current problems and mutually agreed goals for change (Dudley & Kuyken, 2006).

Brammer *et al.* (1993) argued that beliefs and thoughts are closely related to values and that if the therapist's values differ significantly from those of the client, then there will be a corresponding difference in beliefs and thoughts. Wolpert *et al.* (2004) described CBT as using a range of techniques to change thinking, mood and behaviour. The process of cognitive therapy can be characterised as one that involves both collaboration and persuasion in which the therapist influences the client using a range of cognitive-behavioural techniques to challenge their irrational beliefs and thoughts. Arguably, the use of cognitive

techniques such as Socratic questioning and cognitive restructuring means that the therapist may then be in the position of ‘converting’ the client to their own world view and value system (Beutler *et al.*, 1991). Therefore it is essential that the therapist has a clear understanding of the values and world view of the family before attempting to intervene.

Rathod *et al.* (2010) argue that ‘... cognitive therapy must be modified to fit the values and belief systems of the given culture, as distorted cognitions in one culture may well become functional and adaptive ones in a different culture’ (p. 526). Hence it is essential that client and therapist have a similar basis for defining what is functional for that client in their culture and given their values. There are times when a therapist may consider a thought to be unhelpful and to be maintaining their difficulties when in fact it is of extremely significant value to the client’s religious or cultural beliefs (Propst, 1996). For example, during a CBT-based stress management group for Somali women, we noticed that the notion of ‘taking care of oneself’ was perceived by the women to be selfish as there was a strong cultural belief that they should prioritise the needs of their families over their own. Therefore, we emphasised the notion of ‘taking care of one’s family’ and introduced a rationale that reducing their own stress levels would enable them to achieve happier and better-functioning families.

Child-rearing practices provide good examples of the way in which values and beliefs can vary across cultures. Douglas (2004) described ‘distorted or irrational parental cognitions and beliefs’ amongst British families that lead parents to think that their child cannot survive without being fed during the night, or that the child will feel rejected or abandoned if left to sleep in their own bed. Douglas argued that these parental beliefs lead to the mother’s view that she should be available to the child all the time and therefore is unable to create any sense of personal space or privacy for herself. Whilst these beliefs and cognitions may well be ‘irrational’ or ‘distorted’ in individualistic cultures, they are more common in collectivist cultures that promote interdependence and values that prioritise group identity, responsibility for the community, subordination to the family and an approach to parenting that emphasises physical closeness between mother and child (Fatimilehin & Hassan, 2010; Greenfield *et al.*, 2003). Indeed the notion that babies should sleep separately in their own beds, and become independent in terms of meeting their own needs for comfort, is far more common in affluent, industrialised societies. Hays (2009) suggests that it is more appropriate to question the helpfulness rather than the validity of thoughts or beliefs during cognitive restructuring.

Within CBT with adults, there is a tendency to focus on the individualisation of the presenting issues, that is, the ways in which they impact on and are perceived by the individual and to use this to bolster the therapeutic relationship (Dudley & Kuyken, 2006; Wolpert *et al.*, 2004). Whilst Wolpert *et al.* explored the challenges and dilemmas of involving parents and other carers when using CBT approaches with children, these issues need further amplification when working across cultures. The influence of the extended family may mean that the therapist will need to work beyond the nuclear family, and depending on family organisation, may have to include others who are key decision-makers (such as paternal grandmothers in Bangladeshi families).

There are also factors pertinent to life-cycle stages that can precipitate presenting problems. For example, the rate of acculturation of children is usually much faster than that of their parents (due to immersion in school and with peers) and issues may arise when their acquired values and expectations conflict with those of their parents (Fatimilehin & Hassan, 2010). These issues are intensified in adolescence due to the Western cultural emphasis on increasing independence at this developmental stage (Greenfield *et al.*, 2003).

The therapist is most likely to hold the values of the dominant culture and it is important to be aware of the danger of colluding with the adolescent and supporting moves to distance themselves from their parents. It is essential that therapists are aware of this dynamic and are able to work towards a middle-ground or compromise that is in the best interests of the adolescent's longer-term psychosocial adjustment.

Wolpert *et al.* (2004) contend that CBT (or indeed any therapeutic intervention) should only be implemented with children and young people with their informed consent. They define this process as requiring 'an understanding of the risks and benefits of the intervention beyond the immediate discomforts and inconveniences that treatment may entail'. However, the stage of development of the child should be taken into account as their life experience and cognitive development may make it difficult for them to grasp the full implications of their decisions. Children and young people are often unaware of the wider and long-term consequences of holding values and beliefs that differ significantly from those of their families and of the consequences of distancing themselves from their families of origin. The therapist can play a very important role in promoting the ability of young people to develop bicultural competence and the ability to balance living in two different cultures.

The significance of an issue may be different in cultures that value interdependence. The expectations of behaviour and the consequences of not adhering to certain ways of thinking and/or behaving in relationships can have effects that go beyond the individual and are not conducive to his or her well-being in the longer term. For example, beliefs about doing things for the good of the community/family may be seen as dysfunctional in individualistic cultures but seen as normal and valued in collectivist cultures (e.g. Naeem *et al.*, 2010). Thus a focus on presenting issues solely as they affect the individual may not be helpful or acceptable when working with families from many BME cultures. The stigma of mental illness is a further example of the way in which a presenting issue for an individual may be closely tied into the wider belief systems of the community. A diagnosis or suggestion of mental illness may impact on other members of the family and even affect their own life chances (e.g. difficulties in securing marriages). These consequences can be far-reaching and an intervention that focuses solely on the cognitions of the individual is an inadequate response to the problem. An intervention that requires the involvement of the wider family (for example, in assignments between sessions) may be more congruent with the family's organisational structure and change can be explored in terms of the good of the family with less emphasis on the benefits for the individual.

The religious and spiritual beliefs of the family can also influence beliefs about the causes of psychological distress (for example, linked to previous wrongdoing or the evil eye) and it is unfortunate that many therapists appear to be unwilling or unable to engage with this aspect of psychosocial functioning (Rathod *et al.*, 2010; Waller *et al.*, 2010). It may be helpful to engage with religious leaders or consult with colleagues who follow the same belief system in order to clarify the extent to which a belief is shared by the wider community and to gain a greater understanding of the implications and opportunities afforded by the belief. Furthermore, mind and body are not separate concepts in many cultures and cognitions and emotions are mixed (e.g. Naeem *et al.*, 2010). Once again, interventions and assignments that are linked to religious or spiritual observance can be more effective and ensure better compliance than interventions that are not embedded in the family's cultural and religious belief systems. For example, linking the practice of relaxation to prayer as a time of quiet contemplation or encouraging families to pray together in a way that strengthens family aspirations and bonds. If the ecological context of the family includes experiences of discrimination, this may also have implications for their

belief systems (e.g. believing that mental ill health can be caused by being arrested by the police; Rathod *et al.*, 2010).

For people from BME groups the range of vulnerability factors that can predispose the person to stress and move them to the point where they can no longer cope can include migration, racism, minority status, social exclusion and marginalisation (Arnold, 2012; Fernando & Keating, 2009). In addition to this there is often a mistrust of services and consequent difficulties with help-seeking based on the history of the relationship between BME people and tertiary services. People from a range of BME groups are also likely to believe that statutory services do not have the ability to understand their difficulties (Fatimilehin & Coleman, 1999). Therefore, it is important to identify those core beliefs that are shared by the whole community and those that are not. The assumption that some beliefs or cognitions are dysfunctional whilst others are not is surely based on socio-cultural norms and is (arguably) an example of 'black and white' thinking.

A thorough assessment and formulation of the difficulties of children and families from BME communities must acknowledge and incorporate a range of protective factors (Boyd-Franklin & Bry, 2000; Hays, 2009). Whilst acculturative stress and the demands of adjusting to a new culture may pose risks for mental health, there are factors that can promote resilience and alter the effects of these stresses (Kiang *et al.*, 2010). These can include a wider range and depth of social support than is usually the case in families from Western industrialised cultures. For example, members of the extended family (such as uncles and aunts) can provide support with child care, finance, household chores and so on such that this ameliorates the effects of the presenting problem. In addition, bi-cultural competence and the ability to belong to two different worlds is a protective factor which is often overlooked because of the assumption that children who are raised in two cultures (e.g. home versus school) are vulnerable to identity confusion due to 'culture clash'. The fact is that many children raised in this way (including children of mixed 'race' or mixed ethnicity) benefit from having access to two cultures with their attendant belief systems and learn early to be able to take different perspectives. A strong and secure ethnic identity is also a protective factor and psychological research has often linked this with good psychosocial adjustment (Fatimilehin, 1999; Phillips *et al.*, 2008). Similarly, there is a growing research base that identifies religious and spiritual beliefs as conferring a range of benefits in terms of psychosocial adjustment (Koenig *et al.*, 2012). In addition, there is evidence that first-generation migrants are healthy and in some cases, healthier than the second generation (McDonald & Kennedy, 2004; McGovern & Cope, 1991). Hays (2009) suggested that lists of culturally related strengths and supports can be generated and used to develop a list of helpful cognitions to replace unhelpful ones (for example, exploring extended family support or religious beliefs). Incorporating these factors into an assessment and formulation of the presenting problems of an individual or family will ensure a much more robust and culturally competent intervention.

Ultimately, the ability of the therapist to enter into the world of the child or family and identify what is 'at stake' and develop a *shared* narrative (Lakes *et al.*, 2006) is crucial for understanding any presenting problems and their resolution. Furthermore, the four key comparative parameters (Falicov, 1995) can assist with a clear analysis of the context of the family. Attention is paid to the wider context beyond the child and immediate family members and full consideration is given to both the ecological context and the organisation of the family system in order to ensure an understanding of both the presenting issues and precipitating factors.

Beyond the therapy room

Whilst frameworks such as those of Hays (2009) and Falicov (1995) are useful for working with individual children and their families, clinicians have a tendency to focus on the interactions and events within the therapy room and not on wider service systems. Sue *et al.* (2009) identified three levels of evaluation of cultural competence: (1) the provider and treatment level; (2) the agency or institutional level; and (3) the systems level (e.g. systems of care in a community). We contend that engaging with BME children and families in a therapeutic relationship must be considered in the broader context of social and political globalisation. Engagement and cultural competence are complex tasks which need to be based on an understanding of global migration and the impact of technological innovation such that children and families can migrate and yet remain in close connection with their cultures of origin through the use of digital, online and internet-based media.

Many therapists who have been brought up and trained in Western cultures have been raised in specific cultural contexts that denote privilege and power, and have limited experience of or exposure to the cultural or social milieu in which many BME children and families live. Yet we talk about 'hard to reach' communities who live less than an hour's journey from where we live, and in the case of BME people, these are often communities who have recently migrated thousands of miles traversing social, cultural, national and political boundaries. Both therapists and clients often live in cultural silos that are defined not just geographically but are maintained by structural inequalities (e.g. housing, schools, employment, etc.) and through the use of technologies such as satellite television, internet channels, mobile phone technology and computer-based social networks. Power dynamics dictate the answer to the question in terms of who decides who is hard to reach – the therapist or the client? It is our contention that it is in fact the therapist (and our services) that are hard to reach as they have emanated from a specific world view that is not necessarily consistent with the beliefs and practices of the majority of cultures in the world. Thus, 'engagement' appears to be addressing issues of social distance as opposed to geographical distance. Our attempts to collaborate with our clients and the children and families that we work with have to be conceived as a process in which there is a responsibility and duty on us as therapists to adjust our positions; engagement has to be a two-way process that requires adjustments by both therapist and client, not just the client.

Therefore, it is important to consider the ways in which our services are structured and the barriers that they may pose to engagement, effectiveness and accessibility for children and families from BME backgrounds. The Building Bridges Service in Liverpool was developed with the explicit aim of maximising engagement and accessibility and was structured accordingly. The service was delivered by staff from a range of health and social care disciplines who had a range of ethnic backgrounds including Chinese, South Asian, African, African Caribbean, White Irish, Black British and White British. The ability to speak a language that was common in the local BME communities was prioritised at recruitment and all funding for the service included a budget for interpreting. The service was located in an area of the city with the highest residence of BME families, and families could refer themselves. The work of Building Bridges was guided by key principles that included prevention and early intervention, holistic provision, addressing parent/carer mental health, community participation and development, capacity building within services and communities, and the provision of counselling and advocacy

(Fatimilehin, 2007). The service used an approach to therapeutic intervention that was non-pathologising and solution-focused with an emphasis on the client's own view of the presenting problems, their existing strengths, and their views of the ways in which change could be effected (George *et al.*, 1999). These service structures and principles were based on both local and national research evidence regarding the provision of accessible and appropriate services for BME children and families. Furthermore, the ongoing development of the service was guided by the involvement of local communities in the planning and development of initiatives. Mechanisms for ensuring true participation included strengths and needs assessments with specific communities (Building Bridges, 2003a) and with children and young people from marginalised groups (Building Bridges, 2003b), as well as a Community Participation Group that was 'twinned' with the Steering Group (Fatimilehin, 2007). In addition, the service had an ongoing programme of work to seek the views of local BME children as well as those who had been referred to the service.

Whilst Building Bridges was funded to provide psychological and mental health services for children and families from all BME groups, some of its programmes aimed to meet the needs of specific groups. For example, the Fathers and Sons Project was implemented as a result of local (and national) research indicating that relationships between fathers and sons in Somali, Yemeni and Black British communities were strained by experiences of migration, discrimination, living between two cultures and cross-generational differences. The project was funded by the Parenting Fund and delivered in partnership with Liverpool Arabic Centre (a voluntary and community organisation). This initiative was aimed at developing intergenerational understanding between fathers and sons and more specifically at promoting dialogue between the generations and maximising family functioning.

Bernal *et al.* (2009) described a cultural adaptation process model as a framework for adapting therapeutic interventions. The model consists of three general phases, the first of which involves the 'change agent' collaborating with a 'community opinion' leader to find a balance between community needs and scientific integrity. The second phase involves the selection of evaluation measures and their adaptation in line with the intervention, and the third phase involves integrating the information gathered in the first two phases into a new intervention. Likewise Davis *et al.* (2012) strongly advocate co-production as a route to cultural adaptation of evidence-based parenting programmes. The Fathers and Sons Project took a number of steps to enhance cultural adaptation. This included working with groups of fathers and sons from the respective communities to plan, develop, implement and evaluate the initiatives which ran for 18 months. In addition, an advisory group consisting of people from a range of statutory, voluntary and community organisations was established. These included Somali, Yemeni and Black British community organisations as well as local CAMHS. Furthermore, the project was delivered and evaluated in partnership with the Research Institute for Health and Social Change at Manchester Metropolitan University using funding from the Urban Regeneration: Making a Difference (UR-MAD) programme.

A narrative and participative approach (White, 2007) was used to generate problems and solutions with groups of fathers and sons, and they were subsequently involved in the development and delivery of initiatives aimed at improving family relationships. The initiatives included parenting programmes for fathers; seminars with social services managers; a magazine about cultural experiences and practices in Somalia and the UK that was developed and produced by Somali sons; and a DVD highlighting common myths about Yemeni and British boys by Yemeni sons.

The importance of adapting interventions for specific cultural groups was underscored in this project by the different approaches that were needed for working with the Somali and Yemeni communities as opposed to the Black British community. For the Black British group, differences in migration histories (families had been in the city for several generations), family structure (a high proportion of single parent households), and racism (the effects of the city's history of involvement in the slave trade, media stereotypes of black men, high rates of unemployment for generations, etc.) were important. Although the presenting problem was similar to that of the Somali and Yemeni groups (i.e. the breakdown of relationships between fathers and sons) the impact of these factors was such that the solutions proposed by fathers and sons in the Black British group differed significantly from those proposed by and acceptable to the Somali and Yemeni groups. A DVD based on four themes that emerged from the research literature (Caldwell *et al.*, 2004) and consultations with fathers and sons (strengthening father–son communication; father–son closeness; father's confidence about age-appropriate expectations; and father involvement) was produced in collaboration with Urbeatz (a community-based Youth and Music Company).

The DVD was subsequently used to generate dialogue between fathers and sons in the community and led to the development of a mentoring project aimed at addressing gaps in young peoples' lives that had been left by the absence of their own fathers. Thus it is clear that the delivery of CBT and other evidence-based approaches to families in these communities has to take account of the specific and general cultural contexts in which they live.

Conclusion

It is clear that incorporating cultural values and beliefs is an essential component of any therapeutic work with black and minority ethnic children and their families. As well as adhering to a process model of working cross-culturally, it is also important to consider using specific approaches adapted for specific cultural groups. However, it is also imperative to address issues of power (Evans *et al.*, 2010) in terms of who decides what interventions are used, how therapists are trained, what is taught, and the focus of the research and evaluation programmes that inform our practice. Hence the importance of participation, involvement and collaboration with service users and the wider community cannot be over-emphasised if services and therapeutic interventions are to be effective and useful to BME people and not harmful to their psychosocial development. These considerations are not just applicable to CBT but relevant to all therapies that were researched and developed for use with one social/ethnic group and implemented with another. Ultimately, the issue is one of morality, ethics and social justice.

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Working with schools and children's wider social environment

Peter Fuggle and Sandra Dunsmuir

Introduction

Cognitive behaviour therapy (CBT) is a framework which examines the relationship between an individual's cognitions, emotions and behaviour within a particular context. The influence of ecological systems on human development (Bronfenbrenner, 1979) is widely acknowledged and it is therefore important to take into account environmental factors and the service context in which CBT is delivered when working with children and their families. In this chapter, we will suggest that schools and other community settings provide appropriate contexts for delivering CBT and propose some guiding principles for integrated, coherent CBT practice across contexts.

Children live within multiple environmental systems. These include their family, school and other systems to which the child is exposed (e.g. local community, church). Within each system are roles, norms and rules which shape development. Family arrangements are varied and idiosyncratic, yet an important common theme is that children's relationships with their parents and siblings have a primary and significant influence on their growth and development (Lamb *et al.*, 1999). There are many economic and societal pressures that have led to changes in family organisation in developed countries, for example those associated with increased maternal employment (Joshi *et al.*, 2009). This has had a direct impact on the amount of time that children spend at home in their early years, with increasing numbers attending day-care provision such as nurseries and children's centres – alternative ecological systems. When children in the UK reach statutory school age at 5, attendance in full-time education is compulsory. The school and educational system also exert a strong influence on social development – positive relationships with teachers and peers, along with parents, are powerful determinants of psychological well-being (Rutter, 1991). Therefore, in cases where children and young people are experiencing psychological distress, schools can be powerful partners with families in supporting interventions such as CBT and contributing to the process of building resilience in vulnerable children (Rutter, 1990; Department for Education, 2011).

Context and formulation

With its roots in social learning theory, CBT places a high priority on understanding the relationship between the environment, individual cognitions, emotions and behaviour. Owing to the dependency of children on others, the impact of the social environment has

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an even greater role in CBT for children than for adults and is a key aspect of case formulation. One of the major challenges for the CBT practitioner working with children is to achieve an understanding of the multiple social environments in a child's life. Traditionally, therapeutic services have been provided from a clinic base. However, clinics generally are outside the child's normal context and are unfamiliar settings to the child and family. This may affect parents' capacity to communicate the nature of their child's problems or their worries about them. The unfamiliarity may inhibit a child's confidence and self-expression so that typical interactions and behaviours are reduced. Some parents may be anxious that the child's difficulties are less apparent in a clinic setting, while others may experience unfamiliar settings as neutral and safe and feel less inhibited in communicating their private concerns there. In contrast, working with children and parents in environments that are part of the child's life may provide the therapist with a clearer understanding of the contextual factors that are maintaining the child's problems. Working in a school setting, it is likely that the CBT practitioner will have easier access to information about the child's learning and peer relationships, and will be able to use this to develop a richer formulation of the problem over time. Similarly, delivering CBT in a home setting is likely to heighten the therapist's awareness of factors that have contributed to the onset and maintenance of the problem, often in a very powerful way. For example, observation of the way that parents exercise authority within the home is unlikely to be disguised as can be the case when the therapist is reliant on parental reports of the child's behaviour during a clinic interview. In this way, the home environment will provide the therapist with immediate and pertinent information about family relationships and behaviour that may enhance the relevance and accuracy of the formulation. It can be seen therefore that delivering CBT in a school or home context creates the potential for therapists to engage more easily with other key adults in the child's life, undertake systemic assessment and formulation, and more reliably identify factors that are maintaining the child's problems. High quality assessment and formulation are crucial in order to develop intervention plans that are perceived by clients to be relevant, feasible and sensitive to context.

Accessing therapeutic support

Cognitive behaviour therapy needs to be delivered in such a way as to reduce the obstacles to receiving help. In an important study, Kazdin *et al.* (1997) investigated the barriers to engaging with treatment for families who were offered therapy in clinic settings in the USA, identifying several practical obstacles to attendance. These included the length of journey to the clinic, inconvenient appointment times, the need to arrange alternative childcare and the financial costs of attendance. Other factors that led to non-engagement or withdrawal from therapy included poor relationships with therapists, the therapy being too demanding, and the intervention being perceived as irrelevant to the problem. All of these factors were related to poorer outcomes, independently of social disadvantage. This suggests that offering CBT in settings that are more familiar and accessible to families may increase the likelihood that appropriate interventions are delivered to those that need them most, leading to improved outcomes for children with mental health needs.

It has been estimated that up to 20% of young people experience significant distress at some point during their school careers and a proportion of these require professional help (Department of Health, 1995; Mental Health Foundation, 1999). Citing the Office

for National Statistics, Young Minds reports that at secondary school age, 11.2% of young people are affected by significant mental health problems at any one time. However, the majority will not receive help in specialist mental health settings. Atkinson and Hornby (2002) argue that in order to widen access to appropriate interventions such as CBT, children's 'needs have to be addressed by mainstream institutions, such as schools' (p. 3). Children who experience mental health difficulties will exhibit signs of distress across different contexts in their lives. Their problems may be manifest in school as well as at home and there is evidence that parents are most likely to consult teachers about their child's emotional difficulties (Atkinson & Hornby, 2002; Department for Education, 2011). Because schools are very often located within physical proximity to the child's home and relationships already exist between school staff, children and their families, with adequate resourcing, it may be appropriate and convenient for CBT to be delivered in schools.

Cognitive behaviour therapy can also be delivered in children's homes, and for some families and types of problem (e.g. social phobia, school refusal), this may be an appropriate context for the therapist to work. Although there are obvious advantages, delivering CBT in this context can present challenges for the therapist working in a setting in which he or she is in the role of guest. Common problems include high levels of distraction (on-going TV, computer games, mobile phones, neighbours etc.) which can militate against the maintenance of a clear sense of direction and focus in the session. It is often necessary for the therapist to discuss explicit expectations about the conditions required for the session to be conducted. Also, CBT delivered at home may not be perceived by the young person as contained, confidential or safe. It is important that feedback is regularly sought about such issues and the young person's preferences taken into account when planning where therapy will take place.

Some adolescents may be reluctant to attend CBT in the clinic, home or school setting. These young people may be socially excluded, with multiple difficulties and are often described as 'hard to reach'. They may have problems which include risky behaviour both to self and others and therefore any CBT practice outside of usual settings needs to be delivered by CBT practitioners who are working within teams or services in which risk management protocols are firmly established. We are not advocating CBT being delivered by isolated practitioners in settings where they are exposed to risk, but do consider that CBT may have a contribution to make when working with young people with complex problems who do not access mainstream forms of help. There are many examples of highly imaginative youth projects working with young people who may be homeless or with multiple social difficulties where staff are particularly skilled in working with this client group. There is often a need to start without assuming the client will be able to make use of an appointment-based intervention but may start by initiating contact through text messages or telephone, as part of a process of graded exposure to therapy itself. This may progress to contacts in public spaces and venues and the initial focus will aim to build the therapeutic relationship and work with the young person's beliefs, both positive and negative, about receiving help. Motivational interviewing (Miller & Rollnick, 2002) may be an important aspect of this initial phase of work. For service providers working with 'hard to reach' young people, the aim would be to work towards eventually seeing individuals in more mainstream settings. Variants of this approach may be adopted by outreach teams working with young people in which alcohol or substance misuse may be one part of a multiple problem presentation.

Cognitive behaviour therapy in schools

Schools have an important role in identifying and supporting children and young people experiencing psychological distress. Ofsted (2005) noted that the best schools promoted good emotional health and well-being by valuing and respecting every child. However, few schools used national guidance (Department for Education and Employment, 2001) to plan and provide support for pupils' emotional well-being and training for staff in this area was unsatisfactory in just over a third of the schools visited. Similarly, the Child and Adolescent Mental Health Services (CAMHS) Review (2008) noted significant variations in the approach and attitudes of schools to children's mental health. It concluded that there was too much disparity between schools in the degree of responsibility they took in the identification and understanding of the difficulties experienced by children and young people. Furthermore, there were notable differences in the quality of support provided, both with individual pupils and also in terms of positive partnerships that had been established between schools and families. Variations in the degree of home-school cooperation were also noted to be relevant, as effective interventions with young people experiencing mental health difficulties usually involve family members and school staff in some way (Kazdin *et al.*, 1990). Teachers need to have the awareness to spot the early signs of mental health difficulties and their precipitating factors. Baxter (1999) noted however that teachers do not always identify children at risk. The need to raise awareness of mental health issues in schools, improve early identification and build expertise in delivering evidence-based interventions was addressed within the Targeted Mental Health in Schools initiative (Department of Children, Schools and Families, 2008). Voluntary organisations such as YoungMinds (2009) also share these aspirations and have been influential in bringing these issues into public and government awareness. Thus, there is a widely acknowledged need to build capacity within schools to deliver evidence-based mental health interventions such as CBT and make decisions about referral to specialist services where relevant (Frederickson *et al.*, 2009).

Teachers have considerable knowledge about children's learning and about developmentally appropriate methods to stimulate and engage them. Interactions between teacher and children are important for emotional growth and learning (Greenhalgh, 1994). Cognitive behaviour therapy with children has the advantage of being consistent with theories and principles of learning (Kendall, 2006) and the mechanisms of change (e.g. increased understanding, explicit goals, a curriculum plan, rehearsal and practice) that are congruent with best educational practices (Mennuti *et al.*, 2006). However, schools can be challenging places to attempt to deliver services that address social and emotional aspects of learning. Pressures on teachers to deliver defined curricula and educational standards whilst managing large groups of young people of varying abilities and enthusiasm can detract from a focus on individual psychological needs. Teachers may have hidden agendas (e.g. removal of troublesome young people from the classroom) which may distort referral patterns to specialist services. For this reason, referral systems need to ensure that children with difficulties such as anxiety and depression, who may benefit from CBT (Fonagy *et al.*, 2002) but are well-behaved and performing adequately academically, are identified and brought to the attention of relevant services. The national evaluation of the Targeted Mental Health in Schools (TaMHS) programme (Department for Education, 2011) indicated that there was great variation between schools with regard to the implementation of mental health interventions. There is a growing body of research indicating that a positive

school climate (strong leadership, quality of relationships, psychological atmosphere) is important in mental health preventative efforts (Najaka *et al.*, 2002). There are a number of enabling and limiting factors within schools that should be taken into account by mental health professionals delivering services in this context (Suldo *et al.*, 2010). Factors that militate against successful work in schools include problems with space and scheduling; problems with consistent treatment of pupils; problems with school personnel (e.g. lack of senior management support, teachers unaware of mental health issues); insufficient training; lack of support from department/local authority administration; unmanageable case-loads; and challenging pupil factors (e.g. limited parental support). Enabling conditions identified by Suldo *et al.* (2010) include high levels of support from school staff, integration of therapists into the school community, the therapist's degree of competence and their ability to maintain personal and professional boundaries. Where resources are limited, it is therefore important for CBT practitioners to evaluate school settings and identify whether the context is likely to support successful delivery of therapeutic interventions.

Levels of service delivery

Although traditionally conceptualised CBT is delivered on an individual basis, there is a growing consensus that a tiered model of service delivery is an efficient and cost-effective way of organising and rationalising access to finite resources. A tiered model of intervention is illustrated in Figure 9.1, which draws on frameworks proposed in the UK (Department for Education and Skills, 2004, 2005), the USA (Christner *et al.*, 2007; Jimerson *et al.*, 2007) and Australia (Sanders *et al.*, 2004).

The three tiers shown in Figure 9.1 represent different levels of intervention intensity. Universal interventions are available to all at-risk children and young people. Identification is normally through a recognised screening process and the intervention can be delivered at class level or within groups. If the child does not respond to the intervention within an

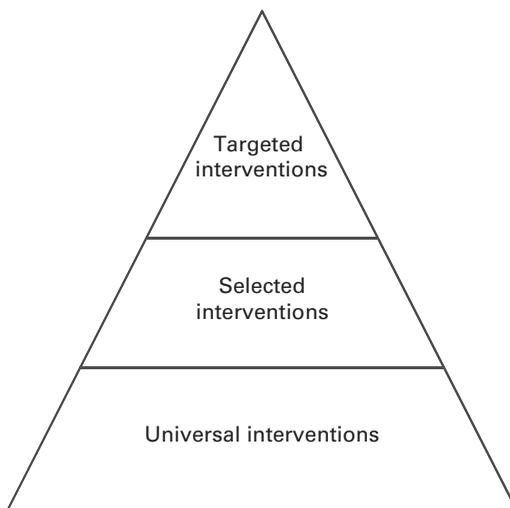


Figure 9.1 Tiers of intervention: the relationship between universal provision, selected interventions and targeted, individualised support.

identified period (e.g. 6–8 weeks), he or she will move to the next level and receive a selected intervention, for a longer period at a greater level of intensity. Selected interventions are frequently delivered to small groups of children. Progress is closely monitored and if it is adequate, then the intervention is judged to have been successful. If on the other hand, the child does not respond adequately to the selected intervention, then a third level of more intensive support is considered. At the targeted level, mainly individualised intervention approaches are implemented.

An example of a national school-based initiative in the UK addresses the social and emotional aspects of learning (SEAL; Department for Education and Skills, 2005, 2006). SEAL was designed to be delivered at all three levels – universal (whole school level) to create a climate and ethos for promotion of positive, healthy social and emotional skills; selected (group-based interventions) for children considered to benefit from additional support; and targeted, intensive, individually delivered interventions for the small number of children who have not benefited from small-group support and are either at risk of or are already experiencing mental health problems. The published resources are conceptually underpinned by cognitive behavioural principles, and the materials focus on areas such as improving self-awareness, managing feelings, motivation, empathy and social skills.

Group cognitive behaviour therapy interventions

Group CBT can be used to meet the needs of pupils considered to benefit from selected (and occasionally targeted) interventions. Due to increasing demand and the shortage of experienced CBT practitioners, there has been growing interest in delivering CBT to groups of children in schools. Freeman *et al.* (2004) argue that group CBT can supplement individual CBT and in some cases provide an alternative approach and Stewart *et al.* (2007) point to the advantages for both service providers and users. These include the more efficient, timely delivery of interventions and reduction of waiting times for individual treatment. Delivery of CBT interventions to groups of pupils provides practitioners with opportunities to observe social interactions and obtain valuable assessment information, to undertake collaborative problem solving that takes account of peer perspectives and feedback, to test new knowledge and understandings and practice emergent skills in a safe and secure setting. Group CBT can also provide opportunities to 'normalise' aspects of the problem. Within schools, group-based approaches to delivering aspects of the academic curriculum are widespread. The SEAL initiative recommended group approaches for children in need of more intensive support with social and emotional skills. The evaluation conducted by Lendrum *et al.* (2009) highlighted the factors that can influence successful implementation of group-based interventions in schools. These include delivery by competent, experienced and appropriately trained adults, both in terms of group facilitation skills and knowledge and understanding of the intervention. These factors were apparent in schools demonstrating 'best practice' and were positively related to better pupil outcomes (Humphrey *et al.*, 2008). Ideally, group size should be between 5 and 8 (Jacobs *et al.*, 2008), and pupil selection processes need to ensure a balanced group composition to avoid the risk of exposure to negative models of thinking and functioning. The use of questionnaires and other instruments as part of the process of group selection (e.g. using appropriate cut-off scores on measures that are congruent with the intervention) may help to ensure that individuals put forward to receive group CBT are appropriately identified (Dunsmuir & Fuggle, 2009).

There are increasing numbers of studies that have evaluated the effectiveness of CBT delivered to groups that have demonstrated positive outcomes for presenting problems such as anxiety (Manassis *et al.*, 2002; Silverman *et al.*, 1999). For example, the 'FRIENDS for Life' programme was developed for children with diagnosable anxiety disorders in Australia (Kendall, 1994; Kendall, *et al.*, 1997) and is an example of a CBT intervention that can be implemented with groups of children in educational and clinical settings. It comprises a structured, ten-session programme aimed at stimulating cognitive reappraisal and change in anxious children. Other manualised group CBT interventions have targeted depression. The Resourceful Adolescent Programme (RAP; Shochet *et al.*, 2001) is a CBT programme for groups of 8–12 young people, that aims to identify personal strengths, improve emotional recognition and regulation, increase helpful thinking and problem solving, and build support networks. Although some researchers have reported programme effectiveness in terms of symptom reduction (Shochet & Hoge, 2009), other studies have found no reduction in symptoms of depression following delivery of RAP to universal populations in schools (Stallard *et al.*, 2012). However, other evaluation studies have reported positive outcomes for group CBT interventions delivered to groups of individuals at risk of depression (e.g. Shirk *et al.*, 2009).

Another area where group CBT appears promising is in social skills training in schools. Psychological well-being and self-esteem are enhanced by the breadth and quality of social relationships (Baumeister *et al.*, 2003) and prosocial behaviours such as being empathic and sympathetic to peers, sharing, volunteering and being altruistic increase the likelihood of group acceptance (Bateman & Church, 2008). There is evidence that young people can be taught key social behaviours and interpersonal problem-solving skills to improve functioning in social situations (Spence, 2003). The methods used are elements of many group CBT interventions and include modelling, direct instruction, behavioural rehearsal, cognitive restructuring, self- and emotional regulation methods, contingency management and the provision of feedback and reinforcement. It is important to note that most social behaviour that causes concern represents an established pattern of responding in situations where the reaction of others (family members, teachers, peers) is likely to be maintaining the problem within a circular chain of influence and causality. Therefore group CBT addressing the development of social skills should also address entrenched relational patterns through systemic intervention.

Individual cognitive behaviour therapy interventions

Individual interventions are likely to be needed for more severe difficulties and particularly for young people with comorbid presentations. Within educational settings, the provision of an intervention requiring between six and 16 sessions of professional time indicates that this is a specialist service for a pupil with a high level of need, who has not responded to universal and selected intervention approaches. Pupils with mental health problems may also exhibit difficulties with academic aspects of the curriculum (e.g. literacy difficulties, test performance etc.). However, there are very few studies that address both mental health *and* academic outcomes, which is surprising given that schools are accountable for both areas (Hoagwood *et al.*, 2007). There is evidence of a reciprocal relationship between pupils' academic functioning and psychological well-being (Zins *et al.*, 2004) and there is therefore a need for schools to recognise that the delivery of evidence-based psychological interventions for pupils may impact positively on educational objectives, although the data to support this claim are modest (Hoagwood *et al.*, 2007).

Guiding principles for integrated, coherent cognitive behaviour therapy practice across contexts

Cognitive behaviour therapy with children and young people provides a framework to assist understanding of psychological difficulties that takes into account the relationship of thoughts, feelings, behaviours and bodily reactions in the context of environment influences and developmental processes. In contrast to CBT working with adults, CBT with young people requires the integration of three strands of knowledge namely:

1. Child and adolescent psychosocial development.
2. The family life cycle and functioning.
3. Schools and processes of formal learning.

One of the most striking themes from the research into interventions across the domains in a child's life is that 'structuring and mobilising *multiple* forces that influence a child's functioning holds the most promise for producing improved outcomes. The components of competence (or of problems) are linked and a co-ordinated linking of resources and actions must occur for optimal outcomes to be produced' (Kratochwill & Stoiber, 2000, p. 352). Thus, it is important to ensure that CBT assessment, formulation and intervention incorporate multiple perspectives and influences in the child's life. The integration of these strands of knowledge requires a method of case conceptualisation that incorporates both developmental and environmental factors.

One difficulty with delivering CBT when the intervention agents are diverse (e.g. parents, teachers, peers, therapists) is that there will be a greater challenge to ensure consistency and fidelity of implementation (Kratochwill & Pittman, 2002). The complexity of interacting variables and potential mediating influences will be greater and more difficult to control when evaluating systemic CBT interventions.

Case conceptualisation as the bridge between systems

Systemic practice seeks to explore the reciprocal interactions between individuals and their environment and in this way, explore the relationship between context and meaning (Cronen & Lang, 1994). As discussed, children and young people live within social contexts (home, school, community) and their ability to infer the social intentions of others, their knowledge of social skills and strategies and motivation to engage in positive, reciprocal social interactions, underpins social competence. These factors in turn influence the social reactions of others, both within children's families and at school, suggesting that CBT interventions need to focus on systemic as well as individual cognitive case conceptualisations or formulations. A number of writers (e.g. Drinkwater, 2005; Kuyken *et al.*, 2009; Murphy & Christner, 2006) recognise the need to accommodate internal cognitive processes, developmental mechanisms and environmental systems within formulations. However, this presents a major challenge to avoid the formulation becoming unhelpfully complicated and difficult for the client to understand and interpret. This dilemma is clearly articulated by Murphy and Christner (2006) who also propose that formulations are likely to be more useful to young people if they convey simple, clear ideas about how a problem has come about. What remains elusive is an overarching, consistently applied formulation framework for children that achieves both comprehensiveness and parsimony.

To be useful therefore, the formulation will need to be interpretable to the young person and offer a plausible explanatory framework to assist understanding their problem. The associated systemic approach to intervention will ‘involve identifying and recognising the different perspectives held by different groups and individuals in a situation and developing plans for improvement, usually involving interrelated action at a number of levels that can be supported by all involved’ (Frederickson & Cline, 2009, p. 424).

Developing a formulation that can be shared with different people may prove to be a time-consuming task which requires coordination of different respective inputs and understandings about *why* the problem is occurring. However such an endeavour is entirely consistent with CBT as a formulation-based intervention. Using diagrammatic versions of maintenance or onset formulations that have been developed with the child and parent may provide a useful mechanism for drawing out differences and similarities between the views of key professionals such as teachers and support workers in relation to the child’s difficulties. (See also Chapter 6 for a fuller discussion of formulation.)

Collaborative practice

Active collaboration between the therapist and the adults in a child’s life is central to the delivery of effective CBT. The development of positive relationships that will assist the process of collaborative action planning will be enhanced if the following practice points are taken into account when working with parents and teachers.

Information sharing

For individual CBT, information sharing is an important aspect of practice in that it often involves the need for explicit agreements about how information will be shared between children and other people (such as their parents and teachers). Most parents and young people are supportive of such collaboration but, for a minority, it will raise some anxieties (e.g. will this go on my child’s education record?) that are important to address at the beginning. Cognitive behaviour therapy practitioners may need to grapple with complex issues of information sharing in the context of child protection but also with respect to boundaries of confidentiality (British Psychological Society, 2006), considering carefully the need to obtain explicit permission from the child to share information with others. For parents, disclosing highly personal aspects of family history that may be linked to the child’s difficulty (e.g. domestic violence), may be constrained by the anxiety that such information could become widely known within the school (or beyond). Alternatively, due to therapeutic confidentiality, the fact that the therapist may not be in the position to share information about children with their teachers may create tensions if expectations are not managed carefully by the therapist at the outset. There is therefore a need for CBT practitioners working in non-clinic settings to be able to adopt a clearly defined, disciplined approach to information sharing and ensure that ethical issues of consent and confidentiality are carefully explained and observed.

Teachers’ perceptions of the problem

Teachers may be able to provide invaluable insights in relation to a child’s psychological functioning. They can provide information about how a young person functions in response to formal learning and how they perform in a group setting. This can be central to the therapist’s

formulation of the young person's difficulties but there may be other areas of the child's life (e.g. family relationships) where a teacher's perspective may need to be corroborated by checking information from other sources. Internalising disorders can be easily overlooked by teachers and other school staff as they are not always apparent through external observation (Abidin & Robinson, 2002; Percy *et al.*, 1993). Although teachers are not very accurate in identifying specific mental health concerns, they are important to the success of interventions in schools. Therefore, teacher involvement in the identification process can help to ensure ownership, their perceptions can contribute to the assessment process and this involvement can in turn secure their participation and collaboration in supporting CBT interventions.

Realistic demands on the teacher

Many psychological problems which children experience either arise directly from school or have implications for school life, such as social phobia or depression. The CBT practitioner may see the teacher or head of year as an important resource in trying to support behavioural experiments or facilitating positive peer relationships or other components of the intervention plan. Suggestions for involving the teacher in monitoring a young person's progress or providing daily positive feedback may make sense to the CBT practitioner from the perspective of the individual child's needs but may be unrealistic in relation to the teacher's wider responsibilities to large groups of children. The CBT practitioner needs to acknowledge this problem explicitly and consider carefully how any requests for a teacher's contribution to an intervention plan can be made time efficient, feasible, manageable and consistent with their wider responsibilities (Patton *et al.*, 2000). In terms of engaging teachers, it is important that they consider that the CBT intervention is appropriate and believe that it is likely to produce meaningful change in the child (Finn & Sladeczek, 2001).

Simple feedback arrangements

For both parents and teachers it can be helpful to have ongoing feedback about the child's behaviour and experience in school and at home. It is very easy for such arrangements to become overly complicated and demanding (e.g. a weekly monitoring sheet which requires too much time of the teacher) and rapidly falls into abeyance. The skill is to involve teachers and parents in collaborative action planning and gain their commitment to implement the agreed actions with regularity and fidelity. If there is resistance, persuasion may be necessary (O'Keefe & Medway, 1997). Simple, efficient methods are more likely to be acceptable (e.g. schools sending short text messages to the child's parent at the end of each week to provide an update on progress). Parents and teachers may report that they feel 'in the dark' about what is happening in the therapy and by implication may feel somewhat undermined or threatened. The essence of building home-school trust is through high quality, regular communication (Dunsmuir *et al.*, 2004). In general, reaching agreement about clear and explicit actions with the young person, their parents and teacher, will reduce the potential for therapy to become positioned as something special, obscure and disconnected from mainstream life.

Supporting the relationship of child and teacher

Some children put forward for CBT may evoke strong feelings in the adults in their lives. These can range from general concerns, to high levels of anxiety, as well as feelings of frustration or anger. Such feelings may be amplified in situations in which adults find it

hard to make sense of a child's behaviour, such as when support is offered and the child rejects it. Although the therapist may have hypotheses about the factors generating and maintaining such difficulties, it may be valuable to start by recognising with the teacher how difficult it is to make sense of the way the child is behaving and feeling and invite her to elaborate her thoughts about what may be causing the difficulty. Teachers are likely to feel that they know their children much better than the therapist with the result that an external 'expert' viewpoint has the potential to be irritating and readily repudiated. Overall the therapist's task is to support the teacher's relationship with the child by developing a shared understanding of the child's difficulties.

Clear communication arrangements

It is important that therapists establish how regular communication will occur with all involved parties at the start of the CBT intervention. Ideally this will be through face-to-face contact and time needs to be protected for this. Alternatively, regular contact can be maintained by telephone or e-mail. Establishing clear, open channels of communication is important for a number of reasons. For example, it contributes to the development of positive relationships and trust between the therapist and the adults in the child's life and there are indications that good-quality relationships are associated with better outcomes (Gutkin & Curtis, 1999). Regular contact fosters involvement and collaboration and guards against individuals feeling excluded and threatened. In addition, it helps to maintain consistency and fidelity of action in terms of supporting the intervention plan. Regular communication enables the therapist to monitor implementation of between-session elements of the intervention (e.g. behavioural experiments, data collection) and develop plans to overcome foreseeable obstacles in the future in the light of feedback. It also helps to ensure that there is clear delineation and understanding of roles, responsibilities and expectations and renegotiate these in the event of differential understandings.

Knowledge about school systems

In the UK, CBT practitioners come from a range of professional backgrounds (e.g. clinical psychology, educational psychology, nursing, social work) and are usually visiting professionals to schools and not part of the established staffing. A smaller group of CBT practitioners may be directly employed by schools (e.g. counsellors, teachers) and therefore already part of the system. For external visiting professionals, there is a need to ensure that CBT practice does not become isolated, but takes account of existing processes and practices within the host school. It is important to spend time on general orientation activities to find out about:

- School structures such as staff hierarchy, internal departmental organisation and physical layout.
- Accountabilities and responsibility for planning and decision making.
- Channels of communication.
- Referral systems and routes.
- Policies (e.g. bullying, behaviour, mentoring, supervision).
- Politics (commodities of power): identification of individuals with influence, with a strong interest and record of success in supporting vulnerable young people; the 'healthy parts of the system' (Georgiades & Phillimore, 1975).
- Available resources that can be drawn on to support the CBT intervention e.g. books, equipment, staffing (e.g. teaching assistant time), space.

Issues and dilemmas delivering cognitive behaviour therapy in schools and children's wider social environment

Requests for CBT with individual children can come from a range of sources (parents, schools, GPs). Children and young people seldom put themselves forward and may not perceive a problem, may locate the problem externally, or may be uninterested or unmotivated to change. On this basis it is important to question whether CBT is the most appropriate intervention, or whether work with the school or family may be more effective than work with the individual child. There should also be consideration of other approaches that have been tried and whether the child has received appropriate support at lower tiers of intervention (universal and selected). It is important that there is a clear rationale for involvement and also that the child is committed to search for solutions which may require them to make changes. Without this, it will not be possible to develop a collaborative therapeutic alliance and support a process of positive change.

At times, the CBT practitioner may be put in a position where they are involved in the decision about whether CBT is a suitable intervention. Working in schools may expose therapists to systemic pressures to provide therapeutic input, regardless of the evidence base, and the requirements of the individual case. It may be difficult to be clear about whether the case is suitable for CBT. We recommend that the following criteria be taken into account when negotiating and prioritising CBT casework and reaching decisions about whether another intervention may be more suitable:

1. That the child has the necessary language, cognitive, attention and memory skills to engage in the process.
2. That the perceived problem (for example, anxiety, depression, non-compliance) is having a significant impact on the child's capacity to lead a normal life. This may include difficulties experienced living in their family; it may relate to aspects of their life in school or in other settings.
3. That the child has expressed a wish to improve their life in some way. If the child is at an early stage of initiating change, CBT may still be appropriate but following initial work using other, related methods e.g. motivational interviewing (Miller & Rollnick, 2002).
4. That either the referrer or the young person/parent considers that this improvement might take place if the client did (or thought or felt) things differently.
5. That there is a reasonable expectation that the young person, parent or teacher will be willing and able to attend/be available for appointments.

One of the challenges of delivering effective CBT in school is that it usually involves a collaboration between 'insiders' (school staff) and 'outsiders' (parents and other visiting professionals). Traditionally, mental health professionals have been part of this 'outsider' group and some of the difficulties of delivering effective CBT in a clinic setting may have been exacerbated by schools seeing the therapy as disconnected from everyday life. Some of these dilemmas may be partly addressed by having CBT delivered by practitioners working in schools who are seen as part of the school staff team. However, it is likely that other challenges may be exacerbated by the therapist becoming *within* the child's social environment. For such practitioners, the challenges of shared formulation, agreed ownership of goals, careful information sharing, balanced school-home arrangements and effective liaison with external involved agencies remain prominent. Despite these cautions, increasing availability of CBT interventions in school settings will

improve access and ensure that a greater proportion of children in distress receive an appropriate form of help.

Summary and conclusions

There is growing acknowledgement that CBT for children can be delivered from beyond a clinic base and that there are opportunities and challenges presented in any context. Suitable settings will support practice, increase access and respect user choices and concerns. In order to consolidate high-quality CBT practice in school settings, therapists need to have a particular set of competences. In addition to knowledge, understanding and proficiency in CBT, competent therapists need to adapt practice to take account of the developmental levels of the child; to develop a thorough knowledge of how schools function and understand how additional help for a child can be mobilised within a school setting. They also need to be able to contextualise CBT within the complex systems around an individual child. It is important that CBT practitioners have knowledge of referral pathways to other specialist services such as Educational Psychology and CAMHS and receive supervision to guide decision making. The incorporation of systemic factors into CBT assessment, case formulation and intervention is therefore an essential element in CBT with children. Effective systems work can improve professional awareness and capability in identification of children who will benefit from interventions at a range of levels (universal, selected and targeted) and increase the likelihood that those who will most benefit from CBT receive timely support in a setting that is favoured and accessible.

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Section 4

Cognitive approaches to children facing adversity

Trauma-focused cognitive behaviour therapy for child sexual abuse

Judith A. Cohen, Laura K. Murray and Anthony P. Mannarino

Introduction

Child sexual abuse is defined here as the use of power (emotional, physical or psychological) to engage a child or adolescent in behaviour involving touching or looking at sexual body parts that is age inappropriate, uncomfortable, or against their will.¹ Sexual abuse is one of the most common childhood traumas: one of four females and one of six males experience sexual abuse by the age of 18 (Centers for Disease Control and Prevention, 2005). Without effective treatment child sexual abuse can lead to a variety of severe and lifelong negative outcomes. Early identification and provision of effective and timely treatment to children and adolescents who experience sexual abuse are therefore of high importance to alleviate individual suffering and improve public health. This chapter describes the most studied and widely used evidence-based treatment for child sexual abuse, Trauma-focused cognitive behaviour therapy (TF-CBT).

The impact of child sexual abuse

Sexual abuse is associated with serious long-term adverse outcomes. These include post-traumatic stress disorder (PTSD), depression, substance abuse, suicide, increased rates of multiple medical problems, relationship difficulties and future sexual assault; increased use of healthcare, and most seriously, early death (Felitti *et al.*, 1998; Nelson *et al.*, 2002). Identifying children who experience sexual abuse and providing early treatment are critical steps to preventing these negative outcomes.

In addition to the above long-term adverse effects, children often develop problems soon after experiencing sexual abuse. These include PTSD as well as affective problems (e.g. depression, anxiety, anger or affective dysregulation), behavioural dysregulation (e.g. sexualised behaviour or externalised behaviour problems); difficulties with cognition (e.g. maladaptive cognitions or psychotic symptoms); and social or school problems (Cohen *et al.*, 2006a).

Many aspects about each child's sexual abuse experiences are personal and unique. However some commonalities across child sexual abuse experiences are useful to consider

¹ The terms 'children', 'child' and 'childhood' in this chapter refer to children and adolescents. These terms are used for brevity rather than to imply that developmental level is irrelevant to sexual abuse impact or implementation of treatment. The term 'parent' is used in this chapter to describe the child's primary caregiver adult, any of whom may participate in TF-CBT treatment.

when making sense of the diverse problems experienced by these children and in designing treatment strategies. These commonalities include the following.

Generalising trauma reminders

When children initially experience sexual abuse they have strong emotional reactions (e.g. fear, shock or anger); physical responses (e.g. nausea or physical pain); and/or behavioural responses (e.g. fight, escape or freeze). In this scenario sexual abuse serves as an *unconditioned stimulus* and the child's reactions serve as *unconditioned responses*. The child may associate inherently innocuous stimuli that are present during the sexual abuse with the sexual abuse experience. Once these *trauma reminders* become associated with the sexual abuse, they become *conditioned stimuli* and elicit *conditioned responses* (e.g. anger; nausea; fighting) that the child experienced at the time of the initial abuse. Trauma reminders may generalise to similar stimuli in the child's environment, leading the child to develop conditioned responses that become overly generalised and maladaptive. An example is a child who was initially sexually abused in the bathroom of her home who then became fearful and wanted to escape whenever she went to the bathroom. This response generalised to other bathrooms, and when the girl used the school bathroom she felt the need to flee from school. She became truant from school and was suspended. In PTSD, children *re-experience* trauma reminders, often including those that are overly generalised; in response children develop *avoidance* of these reminders (e.g. people, places, situations, conversations, etc. that remind them of the original trauma) and physiological *hyperarousal*.

Grooming

Perpetrators often train ('groom') children to accept sexually abusive behaviours without protest or disclosure through a process of gradually desensitising children to normal (learned or inherent) discomfort, fear or revulsion to inappropriate activities. Through this process the perpetrator both minimises the likelihood of the child protesting or disclosing the abusive behaviour; and increases the likelihood that the child will believe he or she was partly responsible for the abuse (described under maladaptive cognitions, below). For example, an uncle singled out one niece with whom he spent extra time, buying her gifts and taking her to special places. The niece at first felt guilty for this special treatment but she also enjoyed it. The uncle then invited his niece to watch movies at his house and gradually progressed from cuddling on the couch, to giving his niece back rubs, to nude massages, and finally, to sexual intercourse.

Developing maladaptive cognitions

Children who experience sexual abuse often develop maladaptive cognitions (inaccurate or unhelpful thoughts) related to these experiences. These may include beliefs related to responsibility for the abuse; permanent change related to sexual abuse; and/or about relationships or trust. Children who experience sexual abuse also frequently experience shame (belief that something is inherently bad about oneself; Feiring *et al.*, 1998), often due to the common yet erroneous association of sexual abuse with healthy sexuality. The forensic process that follows most child sexual abuse disclosures often places children who disclose in the unique position of having to convince others both of their truthfulness and that they were victimised rather than 'being sexual'.

Often perpetrators reinforce children's beliefs about being responsible for the sexual abuse. In the grooming example above, the uncle perpetrator told his niece that she 'wanted' the sexual abuse and that she 'liked it' as much as he did. He also told his niece that if she hadn't wanted him to initiate the sexual abuse she wouldn't have allowed him to give her back rubs or undress her and that if she disclosed the abuse, her parents would believe that she 'wanted him to have sex with her'. The niece believed everything her uncle said. She delayed disclosure because she was afraid her parents would blame her for the sexual abuse. Some of her maladaptive cognitions included 'It's my fault', 'I encouraged it', and 'My parents will not believe me and won't love me if they find out'. Not surprisingly, maladaptive cognitions are often a result of the many challenges that sexually abused children face during the abusive episodes as well as during the disclosure and investigative processes.

Learning inappropriate behaviours

Children who experience sexual abuse receive positive reinforcement from the perpetrator for engaging in inappropriate behaviours. The most obvious example is sexualised behaviours: sexual abuse perpetrators model age-inappropriate sexual behaviours and reinforce the child for tolerating and/or engaging in these behaviours. As a result some sexually abused children learn that these behaviours are rewarded, and they exhibit sexually inappropriate behaviours in other settings. Perpetrators also model lying to parents (e.g. keeping secrets) and often, a variety of other inappropriate behaviours such as physical abuse or bullying which the child may emulate.

Predictors of symptoms in sexually abused children

Some children are more vulnerable to developing symptoms than others after experiencing sexual abuse. It is useful to examine the factors that predict symptom formation and symptom resolution as these factors may be used to design treatment interventions.

Moderators are factors which existed before the sexual abuse occurred and which cannot be modified by treatment. Some moderators (e.g. genetic polymorphism; age) predict symptom formation following sexual abuse, but since these cannot be modified by treatment interventions they are of less relevance here.

Mediators are factors that can be modified by treatment. These factors are of considerable interest to treatment developers since they are potential targets of treatment intervention. If a mediator is successfully addressed during treatment, by definition the symptom it mediates will improve. Significant mediators of symptoms in sexually abused children include children's abuse-related cognitions (Cohen & Mannarino, 2000; Mannarino *et al.*, 1994), children's shame (Feiring *et al.*, 1998), parental emotional distress related to the child's sexual abuse; and parental support of the child (Cohen & Mannarino, 1996b; Mannarino & Cohen, 1996).

Trauma-focused cognitive behaviour therapy: general concepts

Trauma-focused cognitive behaviour therapy (Cohen *et al.*, 2006a; www.musc.edu/tfcbt) has been developed during the past 30 years through rigorous and programmatic research to (1) identify diverse symptoms exhibited by sexually abused children, (2) identify mediators of symptom formation in these children, and (3) develop and test effective

Table 10.1 Trauma-focused cognitive behaviour therapy PRACTICE components.

P:	Psychoeducation/ Parenting component and skills
R:	Relaxation skills
A:	Affective modulation skills
C:	Cognitive coping skills
T:	Trauma narrative and processing
I:	In vivo mastery of trauma reminders
C:	Conjoint child–parent sessions
E:	Enhancing safety and future developmental trajectory

interventions to target these symptoms, both directly and via the identified mediator mechanisms. The resultant model is comprised of progressive components summarised by the acronym ‘PRACTICE’ (Table 10.1). These components are provided to children and parents in parallel sessions, with several conjoint child–parent sessions also included in the model.

Assessment

Before making the decision to provide any treatment, therapists must perform a thorough assessment. Among other questions, assessment should address (1) whether sexual abuse is a relevant focus of treatment; (2) whether other traumas have also occurred and if so, whether these should also be a focus of TF-CBT treatment; (3) if TF-CBT is appropriate, what specific emotional and/or behavioural symptoms are most relevant to address during treatment. Since multiple trauma exposure is common among sexually abused children (Cohen *et al.*, 2004) therapists should inquire about exposure to traumas other than sexual abuse; screening instruments include, for example, the Traumatic Events Screening Inventory for Children (TESI-C) (www.ptsd.va.gov/professional/pages/assessments/tesi.asp) or the UCLA PTSD Reaction Index for PTSD-IV (Steinberg *et al.*, 2004).

Trauma-focused CBT requires therapists to use at least one standardised assessment instrument to assess initial trauma symptoms and to evaluate treatment impact. Instruments to assess PTSD symptoms include the UCLA PTSD Reaction Index (Steinberg *et al.*, 2004); Child PTSD Symptom Scale (Foa *et al.*, 2001) or the Trauma Symptom Checklist for Children (Briere, 1996). Therapists may use additional instruments to assess relevant mediators during the course of treatment. Instruments to assess children’s maladaptive sexual abuse-related cognitions include the Children’s Attributions and Perceptions Scale (CAPS, Mannarino *et al.*, 1994) and the Feiring *et al.* (1998) Shame scale. Instruments to assess parental distress related to their child’s sexual abuse and support of their children after sexual abuse include the Parental Emotional Reaction Questionnaire (PERQ) and Parental Support Questionnaire (PSQ) (Mannarino & Cohen, 1996), respectively.

For whom is TF-CBT appropriate?

Children must have experienced at least one remembered traumatic experience (in this case, sexual abuse) and should have significant trauma-related difficulties to receive TF-CBT. Parental participation is ideal but not required for children to receive TF-CBT.

Children may receive TF-CBT in a variety of settings (e.g. home, schools, foster care or residential settings). Trauma-focused CBT has been successfully used for children aged 3–18 years, children of diverse cultures and children with developmental challenges.

Trauma-focused CBT is appropriate for children who have experienced traumas in addition to sexual abuse (Cohen *et al.*, 2004). In fact, the majority of studies and clinic-based implementation of TF-CBT show primarily multiply traumatised youth, rather than single-incident trauma cases. In this situation therapists often identify the ‘theme’ of the child’s multiple traumas (e.g. ‘the people who should have protected me were the ones who abused me’) and weave the specific trauma types into this theme during each TF-CBT component. Therapists may also get a list of the multiple traumatic experiences and bring each of them into the components at different times.

Introduction of and agreement to trauma-focused cognitive behaviour therapy

Once the therapist determines that TF-CBT is appropriate, the child and parent must agree to participate in trauma-focused treatment. Engagement in treatment is critical. If the parent is bringing the child for treatment for externalising behaviour problems the parent probably wants treatment for these rather than for the child’s sexual abuse experiences. The therapist will need to convince the parent and child that the child’s behaviour problems are related to the sexual abuse or they will not agree to TF-CBT. Agreeing to TF-CBT means that sexual abuse will be the primary focus of treatment and the therapist will address the sexual abuse during each session. Explaining this expectation before starting TF-CBT may prevent treatment being disrupted by later behavioural crises.

Symptoms such as avoidance and/or a parent’s own trauma history can create challenges to agreeing to TF-CBT. Therapists should normalise avoidance and fear of discussing the sexual abuse as part of introducing TF-CBT. Analogies are often used to help, such as physical therapy or a medical or dental procedure that seems scary and painful, but is the best treatment for a particular ailment.

Use of gradual exposure

Therapists implement *gradual exposure* during every TF-CBT component. During each sequential session and progressive component, therapists gradually increase the child’s and parent’s exposure to trauma reminders and to discussion about sexual abuse-related material. The therapist closely monitors how the child and parent are using early TF-CBT skills components to cope with the increasing exposure to trauma reminders. When gradual exposure is used correctly throughout TF-CBT treatment, the child experiences significant success in coping with trauma reminders during the skills components and should be well prepared to describe personal sexual abuse experiences when reaching the trauma narrative component.

Parental participation

Although children can receive TF-CBT in the absence of a parent, they achieve the best outcomes when a parent also participates (Deblinger *et al.*, 1996). Parents receive all of the PRACTICE components in parallel sessions with their children. Ideally, the parent receives the same amount of time in TF-CBT treatment as the child in this treatment model. Since parental emotional distress and support are significant mediators of symptoms in sexually abused children, the parental component is especially relevant for this population.

There are times when parental participation is not warranted, such as when the parents are the perpetrators themselves. In these cases, parental participation may be taken on by a grandparent, aunt or uncle, close relative or a foster parent. In the absence of these options, TF-CBT is still effective with only the child receiving TF-CBT (Deblinger *et al.*, 1996). There are also times when the advantage of parental participation is questionable, such as if a parent openly expresses disbelief about the child's trauma, is highly unsupportive of the child, and/or is severely impaired due to personal mental health or trauma history. In these cases, the therapist should implement the first four components (PRAC) with the parent to better understand the capabilities of the parent. In many instances the parent will become more appropriately supportive of the child through these interventions and the therapist can then include the parent in the subsequent TF-CBT components.

Fidelity vs. flexibility

Trauma-focused CBT requires both fidelity and flexibility. The TF-CBT Brief Checklist (Deblinger *et al.*, 2008) lists and briefly describes the PRACTICE components and allows therapists to check off which TF-CBT component(s) the therapist implemented during a given treatment session. Fidelity is determined by the following criteria: (1) implementation follows the PRACTICE acronym with allowance for minor deviations (e.g. some skills may be interchanged; in vivo mastery may be deleted if appropriate); (2) proportion of components is appropriate; (3) total length of treatment is appropriate (8–25 sessions). Flexibility is also critical in implementing TF-CBT. Therapists must determine the best way to implement TF-CBT for individual patients based on the patient's age, developmental level, traumas experienced, culture, individual interests, and other factors.

Trauma-focused cognitive behaviour therapy: PRACTICE components

The TF-CBT model consists of progressively providing the PRACTICE components with appropriate gradual exposure, balancing fidelity with flexibility for each child and family to meet their needs.

Psychoeducation

The therapist provides psychoeducation throughout TF-CBT treatment. Sexual abuse is probably the most stigmatised type of trauma that children experience, likely because of the erroneous association of sexual abuse with sexuality. Thus psychoeducation often begins with accurate information about sexual abuse. A variety of engaging activities are available to use in this regard for children of different ages as well as for parents. For example, *What Do You Know* (CARES Institute, 2005) is a bilingual (English–Spanish) therapeutic card game about sexual abuse, physical abuse, domestic violence and personal safety for therapists to use with children ages 4–17 years old. *Caring for Kids: What Parents Need to Know about Sexual Abuse* provides extensive information about sexual abuse for parents (e.g. disclosure, intra-familial abuse, going to court, acquaintance rape, etc); this product can be accessed and downloaded at www.nctsn.org/trauma-types/sexual-abuse#q1. Teen information sheets about sexual abuse (myths and facts; internet safety; disclosure) are also available on this website. Education about age-appropriate healthy sexuality is also important. For younger children this may include information about the proper names for private parts and about okay and not okay

touching; for older youth more nuanced healthy sexuality materials will typically be appropriate (see www.musc.edu/tfcbt for more resources).

Psychoeducation also includes helping children and parents to identify the child's personal trauma reminders and connect these with the child's behavioural, emotional and/or physical responses. As noted above, children often come to treatment not because of (or only because of) sexual abuse but because of externalising behavioural problems, self-injury, substance abuse or other problems about which parents are concerned. If the therapist successfully uses psychoeducation to connect these problems to the sexual abuse, the child and parent will begin to view these problems in terms of 'what *happened* to the child' (i.e. being related to sexual abuse) rather than 'what's *wrong with* the child?' This change in perspective in turn leads to lessened belief in the child being permanently damaged (i.e. increased hope for recovery), decreased parental distress and increased parental support of the child – all mediators of decreased child symptoms.

Gradual exposure in psychoeducation includes referring to sexual abuse as 'sexual abuse', providing general information about sexual abuse (e.g. how often this occurs, why perpetrators abuse children, why children may delay disclosure, etc.) in a matter-of-fact manner (using normal voice tone, open posture and maintaining eye contact in order not to express shame or embarrassment to the child inadvertently).

Parenting component

The therapist typically provides TF-CBT to parents and children in individual, parallel sessions, in order to allow parents to express their own, often difficult, feelings and thoughts about the child's sexual abuse, and gain the skills to support the child through the TF-CBT model without worrying that what they say may be problematic for their children. This approach similarly allows children to express themselves freely without having to protect or worry about their parents. When parents and children have addressed their respective sexual abuse-related concerns, they come together during conjoint sessions for the child to share the trauma narrative and for the parent to provide support to the child as described below.

After discovering one's child has experienced sexual abuse parents often drastically change parenting styles, for example, by becoming excessively permissive or protective. Either change can be problematic as children perceive such changes to mean that sexual abuse has made the child fragile and in need of special treatment. In contrast, when parents hold children to age-appropriate expectations, this provides needed structure for children and conveys to the child the message, 'the sexual abuse has not irrevocably damaged anything about you, your parent or our family'. This is strongly reassuring to almost all children and parents.

If parents have never provided appropriate structure and rules, this is an opportunity for the parent to do so. The therapist teaches the parent through education, modelling and ongoing practice and support, to provide effective parent management of problematic child behavioural and emotional problems. These interventions are described in greater detail elsewhere (Barkley, 1997), but TF-CBT therapists must often spend considerable time working with parents to change parenting behaviours. Effectively using positive attention, praise and other 'time in' procedures through which the child and parent share positive time together is critical to positive child–parent interactions. Selectively attending to positive behaviours while overlooking or paying less attention to negative behaviours is the opposite to what most parents do; this often explains why undesired behaviours

continue. Helping parents to reverse this process is often challenging but once parents are able to master this, they often report that desired behaviours occur more often while negative ones decline. Developing contingency reinforcement plans that work requires that parents, teachers and others in the child's environment consistently carry out the programme and, especially, provide promised rewards according to the established schedule. The therapist helps the parent develop specific behavioural interventions (e.g. for sexually inappropriate behaviours or externalised behaviour problems) with input from the child regarding desired rewards. The therapist checks with the parent on a weekly basis to see how the programme is working. If the programme is not achieving the desired effects the therapist conducts a functional behavioural analysis to determine why not and adjusts the programme accordingly (Cohen *et al.*, 2010).

Gradual exposure in parenting skills includes helping the parent to connect the child's behavioural and/or emotional problems to the sexual abuse experience. By understanding these problems through a trauma perspective the parent begins to develop more compassion and support for the child's difficulties while also using more effective strategies to address these problems.

Relaxation skills

Relaxation is one of several skills children develop during TF-CBT as 'tools in the toolkit' for coping with trauma reminders or other challenging situations. The therapist develops individualised relaxation strategies for the child (and if appropriate, the parent) to use in response to physiological hyperarousal symptoms such as headaches, stomach aches, jumpiness, anxiety, etc.; and also to use the 'turn down the volume' technique in generally stressful situations. These strategies often include traditional CBT relaxation techniques such as focused breathing, visualisation and progressive muscle relaxation (PMR) but in many cases the therapist also inquires about activities the child finds relaxing or enjoyable and includes these in the child's relaxation toolkit (e.g. sports, reading, crafts, listening to music or spending time with a favourite pet). The therapist may help the child recognise that some activities are more suitable than others for specific settings (e.g. the child cannot spend time with his dog as a relaxation strategy when he becomes anxious before taking a test in school so it is useful to have alternative strategies for that setting, such as deep breathing or visualising playing with his dog). The parent learns the child's relaxation strategies and encourages the child to use these between treatment sessions. If appropriate, educational personnel can also be included in supporting the child's use of relaxation skills.

Gradual exposure in relaxation includes encouraging the child to utilise the relaxation strategies when the child experiences trauma reminders and encouraging the parent to support this.

Affective modulation skills

After sexual abuse some children learn to suppress feelings (e.g. because negative abuse-related feelings were overwhelming; because expressing negative feelings to the perpetrator resulted in worse abuse, etc.) Therapists often begin this component with an affective identification exercise to ascertain the child's emotional expression skills. Several games are available to use for feeling identification, for example, *Emotional Bingo* for teens or children, respectively (Mitlin, 1999) provides a developmentally appropriate format for the child to develop a broader and more nuanced feeling vocabulary as needed.

As this occurs the therapist also helps the child develop individualised affective modulation skills for the child's toolkit. These skills help the child to regulate distressing feelings, including those that are sexual abuse-related and those that occur in the course of the child's everyday life. Common affective modulation skills included in TF-CBT are thought stopping and thought replacement; seeking social support from peers, parents and other helping adults; learning to accurately read others' emotional expressions and social cues; problem-solving skills; distraction skills; and self-soothing exercises. During this component the therapist continues to elicit the parent's support for the child using these skills. The parent learns the child's affective modulation skills and encourages the child to express feelings in appropriate ways. Often the parent has inadvertently discouraged the child from expressing negative emotions (e.g. the parent might have said, 'We don't say we hate people in our family') but now the parent learns to listen and validate the child's appropriate affective expression and to model this for the child (e.g. 'I'm glad you told me you're mad at grandma for not believing you about the sexual abuse. I'm upset about that too.')

Gradual exposure in affective modulation skills includes helping the child to use appropriate affective expression and modulation skills when experiencing trauma reminders, and encouraging the parent to support and model this.

Cognitive coping skills

The therapist helps the child and parent to understand connections between feelings (identified during affective modulation skills), behaviours, and thoughts or cognitions. The therapist may ask the child about an upsetting feeling during the previous week, and then ask the child to connect this to a thought. For example, the child reports that she was angry at a friend for not inviting her to her house as previously promised, and refused to talk to the friend for the rest of the week. The therapist asks the child, 'What were you thinking to yourself when you were feeling so angry?' The child may say, 'She doesn't really like me or she would have kept her promise'.

To introduce cognitive coping the therapist may then say, 'I wonder whether there could be any other possible reason why your friend could not have invited you over. Can you think of any other explanation? Very importantly, the therapist does not engage in cognitive coping in a challenging or confrontational manner in order to 'change' the child's thoughts. Rather, the goal is to open the door to a broader range of possibilities. Some alternative possibilities might be that the friend forgot about her promise; the friend was not allowed to have friends over that week; or the friend may have been too busy to have a friend over. The therapist explores these possibilities with the child and asks how the child would feel and behave if they were true. The child says that she would feel better if she thought her friend was not allowed to have friends over; she would feel sorry for her friend and maybe invite her over to her house instead. This is illustrated in the following example of cognitive coping.

Situation: My friend did not invite me over to her house.

Original thought: She doesn't really like me.

Original feeling: Angry.

Original behaviour: Did not speak to friend the rest of week.

New thought: She was not allowed to have friends over; I can invite her over.

New feeling: Sorry for her, hopeful that she still likes me.

New behaviour: Invite her to my house.

Therapists provide cognitive coping to parents as well as to children. Often parents are struggling with personal maladaptive cognitions related to their child's sexual abuse and the therapist begins by using cognitive coping strategies with the parent to cognitively process these during this component. During the cognitive coping component, gradual exposure consists of helping the parent use cognitive coping skills to address maladaptive thoughts about the child's sexual abuse.

In contrast to addressing abuse-related cognitions with the parent during the cognitive coping component, the therapist does not typically process sexual abuse-related maladaptive cognitions with the child during this component; this cognitive processing work is deferred until the next component when the child is developing the trauma narrative. This component is *the only exception to the rule* that each component directly addresses the child's trauma reminders. Cognitive coping is the only component in which the therapist does not directly encourage the child to use the coping skill for abuse-related thoughts. If cognitions are processed before the child develops a full narrative of his or her abuse experiences, the risk is that the child will not disclose his or her 'worst thoughts' – those that are likely causing the child the most pain. For this reason cognitive processing is deferred until the child has the opportunity to describe maladaptive cognitions fully through the process of creating the trauma narrative.

Trauma narrative and processing

In this component the therapist encourages the child to develop a narrative describing his personal sexual abuse experiences. The therapist can introduce the trauma narrative by reading a book about child sexual abuse, for example, *Please Tell* (Jesse, 1991) or *Kids Helping Kids* (Foltz, 2002), then suggesting that the child tell the story of his (or her) own sexual abuse experiences. It is often helpful to start the narrative with innocuous information about the child (e.g. where he attends school, who his friends are, what activities he likes, etc.). The second chapter often describes the child's relationship with the perpetrator before the abuse began. This allows the child to express positive or ambivalent feelings towards the perpetrator, and gain a better understanding of how the grooming process occurred (if applicable). In the third chapter the therapist encourages the child to tell about a specific sexual abuse episode from start to finish, and gradually encourages the child to include increasing details about thoughts, feelings and body sensations if these are initially excluded. Most children will tell their story somewhat chronologically, including the first episode, the most recent episode, the worst episode, information about the disclosure, and how family responded to this. The therapist frequently has the child review what he has previously written in order to help the child accommodate to thinking and talking about these sexual abuse memories to gradually desensitise them to these memories. Through this process children typically report that their distress related to talking about the sexual abuse substantially decreases during the course of developing the narrative. Therapists can ascertain this by having children rate a Subjective Units of Distress Scale (SUDS) at the end of each trauma narrative session. As the child develops the narrative the therapist identifies maladaptive cognitions and helps the child to process these using techniques described in the cognitive coping component above.

As the child develops the narrative, the therapist meets in parallel individual sessions with the parent to share the child's narrative. Often the child's parents have never heard the details that the child includes in the narrative and the therapist should expect that parents will experience some level of distress the first time they hear the child's narrative. In a manner similar to their children, parents accommodate to hearing their trauma narratives

over several sessions and thus hearing the child's narrative during these sessions is important preparation for the upcoming conjoint child–parent sessions.

Gradual exposure in the trauma narrative and processing component includes helping children gradually include more details about their trauma experiences.

In vivo mastery of trauma reminders

For children who develop generalised avoidance of innocuous situations (e.g. using the bathroom such as in the case of the girl described above; attending school, etc.), the therapist works with the child and parent to develop a fear hierarchy and an in vivo exposure plan. The parent and other adults (e.g. school personnel if the child is attempting to return to school) must be completely committed to the plan if it is to succeed since stopping the plan before mastery is achieved will reinforce the child's perception that the feared situation is actually dangerous. The child uses TF-CBT skills to gradually master steps in the fear hierarchy until the child can return to full adaptive functioning (e.g. use the bathroom; return to school, etc.).

Gradual exposure during this part of the programme involves helping the child continue to face feared trauma reminders when ascending the fear hierarchy, and encouraging parents to support the child in this process.

Conjoint child–parent sessions

Towards the end of TF-CBT treatment, 2–3 conjoint sessions occur to transition children and parents from talking about sexual abuse primarily with the therapist, to talking directly to each other about sexual abuse. This may occur by (1) the child sharing the trauma narrative directly with the parent; (2) the child and parent communicating directly about sexual abuse, for example by asking each other questions about the child's narrative, the child's sexual abuse experience or about sexual abuse in general; (3) discussing healthy sexuality in a manner that is age-appropriate for the child's development; and/or (4) beginning safety planning for coping with future trauma reminders. Before bringing the child and parent together in the room for the actual conjoint session, the therapist meets individually with the child and parent to introduce the content of that day's conjoint session, prepare the child or parent, respectively, and allow the child or parent to ask any questions before bringing them together. For example, before the child reads the trauma narrative to the parent, the therapist might have the child go through a practice run of reading the narrative one last time just to the therapist and write some questions to ask the parent; then would do the same with the parent (allow the parent to hear the therapist read the narrative one last time before the child reads it and prepare some questions for the child). This preparation allows for positive experiences when child and parent begin to talk about sexual abuse.

Gradual exposure during the conjoint sessions includes the child and parent addressing the child's sexual abuse experiences together and planning for future trauma reminders together.

Enhancing safety and future developmental trajectory

The therapist explores ways the child and parent can enhance the child's safety from future sexual abuse as well as general safety. Healthy sexuality education may continue as part of this component, along with other education about personal safety skills (e.g. bullying prevention; drug refusal skills, etc.). For younger children the parent needs to take an

active role in assuring safety. The therapist works with these parents to develop a safety plan that is age-appropriate and consistent with the family's life circumstances.

Gradual exposure in the safety component includes addressing how to maintain safety from recurrent threats of sexual abuse or other traumas.

Empirical support for TF-CBT

The evidence behind TF-CBT is extensive. To date TF-CBT has been tested in ten randomised controlled trials; seven of these studies were for children experiencing sexual abuse as the index trauma. All these trials have demonstrated that TF-CBT is superior to child-centred supportive therapy, treatment-as-usual, or non-directive supportive therapy in improving children's PTSD, depression, anxiety, shame and behaviour problems (Cohen *et al.*, 2004; Cohen & Mannarino, 1996a, 1996b; Deblinger *et al.*, 1996, 2001, 2011; King *et al.*, 2000). Follow-up studies provide evidence of sustained benefit at 6 months, 1 year and 2 years post-treatment (Cohen & Mannarino, 1997; Cohen *et al.*, 2005; Deblinger *et al.*, 1999, 2006). Many research articles also show clinical significance, such as TF-CBT leading to significantly greater children moving from clinical to normal range in PTSD diagnosis, and fewer children running away and placement disruption (Cohen *et al.*, 2004, 2006b; Weiner *et al.*, 2009). Trauma-focused CBT has been proven effective for children exposed to a variety of traumatic events and has received the strongest empirical support ratings from independent reviews of abused children (Chadwick Center for Children and Families, 2004; Saunders *et al.*, 2004). Trauma-focused CBT has also been adapted and used with several populations including Latino (de Arellano & Danielson, 2005), refugees of African descent (e.g. Center for Multicultural Human Services, www.nctsn.org), and Native Americans (BigFoot & Schmidt, 2010). In addition, it has demonstrated broad applicability as well as acceptability among ethnically diverse therapists with varied backgrounds, children and parents (Huey & Polo, 2008). International reviews, such as the NICE guidelines, also recommend the use of trauma-focused cognitive behavioural interventions for children with PTSD and specifically those that have experienced sexual abuse (www.nice.org.uk/CG026NICEguideline, 2005).

Summary

Child sexual abuse is a common trauma with potentially serious and long-lasting negative outcomes. Trauma-focused CBT provides parallel components to children and their non-offending parents summarised by the acronym PRACTICE, to address the multiple impacts of sexual abuse and other traumas. Strong evidence supports the efficacy of TF-CBT for improving child and parental functioning following sexual abuse.

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Children with chronic and life-limiting health conditions

Melinda Edwards and Inés Baños

The challenges of living with chronic and life-limiting conditions

Families facing serious paediatric illness are essentially ordinary families facing extraordinary stressors. (Kazak, 1997)

With advances in medical treatment, many more children are surviving into adulthood with conditions which can often be managed but not cured. Living with a chronic or life-limiting condition can present a complex array of challenges arising from both the condition and the demands of the associated treatments. Children may experience a variety of disabling physical symptoms, including pain, fatigue, nausea and impairment of sensory or motor skills. Families of children as well as the sick child will need to find ways of adapting to living with these symptoms as part of normal daily family life. Progressive and degenerative conditions present their own specific challenges requiring even more adaptation to each new phase of illness and loss of skill as well as the profound emotional responses to the deteriorating course of the illness.

Children may also have to endure repeated invasive and distressing procedures in hospital including blood tests, lumbar punctures, chemotherapy and surgery. At home, daily care is mainly carried out by parents. Although this is clearly less disruptive to families than specialist hospital-based care, it does mean that children and families are increasingly expected to cope with and adhere to complex and intrusive treatment regimes when at home. Daily treatment regimes may involve time-consuming or intensive intervention from parents or carers, including day and night tube feeding, tracheostomy care, physiotherapy or complex medication regimes. It may also involve a significant shift in the dynamics and relationships within the family, with one carer (often the mother) taking the primary role in carrying out treatment and consequently a lesser role in other aspects of family life.

Child and family life can also be severely disrupted when extended stays in hospital are required (which may be some distance from home), or through unpredictable ‘flare ups’ of the condition which require acute admissions and a ‘putting on hold’ of any normal daily activities such as school or social activities. Hospital stays may involve one or both parents needing to stay in hospital, and siblings staying with relatives or friends, with consequent disruptions to parents’ work commitments as well as to the daily life for other children in the family.

Many children and families can be very resilient and cope well with many of these demands, and it is worth noting that there is a general absence of psychopathology in children

with paediatric health problems and their families (Kazak *et al.*, 2003). Studies have indicated however, that a significant minority of children with a chronic illness are at increased risk of developing psychological difficulties when compared with healthy children, with estimates of psychological problems ranging from 10% to 37% (Glazebrook *et al.*, 2003; Meltzer *et al.*, 2000). The psychological risks are doubled for those children with neuro-developmental disorders such as epilepsy (Austin & Caplan, 2007). Emotional difficulties are most prevalent with issues of adjustment and adaptation, anxiety, low mood and depression. Children with chronic illness are also at higher risk of developing peer relationship difficulties than healthy children (Reiter-Purtill *et al.*, 2009). Research on the impact on parents has invariably focused on mothers rather than fathers, and has indicated that mothers of sick children have higher levels of anxiety and more symptoms of depression than mothers of healthy children, particularly at or shortly after diagnosis (Glasscoe *et al.*, 2007; Sloper, 2000). A meta-analysis carried out on studies of coping in siblings demonstrated a small increase in psychological difficulties in children whose sibling had a chronic illness (Sharpe & Rossiter, 2002).

Context of psychological (cognitive behaviour therapy) work

It is widely recognised that psychological care is an integral part of effective healthcare. For example in the UK, The Department of Health has stipulated within the National Service Framework for Children and Young People (Department of Health, 2003) standards to improve the quality of care. Standard 7 of the National Service Framework states that services should ‘consider the whole child’ not simply the illness being treated and that ‘attention to the mental health of the child, young person and their family should be an integral part of any children’s service’. It is also established that psychological interventions improve not just psychological but also health outcomes (Channon *et al.*, 2007; Spirito & Kazak, 2006), and can impact positively on cost-effectiveness of healthcare (Ellis *et al.*, 2005).

The process of adaptation to the challenges of illness and treatment will accentuate many different problems over the ‘illness journey’. Referrals to psychological services are commonly around helping children and families cope with medical procedures. This may include preparation for procedures and decision-making about treatment options. It may also involve support or management of the child during the procedures, and dealing with the trauma arising from treatment. Other key areas involve promoting treatment adherence, symptom management (including medically unexplained symptoms) and management of emotional distress (anxiety, poor self-concept, low confidence and mood) arising from the condition and treatment.

A central aim of psychological care is to promote adjustment and resilience in children and their families. This involves respecting both the challenges they face and the skills and resources they have available. It also involves working in a collaborative manner with them to identify and develop the necessary skills and problem-solving strategies to enable them to overcome future challenges. Cognitive behaviour therapy (CBT) is therefore well suited as a therapeutic approach, being both active-orientated and collaborative in nature where children may embark on ‘a process of guided discovery, experimentation and practice’ (Stallard, 2002).

Spirito and Kazak (2006) highlight that CBT has been the most widely tested individual-based approach used effectively within paediatric settings. As such the evidence base is stronger than for other forms of intervention. The most robust evidence for CBT approaches exists in managing pain, and procedural distress (Duff *et al.*, 2012; Jaaniste *et al.*, 2007;

Paediatric Psychology Network, 2010; Uman *et al.*, 2008). There is growing evidence from adult healthcare for the value of more recent and innovative CBT approaches including Acceptance and Commitment Therapy and Mindfulness, particularly in symptom and pain management (Burch, 2008), with emerging evidence for its application in child healthcare (Wicksell *et al.*, 2009). The focus of these approaches is on identifying and integrating life values and goals into therapy, and helping increase acceptance of the symptoms ('being with' the experience rather than avoiding or resisting it), building self-awareness, and applying mindfulness in daily life by pacing, pausing and releasing tension in both body and mind.

A helpful model of service provision to paediatrics, called the 'Paediatric Psychosocial Preventative Health Model' has been described by Kazak *et al.* (2007). This model illustrates the different levels of intervention that may be helpful, from more proactive and preventative input (which will have universal benefits to all families and children) to more intense and targeted approaches following identification of a particular concern or problem. Preventative work may be protocol driven, for example, assessing all families prior to a child entering a transplant programme or using a 'pump driver' to manage their diabetes. The aim is to provide a psychological framework for supporting their experiences, recognising and promoting the skills and resources they require. Early intervention also enables identification of families who may be at increased risk of developing problems and enabling specific work to be carried out to ameliorate these difficulties. More targeted interventions are provided for children referred for particular difficulties or concerns, which often include issues around adjustment and adaptation; adherence and support with medical treatments; and symptom management. A small proportion of children and families may experience more marked psychological difficulties requiring referral on to mental health services, often where children and families have other significant psychosocial difficulties which are compounding health difficulties.

In accordance with the different levels of input required, CBT may be flexibly used. At the universal level, cognitive behavioural techniques may be used to inform practice, such as in aspects of psychoeducation, informing children about their medical condition or treatment, normalising worries and mobilising adaptive coping responses. There are also some very helpful children's books for younger children, which can be read at home, and can assist parents in helping their child manage some of their worries (see Huebner, 2006 and Ironside, 2004 as examples).

In more targeted approaches, CBT strategies may be employed more directly to overcome specific difficulties such as procedural anxiety, through skills training and the use of distraction or relaxation skills. Cognitive behaviour therapy may be carried out in a more structured and focused treatment approach, for example in managing anxiety, or low mood which is exacerbating distress, or trauma-focused CBT following traumatic medical procedures which may be preventing a child cooperating with ongoing medical treatment.

Special considerations in using cognitive behaviour therapy in healthcare

Psychological services for families and children with serious health problems are often based in medical settings and well integrated within healthcare teams. Children and families are seen within a complex health and social care system with multiple professionals involved in their care. Any effective psychological work will therefore need to be systemically applied at all stages from assessment, formulation and intervention. Assessment using a CBT framework lends itself extremely well to communicating effectively and sharing

formulation with other members of the healthcare team, as does enlisting the support of the healthcare team in reinforcing any practical implementation of a CBT plan with children in hospital.

A particular challenge within the hospital setting is being able to see the child and family regularly over an extended time to be able to carry out psychological work. This may be due to the child feeling too fatigued or unwell to consistently travel to attend appointments (if an outpatient) or feeling too unwell whilst in hospital to engage and concentrate sufficiently to participate in sessions, let alone carry out 'homework' between sessions. Many children and families may only be seen a small number of times, so CBT techniques may need to be flexibly used in individual sessions, rather than a more comprehensive course of CBT therapy being offered.

Engagement in regular or ongoing psychological sessions may also be undermined by the number of other medical appointments children must attend and the distances they may travel if they are receiving more specialist medical care. Appointments for therapeutic work tend to be offered to fit around these appointments, with some work being carried out alongside or jointly with other healthcare professionals, either to gain a greater understanding of the presenting problem or to support the family and child in practicing or utilising skills to manage in these situations.

Working alongside other healthcare professionals can also be helpful in terms of offering input which is more 'credible' and is more acceptable for families, who might otherwise be ambivalent about accessing psychological help when their child clearly has a physical problem or has well-grounded worries about surgery or procedures which are inherently unpleasant and uncomfortable. It is clearly important to frame any CBT work within the medical context, firstly to help families understand that interventions may help cope with the distress of symptoms rather than suggest they should not be feeling distressed or that the symptoms are not real. It is also important to explain the CBT model to help families understand that the way we think about events can affect the way we feel and behave and so although we cannot change the medical condition and some of the medical events that happen, we can try to have a positive impact on the way this is experienced and coped with.

For all of the above reasons, it is important that CBT interventions are applied flexibly and creatively, and that the fluctuating context of the child's needs and abilities are always taken into consideration in making treatment plans. Similarly any work may need to be flexibly adapted to be carried out in a medical outpatient clinic, at the child's bedside, or during a physiotherapy or medical treatment session, with a mobile case of resources at the ready. The remainder of the chapter will discuss the application of CBT techniques within a paediatric setting and provide case examples to illustrate these techniques.

The process of helping

Essential to the therapeutic helping process is skilled engagement of the child and family and the development of a respectful, collaborative relationship. Problem-free talk can be useful in facilitating engagement by helping the child and family to feel valued as people beyond the problem they are presenting with. Discussion focusing on problem-free activities can also highlight skills that could potentially be transferred to more challenging areas, and also indicate interests or activities that can be encouraged or developed as part of the intervention or used as motivators or goals. For example, one young boy was engaged through discussion

involving his love of football, and the metaphor of a football player being ‘on the bench’ due to injury was then used to discuss his pain and symptoms and his thoughts and feelings about getting ‘back on the pitch’. One of this young man’s concrete goals in his rehabilitation was to get to the football stadium to see his favourite team play.

There is often an overlap between assessment and intervention. The aim is to develop a shared formulation, based on gathering information from a variety of sources, about why the child or family has developed the current difficulties, identifying vulnerability or predisposing factors, any trigger events that may have precipitated the current situation and factors that may be maintaining the difficulty. Social, cultural and ethnicity factors also need to be considered as well as family belief systems. A collaborative intervention can then be developed with the child, family and medical team, placing the intervention within the context of the child’s medical condition and healthcare needs.

Interventions may involve a range of CBT techniques, the most common being self-monitoring (thoughts, feelings and behaviour), modifying negative or unhelpful thinking using behavioural experiments to challenge and acquire new information, activity scheduling, pacing, positive self-talk and relaxation skills. Group-based interventions with peers, involving active problem-solving through role play within the peer groups, provides a creative and supportive medium for young people to explore and challenge beliefs and to acquire confidence in applying new skills (Barakat *et al.*, 2003; Edwards & Titman, 2010). Involving parents and the wider system has been shown to increase effectiveness of these interventions (Scholten *et al.*, 2011).

Letters or certificates celebrating the child’s newly acquired skill or success in overcoming a previous medical challenge can serve as a valuable and concrete reinforcement for the child. The ‘Bravery bead programme’ developed in the USA is also being introduced in some paediatric settings in the UK. Young people are awarded particular beads for each procedure, including a ‘WOW’ bead after a first time accomplishing a procedure or experiencing a particularly difficult event. Children can both collect and wear their beads, to display their achievements and experiences (see www.Braveryhearts.com).

Promoting treatment adherence

Case example

Sally, a 15-year-old girl in chronic renal failure, was required to take six different medications (a total of 23 tablets) during the day, as well as restrict her fluid intake and follow a prescribed diet. Her medication regime was regularly amended to take account of her reducing kidney function. Sally was fiercely independent of her parents and took sole responsibility for her medication. This had apparently followed a row with her parents after they refused to let her stay with her friends due to her lack of independence with her treatment. For the past several months her doctors had been concerned about the progression of her kidney disease, and queried her medication use. Given her strong assertion that she was taking her medication, her doctors responded by increasing some of her tablets as they did not seem to be effective. The medical team also increased the frequency of her appointments and blood tests to monitor her more closely. The blood test results became increasingly erratic and it became evident that she was not managing to take her tablets consistently and effectively. At this point Sally became very tearful and admitted that she felt totally overwhelmed and unable to cope with her treatment regime.

What is adherence?

Adherence to treatment is the extent to which the patient's behaviour is consistent with the clinician's recommendations. With adherence rates as low as 50% in some areas (Rapoff, 1999; World Health Organization, 2003), this is a significant area of concern in paediatrics. DiMatteo *et al.* (2002) report that poor adherence has been estimated to compromise the health outcomes of paediatric treatments by an average of 33% and by as much as 71% in some cases.

The level of adherence has major implications for treatment effectiveness, with poor adherence associated with increased symptoms, poorer health and consequent escalation of treatment in terms of type of treatment needed and frequency of healthcare utilisation. It also has implications for morbidity, mortality, future health and quality of life and can lead to the discontinuity of medication perceived as ineffective (DiMatteo *et al.*, 2002; Osterberg & Blaschke, 2005).

Children may be required to carry out a range of self-care tasks or treatment regimes as part of the complex medical management of their condition. Examples of this include following strict dietary or fluid regimes, taking multiple medications, and performing self injections and blood tests. Children and families therefore require both an understanding of what is required of them and the practical skills for carrying this out. A commitment to carrying out any regime will also often require some perception that it is necessary and that any challenges in carrying out the regime are outweighed by the benefits of doing so. Adherence is not an all-or-nothing concept – the child and family may manage to adhere to some aspects of treatment but not others, and to adhere for some but not all of the time.

Evidence base for interventions to promote adherence

Multi-component interventions, rather than specific CBT protocols, have been developed to address the complexity of treatments and multiple factors relating to adherence. Interventions commonly combine educational, behavioural and psychosocial strategies. A recent meta-analysis has demonstrated moderate effect sizes for behavioural and multi-component approaches (Kahana *et al.*, 2008). An exciting emerging intervention is the use of motivational interviewing (Suarez & Mullins, 2008) to resolve ambivalence and improve treatment adherence. Motivational interviewing is a form of goal-directed client-centred counselling, which aims to increase motivation for change (Miller & Rollnick, 2002). The style of questioning is non-confrontational and has a practical focus, using problem-solving techniques and goal setting from CBT approaches. A randomised controlled trial of motivational interviewing with adolescents who had Type 1 diabetes has been shown to have promising results (Channon *et al.*, 2007). Compared with a control condition, motivational interviewing resulted in improvements in adolescents' metabolic control and psychosocial functioning at 24 months follow-up.

The process of psychological work

Assessment

There are a number of factors which impact on adherence, and a comprehensive assessment is required to understand the risk, trigger and maintaining factors in each presenting child and family. It is also important to carefully assess who is asking for psychological help and what each person is hoping to gain from therapy. Referrals from the medical team are

often made when the team has reached an impasse in their communications with the child or family and are concerned about the impact of suboptimal adherence on the child's current or future health. Many young people are highly ambivalent about receiving help and are brought along by their parents without any apparent concerns about what they are doing or the implications for their health.

There are many known risk factors for poor adherence, including factors relating to the child, family, illness and relationships and experiences within healthcare. Adherence rates in adolescents are lower than in children, which may be related to young people's level of social maturity (and ability to deal with peer pressure) and the shift in responsibility from parent to adolescent in care responsibilities (Rapoff, 1999). Family factors, including low social economic status, poor levels of communication and support, and conflict or stress are also related to a poorer adherence level. (La Greca & Mackey, 2009). Poor communication between children, families and healthcare professionals contributing to a limited understanding of the rationale or consequences of not taking treatment is a significant factor in poor adherence (Drotar, 2009). Young people who have had particularly traumatic experiences due to their condition and treatment are also reported to have poor adherence (Shemesh *et al.*, 2000), with avoidance of treatment which reminds them of this trauma being the suggested link. Chronic illnesses and those with more complex regimes are also associated with lower adherence rates (Johnson, 2000; Lemanek *et al.*, 2001) suggesting that it is not reasonable to expect consistently good rates of adherence in all aspects of disease management at all times.

Gathering information from multiple sources including the family, healthcare team and outside agencies such as school as to the particular risk and trigger factors for this problem is clearly important. However, gaining more precise information about the level of adherence in order to establish a baseline, is often more difficult in the absence of more invasive medical measures (such as blood tests), unless the young person is able to be extremely open and honest about their difficulties and be committed to working collaboratively to overcome them. The importance of engagement and developing an effective therapeutic relationship is integral to this work.

Formulation and intervention plan

Clearly, it is important to work as collaboratively as possible with the young person and family, as well as the healthcare team, to develop a shared formulation of the current difficulties. In the case example above, this would include gaining the child and family's perspective of the relevant predisposing risk factors, precipitating factors and maintaining factors. Risk factors in Sally's example included the chronicity of the condition and complexity of the treatment. The precipitating events in this case appear to have been the sudden shift of responsibility to Sally in taking her medication, and a recent change in the medication regime. Factors such as wanting to preserve her independence and not admit she was struggling with her medication as well as feeling totally 'stuck' and overwhelmed appeared to contribute to maintaining Sally's behaviour of avoiding taking her medication. From this working hypothesis, it was possible to develop an appropriate intervention, which was goal based, taking into account the needs and priorities of the child, the family and healthcare team.

One of the helpful interventions for Sally and her family was to contextualise and normalise her challenges with adherence. This involved noting that she was extremely successful in adhering to other aspects of self care, such as her fluid and dietary restrictions, and had clearly

developed excellent strategies for doing so. Placing the difficulties Sally had with assuming full responsibility for her treatment within a developmental context, and sharing research findings about 'risk' factors with adherence in chronic conditions enabled some normalising and de-stigmatising of her difficulty.

A thought diary also proved very helpful in exploring her beliefs and thoughts about taking her medication, and revealed a number of cognitive distortions/thinking errors including:

'All or nothing' thinking – a belief that she was only successful in taking her medication if she took all the medication perfectly every day. The result of this was that if she missed a morning dose, she would then 'write off' the whole day and not bother to take any more of that day's medication and instead start again the following day and aspire to be 'perfect' that day.

'Catastrophising' – 'I cannot admit my failure'. Sally's diary revealed her fears that all the doctors would be very cross with her and that her parents would never trust her to see her friends, leading to her being rejected by her peer group.

Selective attention – 'I'll never be able to do this, it's all too difficult', leading to Sally feeling increasingly hopeless and trapped by the expectations of adhering to her treatment regime but feeling totally overwhelmed, undermined and unable to do so.

In addition, her thought diary revealed high levels of anxiety about not taking her medication, including worrying that if she became unwell everyone would blame her. She also worried about what she should do if she missed certain tablets/doses in the day; feeling unsure if it would be better to take extra later on or just double the next day. She would also worry that this too might make her unwell. The high levels of anxiety were managed by Sally avoiding thinking about her medication and therefore not taking it. Over time she rationalised that she might not need to take her medication as she was still feeling relatively well even when taking it so inconsistently, having apparently 'fooled' the doctors for months.

Over a number of sessions, it was possible to look at the evidence and helpfulness of some of this thinking and to set up situations which could challenge and replace unhelpful beliefs. One intervention involved supporting Sally in challenging some of her beliefs about people's response to her situation, and talking openly with her medical team and pharmacist about her difficulties. This led to a review of her medication regime and help for her to practically implement her regime more successfully into her day. The use of a 'dosette' box to order and count out the tablets required each day was one practical strategy, as was a clear plan of what she could do if she missed a dose. One positive consequence about taking her tablets was a reduction in the number of tablets she actually needed to take, which in turn positively reinforced her efforts.

Working systemically with Sally and her family enabled a 'shared responsibility' for her medication, framing part of the parental role as being able to 'train-up' Sally, supporting and reinforcing her efforts. Part of this also involved agreed overnight stays with friends, both as a reward for her efforts, but also as an opportunity to test out and monitor her new skills and resources in this more independent environment.

Other formulations around poor adherence in different conditions and presentations may reveal a number of other interventions that are appropriate. For example, the assessment may have highlighted limited understanding of the rationale for the treatment. A more detailed exploration of the understanding of the condition, the meaning of treatment for the child and family, and the practical or social resources available to them is therefore indicated.

An important area of exploration is around the beliefs and expectations held about treatment. The benefits of treatment may not be self-evident, as the purpose may be to maintain current health and prevent further difficulties; therefore the child and family may not perceive any immediate benefits or improvement, which can make sustained effort and commitment to time-consuming or tedious treatment difficult.

Case example

Ryan, a 7-year-old boy, was very uncooperative with his daily physiotherapy. He found it very tiring and it involved him coming out of class to do his exercises. However, in conversation with Ryan his greatest frustration was that it 'didn't work', as he still could not walk and run without falling over. Ryan had a form of muscular dystrophy which meant his muscles would continue to deteriorate over time, and physiotherapy was an intervention to try and maintain muscle strength and mobility for as long as possible; it would not 'cure' the problem.

Communication of developmentally appropriate information about the rationale for treatment involves being mindful of what the child may need to know as well as the information parents feel comfortable sharing with their child. It can be helpful to think with children and families about the questions they have and who within their 'care system' might be helpful to address these questions. The aim is to empower children and families to feel skilled and comfortable to challenge or question what is happening, to acquire information which is helpful, and to establish this model of collaboration and partnership in their healthcare, both current and future.

The assessment may also reveal some difficulties in actually carrying out the behaviour required for treatment adherence and may indicate the need for the child to acquire a particular skill or technique. For example, when children first start taking medication in tablet form, they may find it difficult to swallow and become fearful of choking or being sick. They may also have had an experience of choking or retching during their initial attempts and have an expectation or anticipatory anxiety of this happening again which will further exacerbate their fear. An assessment of children's beliefs and fears can inform the most helpful strategy to supporting them. This may involve a graded approach to training, beginning with easier techniques (e.g. starting with smaller objects, such as sweets or small chips of ice) and progressing to larger objects. It may also involve carrying out 'behavioural experiments', using a variety of techniques for swallowing tablets (such as placing the tablet on the tongue and 'snookering' the tablet down with a straw full of water!). Children may be asked to rate how difficult they predict each stage will be and to re-evaluate their ratings following each attempt at successive stages, with their increasing mastery over the task. This process may help to challenge unhelpful beliefs and create new, more positive ones, which can be shared and reinforced by other family members and professionals. Children can be empowered to create new, more helpful beliefs about their problem-solving strategies for when future challenges are faced.

The CBT strategies used to change behaviour to promote adherence will therefore be informed by the assessment of the challenges faced, but also by the current relationship of the child to their difficulty. Prochaska and DiClemente's transtheoretical stages of change model (1982) describes a series of five stages which are part of the process of changing behaviour. These stages are: pre-contemplation, contemplation, preparation, action and maintenance. This model can be helpful in identifying what 'stage' a young person is currently functioning at and tailoring strategies or plans to most helpfully address the relevant issues. For example, a child who is ambivalent about carrying out physiotherapy

exercises following orthopaedic surgery may, at the earliest stage, be too overwhelmed or anxious about the idea of physiotherapy as he (or she) may worry it will be painful. If this is the case it may be necessary to spend time exploring the child's understanding of his body and his previous experiences of pain. At the contemplation stage, asking the child questions which explore beliefs about the advantages of change and what his beliefs are about the differences this may make for him will be helpful. It is only at the point when children are convinced about the benefits of doing the physiotherapy that it is appropriate to begin developing plans or preparing for change. At this point, the child may need some help developing skills for managing pain such as using relaxation or distraction techniques or may need some support in activity scheduling to incorporate the exercises into his day. The child may then need an opportunity to test out the components of the plan so he (or she) can have some confidence in using the plan when needed, and can also anticipate potential setbacks or problems that may arise and use problem-solving strategies effectively.

Managing procedural distress and medical trauma

As part of the process of the illness or treatment, both children and their families are exposed to potentially traumatic experiences and may develop acute symptoms of anxiety or stress. The National Child Traumatic Stress Network (2001) suggests that up to 80% of children and their families may experience one or more traumatic stress responses after painful or distressing medical procedures. Between 15–20% of these children will suffer persistent stress reactions that negatively impact upon treatment adherence. These symptoms can be severe and distressing and can progress to symptoms similar to those seen in post-traumatic stress disorder (PTSD). They can also occur in a milder form, which would not meet diagnostic criteria for PTSD, and may be referred to as post-traumatic stress symptomatology (PTSS) or paediatric medical traumatic stress (Kazak *et al.*, 2006; National Child Traumatic Stress Network, 2001).

There is clear evidence in the literature in support of the benefits of good preparation for medically distressing procedures and the use of CBT in this process (Christie & Wilson, 2005; Duff *et al.*, 2012; Jaaniste *et al.*, 2007; Paediatric Psychology Network, 2010; Uman *et al.*, 2008).

Case example

Jenny, aged 9 years old, with vasculitis was referred for psychological intervention as a 'last resort' having refused to have an anaesthetic and undergo a necessary operation for her condition. Jenny had initially presented acutely to hospital, very unwell 8 months before and had needed surgery as an emergency. Following this she required further procedures and surgery but had become increasingly uncooperative, leading to this referral.

Assessment

The initial assessment revealed multiple fears Jenny had about the anaesthetic, and the operation. Jenny was very fearful of having a general anaesthetic, in part because of a fear of injections and needles and lack of understanding about the process of cannularisation. Jenny recalled clearly her past experience of being in pain and thinking she was going to die following post-operative complications. Her refusal to undergo further general anaesthetic was in part an attempt to prevent anything similar occurring again. She did

not trust the medical staff would do what they said and she believed they would trick her to get the operation done. These beliefs were not irrational or exaggerated, but rather were based on several specific incidents where she felt the staff had indeed ‘tricked’ her, and carried out procedures she had not been prepared for or had agreed to. These incidents included being told that the gas-based anaesthetic would be pleasant and taste of strawberry but it was neither; and the anaesthetist attempting to administer a pre-operative sedative covertly whilst Jenny was playing and being distracted by the play specialist, leading to Jenny kicking the member of staff when she discovered what was happening.

Jenny’s mum was aware that coercive methods had been used previously both by the medical team and herself due to the urgency of the procedure and the level of Jenny’s distress leading to her being so uncooperative. She was very anxious about how Jenny would react and behave towards medical staff at any subsequent admission. She was also concerned about the impact this was having on her relationship with Jenny. She feared that Jenny might be angry and perceive her mother as having let her down and not ‘protected’ her from the medical staff in whom Jenny had lost trust.

Jenny’s typical way of displaying fear or worry was to be short-tempered and unresponsive. These behaviours elicited frustration and little sympathy in the medical staff, which in turn did little to reassure Jenny or re-establish her trust in them.

At the point of referral Jenny had refused three further planned operations. On each occasion her levels of anxiety increased in anticipation of admission and during the admission, to the extent where she could no longer cope and the operation could not go ahead. Once she refused, her distress immediately reduced, which in turn reinforced avoidance as an effective coping strategy as well as reinforcing her fears about future operations.

Formulation

A fear of the general anaesthetic, a lack of trust in the medical staff, and previous negative experiences were formulated to have left Jenny with an incapacitating level of anxiety regarding future operations. The level of anxiety was perceived as unbearable and led to avoidance behaviours (i.e. the refusal to undergo future operations).

The intervention focused on validating Jenny’s fears and anger following her previous experiences. Establishing engagement and trust, and providing Jenny with a safe place to discuss her feelings about past operations and any potential future ones, were essential given Jenny’s history. A clear contract was established to reassure Jenny that the role of the psychologist was not to make her have the operation. Her initial reluctance to talk about her own thoughts and feelings was overcome by using her interest in animals to help her talk about thoughts and feelings associated with operations, as well as talking about what ‘other people’ might feel, think and do in the situation. Through this work Jenny was able to think about and list elements that would make future operations better and less frightening, and to clarify areas which she did not understand or had misperceptions about. Addressing her information needs in a developmentally appropriate manner increased her sense of control of her medical care.

Enrolling her mother as a co-therapist gave Jenny the opportunity to see that her mum was working with her and trying to support her. In addition by including Jenny’s mother in the sessions, her own concerns could be addressed. This is in line with the literature which emphasises the importance of preparing parents for medical procedures as well as working with children (Edwards & Davis, 1997; Jaaniste *et al.*, 2007; Kazak *et al.*, 2006).

Education about the proposed operation was shared along with visits to the ward, anaesthetic room, theatre and recovery room, and she was able to see and examine equipment. Jenny prepared a list of questions to ask relevant members of the medical team. During an appointment with her consultant she was able to ask her questions with her mother and clarify their concerns. This also reassured her that he would do his best to make sure his team would try to follow any plan agreed in future.

Once Jenny felt able to consider having her operation, CBT-based approaches for coping with procedure-related pain were used. Jenny and her mother were taught relaxation procedures which were also practiced at home. In addition positive self-statements ('I can do this'), clear rewards (for example, Jenny identified a post-operative reward that she and her mother would purchase once the operation had been done and she was able to go home) and visualisation (e.g. Jenny imagining herself managing the tasks prior to the operation successfully using the strategies she had been practicing, and imagining herself back on the ward after the operation) were also used. Jenny was actively involved in developing an 'Operation Day Schedule' which the medical team endorsed. Jenny was able to have this with her on the day of the operation so she knew exactly what was going to happen and when. She felt more in control, well informed about what would happen, why and when. The medical team reinforced Jenny's newly established trust in them by following what had been agreed and listening to and respecting Jenny and her mother's wishes.

Jenny's case provides support for the efficacy of CBT intervention in the reduction of procedural distress (Spirito & Kazak, 2006; Powers, 1999; Powers *et al.*, 2005), with engagement, exploring previous negative experiences, providing age-appropriate information, visiting the hospital, and cognitive-behavioural coping strategies being clearly useful. Edwards and Davis (1997) state that, through good preparation children can be helped to organise their thoughts, actions and feelings about an event, prior to it happening. It also enables mental rehearsal to take place and this in turn can enhance children's sense of control over a situation they may otherwise feel helpless in.

Symptom management – pain, fatigue and medically unexplained symptoms

There is a good evidence base for the effectiveness of CBT in the management of chronic physical symptoms and also for the emotional distress arising from symptoms. Cognitive behaviour therapy interventions have been shown to be effective in the management of pain (Cohen *et al.*, 2002, 2008; Spirito & Kazak, 2006) and specifically recurrent abdominal pain (Sanders *et al.*, 1994), and headache severity (Eccleston *et al.*, 2004) (see also Chapter 12 for the management of chronic pain). Cognitive behaviour therapy has also been shown to be effective with symptoms arising from chronic fatigue syndrome (Chalder *et al.*, 2002), the reduction of non-epileptic seizure activity (Goldstein *et al.*, 2010) and fatigue arising from multiple sclerosis (van Kessel *et al.*, 2008) as well as other medically unexplained symptoms (Deary *et al.*, 2007).

Cognitive behaviour therapy is also able to address the distress arising from the symptoms, particularly depression and anxiety, which can both exacerbate and perpetuate physical symptoms. This may unfold as in a cycle of avoidance of normal activities due to worries about experiencing pain or other symptoms, with consequences for self-esteem, coping and participation in pleasurable or rewarding activities. In the following example of a chronic presentation of medically unexplained symptoms, anxiety regarding

a recurrence of collapsing at school clearly became a maintaining factor in the presentation of collapses.

Case example

Following what was thought to be an acute viral illness, Anya, aged 14 years, missed several weeks of school due to fatigue, sleeping and eating poorly, and feeling faint. At the end of her first week back at school, Anya suddenly collapsed, hitting her head as she fell, and remained unresponsive for a few minutes. Staff at school were very concerned for Anya, and she was taken by ambulance to the local hospital. However, results from medical investigations were 'normal' and she was discharged. The following week, Anya returned to school, but experienced another collapse and was immediately sent home. She remembered this had been preceded by feeling very anxious in class as she had been feeling hot and 'light headed' when she had stood up to read her work. Over the next few months, a pattern emerged that when 'resting' at home, Anya remained well, but she became increasingly unable to leave the house to get to school as she often collapsed whilst getting ready in the morning.

Assessment of Anya's beliefs about her collapses revealed her severe anxiety about the reason for her collapses. Although medical tests had excluded a physical cause, her understanding (reinforced by the death of her grandmother the previous year) was that you could die if you collapsed. Anya was also particularly sensitive to the high levels of anxiety her collapse had generated at school, noting the drama of the ambulance crew arriving and the distress experienced by one of her friends, who commented how pale she looked ('like a corpse') and her teachers being clear she should only return to school when she was well as they did not have the staff resources to provide the necessary first aid for her. She revealed considerable anxieties about what would happen if she had another collapse at school as the teachers would be stressed and upset with her, and her friends would be too worried to stay friends with her.

Using a CBT framework formulation, it was possible to help distinguish physical factors which had possibly precipitated the initial collapse from the probable maintaining cycle of thoughts, feelings and behaviour perpetuating the collapses, and shifting the focus of attention from aetiology to rehabilitation. However, initially it was clearly important to carefully listen to and assess Anya's understanding and distress regarding her grandmother's death, and her own health, and link in with her parents and medical team to provide appropriate information about this.

A key aspect of intervention was in self-monitoring and raising awareness of the physical sensations preceding any collapses and any thoughts or feelings this generated. Anya was also asked to monitor her predictions about when she was most likely to collapse and what would happen as a result. Over time it was possible to help Anya see the link she had made between physical sensations (such as feeling hot) and her predictions of collapsing. It was possible through her diary monitoring to look at times when she had felt hot and yet not collapsed, and the strategies she had successfully utilised at these times. Through this, it was possible to both challenge her belief of a direct link between feeling hot and collapsing, and to develop a self-help plan (involving having a cool drink available, and using relaxation strategies) when she felt most vulnerable. It was also possible to de-catastrophise her fears of what would happen should she collapse, based on her repeated experience of collapsing without anything more terrible happening. This was also reinforced by a jointly written 'Guide to managing my collapses' plan, which was endorsed by everyone caring for Anya,

which involved staying calm, monitoring but not intervening, and allowing Anya some space to recover before just carrying on with her day (and therefore not needing to be taken to hospital or any other medical intervention).

Anya was able to make sense of the analogy of her brain being ‘like a computer’, and in control of her body, and that at times of severe stress (in this case, feeling hot and worrying this would lead to a dangerous event such as a collapse), her brain felt ‘overloaded’ and therefore panicked and ‘shut down’. Her body shutting down or collapsing was in a sense nothing more serious than a ‘rebooting’ of this computer. Monitoring the strength of her beliefs over time indicated a more strongly held belief of this analogy as she became increasingly confident that she always felt well after a collapse. The self-help strategies she developed helped detect when her body was starting to ‘overload’ and to take appropriate action to help her cope, including both physical action and cognitive self-talk, reinforcing that she now had a plan to help with her difficulty.

Medically unexplained symptoms

Cognitive behaviour therapy provides a useful framework for both understanding and managing medically unexplained symptoms (MUS). Without appropriate and timely intervention, MUS can become chronic in nature, involving multiple medical appointments in primary, secondary and for some also within tertiary care, as well as numerous investigations and tests. Many children and young people with MUS may well continue having symptoms which can become more entrenched into adulthood, with serious impact on their well-being, achievements and quality of life (Improving Access to Psychological Therapies, 2008). Medically unexplained symptoms often co-exist with symptoms of anxiety and depression, and a significant number of children meet the diagnostic criteria for a psychiatric condition (Husain *et al.*, 2007).

Summary

Cognitive behaviour therapy within a medical setting needs to be flexibly, creatively and sensitively used. There is evidence for its efficacy in its application in work with children and young people with chronic and life-limiting conditions. This chapter has provided examples in areas where CBT strategies can be effectively applied. Any application needs to consider the child or young person’s developmental level as well as social and cultural factors. Within the context of chronic and life-limiting conditions the child or young person’s current health needs are central in the application of CBT. It is also important to bear in mind the systems in place around the child or young person; the family, the medical setting and teams, school and other community agencies.

Although still in the early stages of implementation within paediatric care, the use of computer-based CBT interventions (such as ‘Stressbusters’, Abeles *et al.*, 2009) to support children with particular problems is a promising way forward. Children who are too unwell to travel regularly to appointments or those with more severe physical and motor-based communication difficulties who might find ‘talking’ sessions more of a challenge, can be supported to access help at a pace appropriate for them at home.

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Cognitive approaches to children with chronic pain

Ellen Trautmann

Introduction

Children with chronic pain (defined as *continuous* or *recurrent* pain persisting for at least 3 months) and their parents often report innumerable consultations with paediatricians and other health professionals. The children may have undergone multiple examinations including various forms of imaging and other diagnostic procedures and been subjected to diverse medical treatment strategies. Parents often report feeling helpless despite ‘doctor shopping’ and the children are frustrated due to lack of adequate pain management. The efforts involved in seeking professional help in chronic pain management are associated with high personal costs for children and their families and often with high economic costs for healthcare systems (Sleed *et al.*, 2005).

In recent years many studies have focused on the prevalence, appropriate diagnostic procedures and management of chronic pain in children. Various epidemiological studies underline the frequent occurrence of chronic pain in children and adolescents (Haraldstad *et al.*, 2011; Huguet & Miro, 2008). There is a wide range of prevalence rates for different chronic pain syndromes such as back pain, abdominal pain and headache (Martin *et al.*, 2007; Standford, 2007; van Gessel *et al.*, 2011, see Stinson & Bruce, 2009). Furthermore, recent findings emphasise the complexity of chronic pain and a strong association with other pain-related complaints, psychiatric symptoms such as anxiety and depression, sleep disorders, a variety of social impairments for the children and their families (perception and behaviour), and interference with leisure activities and school (absence from school, missed leisure activities, days off work for parents) (Bennett *et al.*, 2000; Haraldstad *et al.*, 2011; Knook *et al.*, 2011; Petersen *et al.*, 2006). Milde-Busch *et al.* (2011) demonstrate the importance of stressful experiences as a moderating factor. Diagnostic and management techniques for pain should take into account the complexity of chronic pain in order to facilitate adequate and effective interventions.

Chronic pain appears to be a complex problem involving a number of important biological, psychological and social factors that shape the pain experience (biopsychosocial model). Whereas *biological factors* including the physiological correlates, genes, age, gender, temperament and development influence *chronic pain perception*, *psychological factors* such as fear and anxiety, previous pain experience and learned pain behaviour as well as *social factors* (e.g. cultural influences, parent/grandparent/sibling pain behaviour, peer reactions and school-related influences) also play important roles (see Twycross, 2009). Pain syndromes are often associated, in particular, with familial patterns of illness behaviour.

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Based on the multiple factorial causes of chronic pain and its maintenance, a multi-disciplinary, multi-modal approach incorporating psychological as well as (for example, in migrainous attacks) pharmacological and/or physical interventions is recommended. Psychological interventions can be valuable in the efficient management of chronic pain and its impact on children and their parents. Cognitive behaviour therapy (CBT) offers a particularly promising, practical and cost-effective approach with positive results in the long term (Eccleston *et al.*, 2002; Trautmann *et al.*, 2006).

This chapter focuses on the common chronic pain syndromes of primary headache and abdominal pain. Chronic pain is defined as persistent or recurrent ‘with possible fluctuations in severity, quality, regularity, and predictability. Chronic pain can occur in single or multiple body regions and can involve single or multiple organ systems’ (American Pain Society, 1999).

Psychological assessment of chronic pain

A comprehensive assessment is an essential first step in the successful management of chronic pain, taking into account the frequency, intensity and duration. However, psychopathological factors, quality of life, familial factors (such as family disputes and parental enhancement of pain behaviour) and the influence of other social problems are important as well (Bruijn *et al.*, 2009; Gassmann *et al.*, 2009; Mazzone *et al.*, 2005). Collaboration with paediatricians is advantageous during the diagnostic process, which may require extensive, though hopefully not unnecessary medical examinations.

Initially, the pain history of the patient should be explored (see also Stinson, 2009a). Information obtained about the pain should include onset, characteristics, the patient’s subjective experience of the pain, its frequency, duration and intensity, the patient’s level of knowledge about modifying factors, the impact of the pain on daily functioning, further associated symptoms, parental behaviour and previous management strategies (see also Table 12.1). In addition, pain diaries are essential. They round off the reported subjective

Table 12.1 Assessment of chronic pain.

Symptom description	Duration, intensity, frequency, location of pain
Identified triggers	Exploring triggers for the onset of pain
Course of chronic pain	Characteristics of pain (onset, duration over time, etc.)
Behavioural aspects	Learning factors (see also Table 12.2)
Pain processing	Cognitions, emotions and behaviour in pain situations
Accessory symptoms	Other pain symptoms, psychopathological symptoms such as anxiety, depression, etc.
Role of stress and personality	Exposure and handling of stress
Clinical investigations and diagnosis	Medical clarification/already completed diagnosis/medication intake/acquaintance
‘Self-therapy’	What measures already tried?
Pain in family members	Are there other family members with chronic pain?
Personal situation/ Environment	Role of family members/partners/friends and perspectives of these persons Kindergarten/school-related aspects

view of pain occurrence and possible associated factors and can be used to assess pain frequency, duration and intensity. They can also provide an accurate picture of activities associated with pain. The use of diaries minimises the bias of recall errors (van den Brink *et al.*, 2001). There are numerous types of pain diary for different pain syndromes and for different age levels. Interest in electronic diaries is also increasing, partly because of promising results for children's compliance in maintaining them (Stinson, 2009b). Whenever possible, young patients should maintain their own diaries, which should be subsequently discussed with them by the attending healthcare professionals. Monitoring pain attacks could be useful in detecting possible triggers of unexpected and uncontrolled pain, in learning to manage pain and in analysing individual behaviours.

Self-reports and parental reports

Self-report measurements provide information about the subjective perception of pain and its influence on several areas of life. Verbal rating scales, graphical/visual analogue scales, colour-coded scales (for pain localisation in the body) and numerical instruments are frequently used to measure the degree of pain (for an overview, see Stinson, 2009a). Such scales are often included in pain diaries to facilitate daily record-keeping and can be used to measure treatment effectiveness.

Pain-related factors include a wide range of variables. First, pain catastrophising should be assessed as an empirically validated moderator (Crombez *et al.*, 2003). Such increased attention to pain-related thoughts in children should be carefully analysed as a maintaining and moderating factor, particularly with regard to cognitive behaviour therapy. The child's pain narrative is important in understanding his behaviour and cognition (e.g. understanding of chronic pain), but parental catastrophising of their child's pain as well as parental well-being and behaviour are equally important (Caes *et al.*, 2011; Goubert *et al.*, 2006). Psychopathological symptoms or disorders can also be assessed in structured clinical interviews, but the subjective self-reports and parental reports should likewise be taken into account in this regard. Several questionnaires are available for assessing depression, anxiety or other psychopathological aspects (e.g. CBCL-4/18, Achenbach, 1991; SDQ, Goodman, 1997; SCAS, Nauta *et al.*, 2004; Spence, 1997; STAI for children, Spielberger *et al.*, 1973; CDI, Saylor *et al.*, 1984). For the assessment of pain-related disability and its impact, Hershey *et al.* (2001) recommend the PedMIDAS for headache, which looks at the effects on specific areas of the child's life. Finally, Kernick and Campell (2008) and Palermo (2000) point to the weakness of methods of examining the impact of pain on social functioning and suggest some well-validated questionnaires for assessing children's functioning (Functional Disability Inventory, FDI, Walker & Greene, 1991; Child Health Questionnaire, CHQ, Landgraf *et al.*, 1996). Health-related quality of life is frequently impaired in children with chronic pain and should also be examined as a component of psychological well-being (Bruijn *et al.*, 2009), using an instrument such as the Pediatric Quality of Life Inventory (PedsQL, Jastrowski *et al.*, 2011). Palermo *et al.* (2011) focus on sleep disorders as an important aspect of chronic pain, so an account should also be obtained of the child's sleep pattern.

Diagnosticians should focus not only on the children's subjective view of their pain, but on the view of the parents as well. The therapeutic implications of differing perceptions of symptoms and their severity (Bennett *et al.*, 2000; Haraldstad *et al.*, 2011; Kröner-Herwig

et al., 2009) need to be considered. To measure operant learning, a detailed discussion about parent behaviour in pain situations should be explored during history-taking. Instruments such as the Illness Behaviour Encouragement Scale (Walker & Zeman, 1992) can also be useful in the assessment of parental reinforcement of illness behaviour.

Cognitive behaviour therapy in chronic pain

Appropriate CBT techniques include a broad range of validated interventions such as relaxation techniques and hypnosis, behavioural or cognitive interventions, cognitive-behavioural strategies and biofeedback. These techniques focus on self-management and development of active coping strategies in association with pain. However, the manner of implementation of these interventions depends on the age of the child or adolescent, the degree of parental involvement and the presence of any other diagnosed complaints. For example, if an 8-year-old boy with recurrent headaches receives positive reinforcement from his mother only in pain situations, the therapy should include both child and parent. However, in the case of a 17-year-old girl with migraines, particularly when they occur in situations involving examinations and school or peer stress, the main focus of attention in therapy should be the adolescent.

Treatment goals in CBT-based pain management should focus on the identification and modification of possible triggers, amplifiers and maintenance factors for pain in both child and parental behaviour, the development of adequate pain management techniques and strategies for the child's well-being (including reducing pain experiences), and the enhancement of self-efficacy.

Every therapeutic intervention should include education about the nature of chronic pain and the development of an individual model of the specific chronic pain syndrome from the biopsychosocial perspective. Table 12.2 presents a summary of well-validated treatment strategies for managing chronic pain.

Cognitive behaviour therapy for the management of headaches

The prevalence of recurrent chronic headaches increases with age (Heinrich *et al.*, 2007); girls report headaches more often than boys (van Gessel *et al.*, 2011). The diagnostic criteria for primary headaches are specified according to the International Headache Society (2004).

The most frequent type of primary headaches in children and adolescents are migraines and tension-type headaches. The most common categories of migraine are migraine with and without aura. Migraine without aura is characterised by headache and associated symptoms such as nausea/vomiting, photophobia or phonophobia, whereas migraine with aura is usually additionally accompanied or preceded by focal neurological symptoms. A typical characteristic of migraine attacks is their unilateral location with moderate to severe intensity and a pulsating quality. Migraine patients report severe exacerbation due to physical activity and attacks lasting 4–72 hours. Tension-type headaches are described as a mostly oppressive pain with mild or moderate intensity which lasts from minutes to days and appears in bilateral locations (without nausea/vomiting, photo-/phonophobia).

The negative consequences of headaches are often underestimated; they can be a serious health problem with adverse effects on well-being (Sillanpää & Aro, 2000). So it is important to identify effective treatment strategies for preventive and acute pain management.

Table 12.2 Intervention techniques for chronic pain in CBT.

Intervention strategy	'Main facts'
Education	Information about the biopsychosocial model of the specific chronic pain, reducing anxiety about serious disease, including the role of pain diary, role of medication intake, behavioural analysis of pain and pain behaviour (including associated factors such as self- and parental expectations, pressure to achieve, beliefs about the pain), possible triggers, the role of stress, pain experiences of parents and other relatives, reinforcement of positive coping experiences through the children themselves and parents; in cases of sleep problems: education about sleep hygiene
Relaxation/hypnosis	Progressive muscle relaxation (e.g. as per Jacobson, 1939), autogenic training or hypnosis for reducing tension and physical symptoms of stress directly in pain situations for pain reduction and preventively to minimise stress reactions
Biofeedback	Immediate feedback about body functions (measuring physiological indicators) such as muscle activities, heart rate, skin temperature; learning to raise awareness and modulate body functions, e.g. reducing muscle tension/warm or cold hands, and, if possible, enhancing relaxation, with, for example, thermal biofeedback, cephalic artery biofeedback (especially for migraine patients)
Behavioural strategies	Identifying operant factors for pain, e.g. special attention from parents/grandparents/siblings/friends/at school (Helpful questions: Does the pain occur at particular times? Do other people notice when the pain is present? What makes the pain better or worse? Does the behaviour of others affect the pain? Is the occurrence of pain linked to stress/problems? Does the pain stop the child from engaging in any activities?)
Cognitive techniques	(1) Identification of pain-related thoughts (e.g. worry about pain getting worse, resignation) and further dysfunctional beliefs (e.g. well-being) with self-monitoring (e.g. complete diaries and questions to pain catastrophising), subsequently evaluation of these thoughts and cognitive restructuring with positive thoughts/self-instruction (2) Coping with stress – identifying stressors and reactions to stress-related thoughts and substituting more adequate cognitions (with fewer stress reactions) (3) Problem solving – stepwise learning for adequate problem solving which may be associated with tension, stress and in consequence pain (4) Elaboration of attention in pain situations and training to handle attention 'far away' from pain itself back to positive daily activities (external) or positive/neutral visualisations (internal) (distraction strategies)
Pain management in acute pain situation e.g. migraine attacks	Specific preparation for acute pain situation and training of different distraction strategies (such as visualisations, telling fairy tales, interesting videos, relaxation techniques or breathing exercises) These strategies are also effective in preparing for painful procedures. With regard to such procedures, one should be aware of giving accurate, but simple information to the child (including where it will be done, who will be involved, etc.) and giving some control (for example, let the child decide something), but avoid lying, focusing excessively on pain or negative feelings
Parent behaviour	Joint elaboration of familiar or school-related factors of maintaining and supporting pain experience, training to modify parental behaviour (verbal/non-verbal)

Case example

Andy, a 9-year-old boy, suffered from numerous migraine attacks, resulting in 40 days of absence from school in the last 6 months. He was a very shy and anxious child whose lack of friends caused problems for him. His parents reported headache histories on both sides of the family, and his mother also suffers migraine attacks. A detailed history revealed an anxious personality and worries about health, illness and death. Andy's parents described him as a 'thinker'. Migraine attacks occurred at least twice a week, resulting in absence from school, so that he was frustrated about missing his lessons and anxious about receiving bad marks. His mother worked in a hospital and frequently talked about patients with severe diseases. Thus, Andy was frequently afraid that there was a dangerous underlying cause for his migraines, so that he suffered anxiety and frustration. In addition, his parents' attitude towards pain and the use of medication sent the clear message that 'taking medication could produce medication-induced headaches and be detrimental to the body!' Thus, neither Andy nor his mother used medication to alleviate migraine attacks. Figure 12.1 shows the biopsychosocial model which was discussed with the family

During therapy, education about pain was provided and Andy and his mother engaged in critical reflection on her behaviour in association with Andy's pain and her own pain behaviour (model function) and the consequences for Andy's behaviour in pain situations. The effect of her description of her work experiences with her family was also explored and she modified her behaviour appropriately. Furthermore, the 'family topic' of taking medication during migraine attacks and the risk of medication overuse was analysed. Andy learned to identify possible triggers for his attacks using his diary and to manage his personal stress situations, e.g. using relaxation techniques. Subsequently, the anxiety/pain-related perceptions during attacks and in preventing stress situations were discussed and reworked. For some attacks, he monitored classical symptoms before the migraine onset (agitation, specific indisposition) and used strategies such as relaxation, 'being calm', positive self-instruction and sometimes the use of medication. In addition, Andy tested distraction methods in migraine situations, including the visualisation of pleasant holidays, concentration on his pet dog, and positive self-instruction.

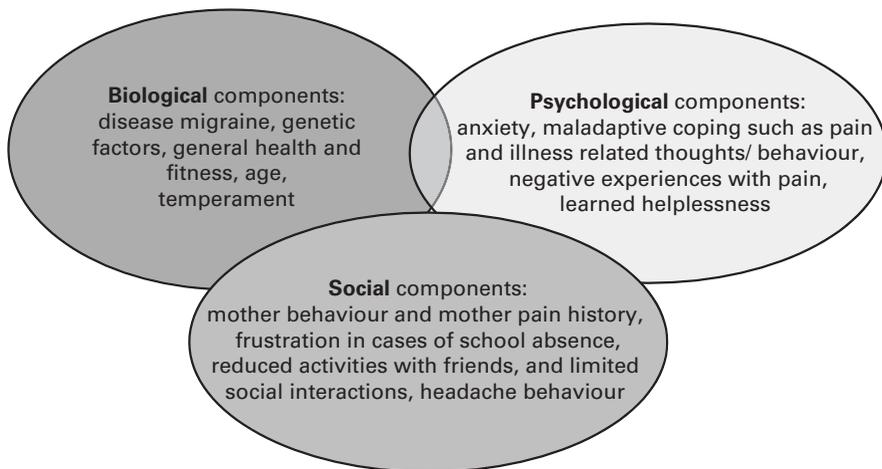


Figure 12.1 Biopsychosocial model of Andy's migraine.

After 5 months Andy and his parents reported subjective improvement which was confirmed by diary data. One year after therapy began, his report card revealed significantly reduced absence from school and more contact with his classmates.

Cognitive behaviour therapy in chronic abdominal pain

Chronic abdominal pain is more often reported by girls than by boys. Current epidemiological research shows that chronic abdominal pain occurs primarily between the ages of 13 and 15 years (van Gessel *et al.*, 2011). In most cases the abdominal pain is not caused by serious organic pathology (Blanchard & Scharff, 2002). If the abdominal pain in childhood is not treated, this increases the likelihood of psychopathological symptoms in adolescence and adulthood (Campo *et al.*, 2001).

Chronic abdominal pain is regarded as present when it occurs on at least three occasions over a 3-month period and interferes with daily activities. Abdominal pain without underlying causes is called functional abdominal pain; this includes functional dyspepsia, irritable bowel syndrome, abdominal migraine and functional abdominal syndrome (Subcommittee on Chronic Abdominal Pain, 2005). Sometimes patients and parents are distressed by the failure to find an organic reason. This needs consideration because of its effect in maintaining pain.

Case example

Cindy is a 13-year-old girl who has suffered from functional abdominal pain for 4 years. Her parents are worried about her significant school absences and are insecure in their own behaviour in dealing with their daughter's pain. Her mother reported that she herself had suffered for many years from migraines associated with stress situations.

Differential diagnosis revealed frequently occurring abdominal pain (eight reports of pain over a 4-week period), infrequent headaches (tension type), and depressive symptoms associated particularly with the chronic pain (which did not fulfil the DSM-IV criteria for depression, but consisted mainly of dysfunctional pain-related cognitions: 'Now the abdominal pain is beginning again, so I'll have a bad day and won't be able to do anything', 'What is the cause?', 'Others have no health problems – why am I so weak?' and pain catastrophising). Furthermore, Cindy exercised only rarely and was often absent from physical education classes because of abdominal pain. The pain diary showed an association between (planned) unpleasant activities in school and stress situations resulting from emotional stress (such as the death of her aunt) and various activities. Initially, parental behaviour appeared to play only a secondary role; her parents did not reinforce the pain behaviour and were happy about 'no-pain days'. However, it transpired they did sometimes display helplessness, worry about the high frequency of abdominal pain, and anxiety about organic causes despite comprehensive clinical investigation. Moreover, they did not manage their own pain behaviour adequately, only using medication and not relaxation. In cooperation with Cindy and her parents, the therapist developed a biopsychosocial model of their pain and moderating factors.

In the education session, information was provided about functional abdominal pain and the impact of factors such as pain-related thoughts sometimes reinforced by helplessness/anxiety reactions of the parents, stress situations and bodily reactions. More adequate behavioural strategies that were less anxiety-focused were discussed jointly with the parents

and the teenager. Cindy learned relaxation techniques and applied relaxation in her daily routine to prevent stress reactions. She also learned to identify negative, pain-related thoughts and to modify them in a less catastrophising manner, particularly in acute pain situations. She was encouraged to engage in more physical exercise, with different sports activities, such as dancing in a girls' group with regular performances being tested for positive benefit. Cindy was very interested in CBT techniques and motivated to test the strategies in daily situations. After a few weeks the frequency of episodes of functional abdominal pain decreased (two in 4 weeks), as did the pain-related thoughts and absence from school.

Effectiveness of cognitive behaviour therapy in chronic pain

Empirical results support the positive outcomes of CBT in chronic pain management. Three meta-analytic work groups (Eccleston *et al.*, 2002; Herrmann *et al.*, 1995; Trautmann *et al.*, 2006) have demonstrated the efficacy of CBT in primary headaches, particularly with regard to reducing the frequency, intensity and duration of headaches, as well as the long-term stability of the outcomes. Information about non-pain-related symptoms was not obtained. More studies should consider the use of combined medication intake and CBT on outcomes, including other symptoms (psychopathological or other pain syndromes).

In addition, Weydert *et al.* (2003) as well as Huertas-Ceballos *et al.* (2008) found in their meta-analytic reviews that cognitive behavioural therapy can be a useful intervention for children with recurrent abdominal pain. In general, future investigators undertaking randomised trials should focus on better study designs with adequate control groups and comprehensive outcome measures for different chronic pain syndromes (e.g. back pain).

New computer-based settings in cognitive behaviour therapy for chronic pain

In recent years there has been growing interest in self-help programmes for extending access to effective and preventive CBT. A variety of new forms are under discussion, including CD-ROMs, video conferencing and online programs.

For example, Velleman *et al.* (2010) identified four studies relating to chronic headache and/or abdominal pain which evaluated CD-ROM or Internet-based CBT in chronic pain with promising results. Owing to the lack of skilled CBT professionals, especially in rural areas, many pain sufferers have no access to this form of therapy. Thus these new options represent an innovative, cost-effective alternative to traditional face-to-face therapies. In particular, adolescents may benefit from these approaches owing to their greater appeal. However, there are also disadvantages. For example, it is more difficult for the therapist to detect alarming symptoms such as indications of suicidal behaviour or symptoms of organic illness (e.g. abdominal pain: weight loss, fever). The diagnostic process is based primarily on self- and parental reports via questionnaires and diaries as well as telephone interviews. Technical problems can delay communication with the patient. In addition, some children and adolescents, especially those with low self-esteem may not have the courage to admit that they do not understand CBT techniques, with therapists/trainers dependent on reported understanding of the patients. Parent involvement may be required which means they themselves should be willing and able to use such technology.

Conclusion

Chronic pain is a frequent occurrence in childhood and adolescence. High prevalence rates, additional psychopathological symptoms and social impairment have been documented particularly for headaches and abdominal pain. Chronic pain affects many aspects of daily living and family functioning, and exacerbates pain-related disability. Recent decades have brought substantial advances in diagnosis and treatment. The available meta-analyses of headache pain and therapeutic studies on abdominal pain support the effectiveness of CBT for these complaints. There is a need for further epidemiological research as well as on therapy for other chronic pain syndromes such as back pain and fibromyalgia.

Most researchers focus on a biopsychosocial perspective for comprehensive pain diagnosis and management, which in most cases implies a combination of medication, psychotherapy and physical exercise, sometimes with parental involvement. This model requires good collaboration between different healthcare professionals (paediatrician, psychologist, physical therapist and the client).

Computer-based CBT self-help interventions are new, efficient and cost-effective methods for reaching children and adolescents, especially those in geographically remote settings. Their attractiveness to children and young people increases compliance.

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Section 5

Applications in specific child and adolescent syndromes

Cognitive behaviour therapies for youth with autism spectrum disorders

Jeffrey J. Wood and Benjamin C. Schwartzman

Affecting as many as one out of every 91 children, autism spectrum disorders (ASDs) are among the most common childhood neurodevelopmental conditions (Centers for Disease Control, 2007, 2009; Fombonne, 2005; Kogan *et al.*, 2009). Core deficits in social communication and idiosyncratic language and behaviour cause impairment in adaptive functioning throughout development (Howlin *et al.*, 2004). Comorbidity with other childhood psychiatric disorders (e.g. anxiety) is extremely high. Although cognitive behaviour therapy (CBT) treatment approaches for addressing core autism symptoms and related comorbidities in individuals with ASD have not been studied as thoroughly as CBT treatments for other types of youth mental health disorders, important work has been ongoing in the past decade and evidence is building that CBT may be an efficacious practice for some school-aged youth with ASD.

Core autism symptoms are wide-ranging and multi-faceted, spanning from specific social-cognitive impairments such as limited theory-of-mind skills, to pragmatic language deficits, to repetitive behaviours such as insistence on non-functional routines. The core symptoms tend to be stable over time (Matson & Horovitz, 2010; Matson *et al.*, 2010; Moss *et al.*, 2008) and resistant even to some intensive interventions (Dawson *et al.*, 2010). The majority of individuals diagnosed with ASD in childhood, even those with high intelligence, have substantial morbidity in adulthood, such as limited employment and no close friends (Barnhill, 2007; Eaves & Ho, 2008; Marriage *et al.*, 2009). However, individuals on the autism spectrum who meet criteria for the less-severe diagnoses of Asperger syndrome or pervasive developmental disorder, not otherwise specified (PDD-NOS) have better overall prognoses than those with categorically higher levels of core autism symptoms (i.e. those meeting full DSM-IV-R criteria for autistic disorder; American Psychiatric Association, 2000) (see Cederlund *et al.*, 2008; Helt *et al.*, 2008; Howlin, 2003; Schwartz *et al.*, 2009). For example, Szatmari *et al.* (2009) found that although all children with ASD demonstrated mixed to poor outcomes, those with less severe symptoms (e.g. Asperger syndrome) had relatively better outcomes in social relationships and daily living skills. A fundamental goal in the field of autism research is the discovery of methods that substantially mitigate the primary symptoms of ASD (Green *et al.*, 2010; Lord & Corsello, 2005; McDougle *et al.*, 2005; Reichow & Wolery, 2009; Spence & Thurm, 2010) as well as its comorbidities (e.g. anxiety, depression).

While behavioural and talk-based therapies are widely used in community settings for school-aged youth with ASD (Hess *et al.*, 2008), the evidence base for many such

treatments (e.g. social stories; social skills training) is weak. Compared with other types of interventions for young children with autism (e.g. applied behaviour analysis; Dawson *et al.*, 2010; Hayward *et al.*, 2009; Vismara & Rogers, 2010), there are few well-designed studies of behavioural or talk-based therapies for core autism symptoms in school-aged children (cf. Rao *et al.*, 2008).

With the exception of atypical antipsychotic medication, no medical or psychosocial treatments for core autism symptoms in school-aged children with ASD meet American Psychological Association (APA; e.g. Chambless & Hollon, 1998) guidelines for possible efficacy (Scahill & Boorin, 2011; Simpson, 2005; Smith, 2008). Even atypical antipsychotics have had negligible effects on core social-communication symptoms (McDougle *et al.*, 2005; Posey *et al.*, 2008; West *et al.*, 2009). Hence, there is considerable need for evidence-based practices that can make a clinical impact in this population.

Service use and costs are high for school-age children with ASD in the community, in spite of the lack of evidence for many frequently used interventions. Even among 6- to 10-year-olds with mild ASD, the average child uses about seven *current* services/interventions (e.g. therapies, medications), with around 50% of affected children currently using behavioural interventions at a given time; 50% also using other skills-based interventions (e.g. social skills); and 50% using psychiatric medication (Green *et al.*, 2006; see also Thomas *et al.*, 2007). A literature review and synthesis conducted by Ganz (2007) of all available data – primarily from the USA, UK and Europe – finds that between ages 7 and 12, *annual* direct treatment costs (e.g. for therapy and medication) averages around US\$ 6000 per child, with an additional annual direct care cost for special education and respite care of around US\$ 16 000 per child. Ganz estimates an average lifetime per capita cost (including direct and indirect costs) of autism at US\$ 3 160 384. High annual costs have been found even for high-functioning school-aged youth with ASD (Knapp *et al.*, 2009). Thus, over the course of childhood, even high-functioning children often receive hundreds of hours of community treatment of questionable efficacy and substantial cost.

Cognitive behaviour therapy offers one approach that may be well-suited to addressing core autism symptoms and comorbid disorders in higher functioning school-age youngsters. Cognitive behaviour therapy is among the most successful treatment modalities for many childhood psychiatric disorders, achieving large, clinically significant outcomes in paediatric OCD, anxiety and disruptive behaviour disorders, even in studies with active or placebo control groups (Pediatric OCD Treatment Study (POTS) Team, 2004; Webster-Stratton *et al.*, 2004; Wood *et al.*, 2006). In fact, CBT has already been effectively adapted to treat collateral behavioural and emotional problems in school-aged children with ASD (Chalfant *et al.*, 2007; Reaven *et al.*, 2009; Sofronoff *et al.*, 2005, 2007; Wood *et al.*, 2009b).

Children with high-functioning ASD by definition have average to above average intellectual abilities (e.g. Loveland & Tunali-Kotoski, 2005). Basic research on the cognitive profile of high-functioning children with ASD suggests that uptake of basic concepts about thought, emotion and their connection with behaviour fundamental to the CBT paradigm is within their capabilities. These children often have unique profiles of language ability, information processing, and attention; contrary to common speculation, their capacity for abstract reasoning is varied rather than absent (Minschew *et al.*, 2002; Scott *et al.*, 1999; Williams *et al.*, 2006). The cognitive-therapy aspects of CBT for comorbid behavioural and emotional problems have been accessible to the school-age ASD population by modifying delivery of the concepts to match children's cognitive strengths and accommodating

deficits (Anderson & Morris, 2006; Attwood, 2003a, 2004a; Reaven & Hepburn, 2003; Sze & Wood, 2007, 2008).

Of the well-designed CBT studies for individuals with autism, results are encouraging but still preliminary. This chapter offers an analysis of the extant CBT treatment literature for youth with ASD to highlight promising strategies and draw preliminary conclusions regarding current CBT programmes and practices.

Herein, we focus on interventions that (a) emphasise discussing an individual's thoughts, feelings and solutions, and do not merely use language for modelling, prompting or skills practice (e.g. eliminating interventions like traditional social skills training from the review), (b) are conducted with school-aged children or older diagnosed with ASD (including those with comorbid mental health problems, such as anxiety), (c) attempt to reduce the symptomatology of ASD (and comorbid mental health problems, when applicable), and (d) use evidence-based measurements to evaluate outcome assessments.

Modifications to cognitive behaviour treatments for youth with autism spectrum disorders

Because of the core features of autism (e.g. rigidity; idiosyncratic language use and understanding), it cannot be assumed that extant CBT manuals tested with typically developing youth (not diagnosed with ASD) will entail the best treatment approach for youth who are on the autism spectrum. In CBT programmes used in recent clinical trials with youth with ASD, modifications to standard CBT procedures have been made to address one or more of the following characteristics of ASD: impaired attention span and motivation for topics outside of a circumscribed range of interests; impaired abstract language understanding; difficulty with generalisation of coping skills; and breadth of impaired symptom domains (e.g. significant problems in both social and emotional areas). Four strategies that have been used in some of these clinical trials to address these characteristics, intended to enhance the efficacy of CBT interventions for individuals with ASD, are now described.

Strategy 1: Use children's special interests to enhance motivation and therapeutic alliance in cognitive behaviour therapy

The careful use of special interests in CBT can prove instrumental in working with children with ASD (Anderson & Morris, 2006; Attwood, 2003b, 2004a). Therapeutic involvement and motivation is markedly enhanced when children are allowed to discuss their special interests and preoccupations. Attwood (2003b) has observed increased social reciprocity and appropriate conversational skills among children with ASD who share a special interest with one another. Koegel and Egel (1979) and others have noted that a key obstacle for children with autism is a lack of motivation to engage in conventional behaviours as well as poor attention span for activities outside of their narrow domain of interests. Incorporating special interests into treatment sessions can counteract these obstacles (Baker *et al.*, 1998).

A typical, non-adapted cognitive restructuring session focusing on the nature of fearful thoughts in difficult situations may hold little interest for most youth with ASD. However, when choosing examples and metaphors that stem from the child's special interests, such sessions can become interesting, memorable and useful for children. In our clinical work, we have drawn heavily upon children's special interests (Sze & Wood, 2007, 2008).

For example, we inaugurated a child as a 'fifth member' of the television show *Mythbusters*, which focuses on using the scientific method to test folklore and dubious

claims (a perfect vehicle for conveying the CBT technique of challenging irrational thoughts). This sort of metaphor can be expanded throughout each therapy session to maintain interest and motivation. In this case, the Mythbuster metaphor helped this child overcome his significant attentional difficulties. His interest was maintained by posing Socratic questions about what a Mythbuster would think about and do in specific situations from his hierarchy. Cognitive behaviour therapy ‘thought bubbles’ were added to these pictures as a vehicle for developing insight and skill with cognitive restructuring: ‘The Mythbusters wouldn’t believe that the kids at recess would tease me if I messed up in handball – they would test it out so they could bust the myth!’ Often, use of special interests as a therapy metaphor is especially motivating when humour is incorporated. In this example, humour was added by posing far-fetched scenarios related to this child’s hierarchy tasks, for example, ‘What if someone told you that kids like to talk about tomato soup when they have a playdate – what would the Mythbusters say? . . . Boring, right?! Okay, that myth is busted! Let’s think of some more fun things to talk about on a playdate!’ Attwood (2004b) also offers several excellent examples.

Overall, incorporating special interests in therapy sessions can be a crucial adaptation for children with ASD to make CBT techniques accessible. Regulating access to special interests can also be an excellent operant conditioning technique. However, in the end, many special interests can be socially detrimental and require some suppression and broadening.

Strategy 2: Use visual aides to adapt cognitive behaviour therapy techniques for children with autism spectrum disorders

In traditional child CBT, psychoeducation on thoughts, feelings and their interplay is generally started in the first or second session, laying the groundwork for enhancing emotion regulation and changing behaviour. However, ASD symptoms often make it difficult to present these key CBT concepts in the traditional manner, requiring modifications to the protocol. Consistent with the work of various clinical researchers in the ASD field (Anderson & Morris, 2006; Attwood, 2003b, 2004a; Hare, 1997; Reaven & Hepburn, 2003), therapists can facilitate the comprehension of CBT concepts by reducing emphasis on abstract spoken language and emphasising visual materials as a bridge to understanding CBT concepts. For instance, visually appealing pre-printed materials illustrating CBT concepts may be used (cf. Sofronoff *et al.*, 2005). Expanding upon typical cartooning strategies used for some aspects of CBT for youth (Kendall, 1994), the therapist and child can draw scenarios that feature cartoon characters corresponding to special interests (Sze & Wood, 2007, 2008) and then use these drawings to explore a CBT concept (e.g. what icky thoughts would she or he have; what kind of calm thoughts could help him or her?). In order to facilitate the development and correction of core schemata, children must be able to access the cognitive therapy and psychoeducation aspects of CBT. Emphasising multiple learning modalities and offering visual anchors for each concept can improve accessibility for many schoolchildren with ASD.

Strategy 3: Psychoeducation about autism spectrum disorders can be fruitfully incorporated in cognitive behaviour therapy

In most child CBT programmes, the initial sessions entail psychoeducation on the symptoms of the target disorder (e.g. anxiety) and how different problems the child has encountered are due to the disorder (Piacentini *et al.*, 2002). This psychoeducation is

then linked with the goals of the CBT programme (to overcome the barriers posed by the disorder). The disorder is then conceptualised as external to the child and not what the child is 'really like,' allowing the child to align with the therapist and family and 'fight back against' the disorder (cf. Piacentini *et al.*, 2002). External attributions of problems are generally linked with improved self-esteem and mental health. The metaphor of autism or AS as an external 'advisor' often giving bad advice by telling the youth to engage in certain symptoms can be a useful way of initially helping children grasp the idea that ASD symptoms can be maladaptive and are worth learning to overcome or cope with in some ways. As with other CBT techniques, the development of these concepts helps the child develop more accurate mental models – in this case, of themselves and their relation to the world – that can increase motivation to participate actively in therapeutic procedures and engage in appropriate behaviours both during CBT and potentially into the future. Psychoeducation also offers a clear description of what specific problems are going to be targeted (to help families become aware of symptoms and monitor for change).

Strategy 4: Parent training may be a critical component of effective cognitive behaviour therapy for youth with autism spectrum disorders

Given the problems with generalisation in ASD and the emphasis on parent education by ASD-specific interventions (National Research Council, 2001), parental involvement is especially important in the delivery of psychosocial interventions for children with ASD (Reaven & Hepburn, 2003, 2006; Sofronoff *et al.*, 2005). Preliminary evidence suggests that parent involvement in CBT for youth with ASD is linked with better outcomes (e.g. Puleo & Kendall, 2011; Sofronoff *et al.*, 2005). As a result of adjunctive parent training, parents can act as interventionists at home (e.g. to facilitate exposure to feared stimuli or behavioural activation), use a rewards system to maintain a high level of motivation for therapeutic tasks, set up and monitor playdates, and prompt children to develop more self-help skills that build towards independence (e.g. Drahota *et al.*, 2011; Sofronoff *et al.*, 2005; Wood *et al.*, 2009a, 2009b). Parents can also be instrumental in working with the school to ensure that individualised social and educational programming occurs if needed.

Psychiatric comorbidity in autism spectrum disorders

Based on numerous descriptive studies of comorbidity in samples of youth with ASD published over the past decade, comorbid disorders have been found to occur at much higher rates in youth with ASD than typically developing youth as well as youth with other mental health conditions (de Bruin *et al.*, 2007). For example, as compared with the 1–5% of typically developing youth that experience symptoms of social anxiety, results from a number of studies indicate that 20–57% of children and adolescents with high-functioning ASD exhibit clinical levels of social anxiety (Kuusikko *et al.*, 2008; Muris *et al.*, 1998; Simonoff *et al.*, 2008). Also, among youth with ASD, other anxiety disorders, attention deficit problems, disruptive behaviour and depressive disorders are very common and often increase even more during adolescence.

A clear relationship between the presence of comorbid disorders and symptoms and more overall impairment and distress in youth with ASD illustrates the importance of efficacious therapies that aim to relieve such symptoms. Regardless of whether these symptoms are only a manifestation of autism or reflect separate psychiatric disorders (Wood & Gadow, 2010), reduction of symptoms is probably beneficial.

A review of cognitive behaviour therapy programmes for individuals with autistic spectrum disorder

In this section, we review CBT treatment studies for youth with ASD and comorbid anxiety and mood problems; comorbid disruptive behaviour problems; and core autism symptoms. Each subsection outlines the nature of the problem, the relevance to individuals with ASD and the extant CBT treatment literature.

Anxiety and mood disturbance

In recent years, adaptations of CBT for youth with ASD and comorbid anxiety disorders have been studied in numerous clinical trials, with promising results. A randomised, controlled trial conducted by Sofronoff *et al.* (2005) evaluated two variants of a 6-week group therapy format CBT programme that worked with children with Asperger syndrome to develop strategies for emotion recognition and cognitive restructuring. Even though participants were not formally screened for a diagnosis of an anxiety disorder at pre-treatment, and the study did not include any in vivo exposure elements, children in the CBT groups showed declines in anxiety symptoms via parent-report measures relative to children in a waitlist group. Similarly, Chalfant *et al.* (2007) conducted a randomised, controlled trial to evaluate a 12-week group-therapy CBT intervention for children with comorbid anxiety and ASD, finding reduced symptoms of anxiety for the immediate treatment group in comparison to the waitlist group. However, diagnostic post-treatment interviews were administered by the study therapists, as opposed to independent evaluators blind to treatment assignment. Reaven *et al.* (2009) conducted a study of 33 children (aged 8–14 years) with ASD and comorbid anxiety disorders, assigning them to either an immediate CBT in group-therapy format or a waitlist based on the order of enrolment (the first ten children to complete baseline assessments were placed immediately into active treatment). Psychometrically sound questionnaires measuring child-reported and parent-reported anxiety symptoms were used as outcome measures; but only according to the parent-report questionnaires did youth in the immediate treatment group improve more than the waitlist group. The lack of improvement in the child-reported symptoms may have been due to low child-reported symptoms at pre-treatment, but it is also the case that anxiety self-reports have not been separately validated for children with ASD and may prove challenging for them to use given the focus of such measures on internal emotional states. White *et al.* (2010) have developed a promising cognitive behavioural treatment programme targeting both social skills and anxiety in adolescents, 12–17 years old, with ASD. The Multimodal Anxiety and Social Skills Intervention (MASSI) consists of three elements: individual therapy sessions (12 one-on-one sessions with a therapist which allow for individualisation of the programme), group therapy sessions (five sessions which provide low-stress settings where new skills can be practiced with peers), and parental involvement (parents take on more of a coaching role in assisting with exposure tasks and homework assignments). Randomised controlled trials will be useful in testing the efficacy of this model.

Wood *et al.* (2009b) randomly assigned 40 children (aged 7–11 years) with ASD and diagnoses of an anxiety disorder to either a waitlist or to 16 sessions of a manualised, individualised CBT programme plus two school consultation sessions. Coping skills training (e.g. identifying ‘calm’ thoughts), in vivo exposure elements (facing fears hierarchically

both at school and at home), and parent- and teacher-training components were incorporated into the CBT programme used in this study to promote generalisation of coping skills across settings. Despite a high level of comorbidity, the degree of remission of anxiety diagnoses in children randomised to CBT were comparable to the results of other studies treating childhood anxiety in typically developing patients (see Barrett *et al.*, 1996; Wood *et al.*, 2006). Most outcome measures used in this study had large effect sizes and, by post-treatment or follow-up, over half of the children in the experimental group experienced remission of all anxiety disorders.

All signs point towards CBT being a promising treatment for anxiety in the population of youth with ASD, including other pilot work using case studies or AB designs (e.g. Lehmkuhl *et al.*, 2008; Sze & Wood, 2007, 2008). As noted above, intervention effects are shown to be superior when CBT incorporates parent training (Sofronoff *et al.*, 2005; Puleo & Kendall, 2011).

Disruptive behaviour problems

Children with ASD often present with comorbid disruptive behaviour disorders such as oppositional defiant disorder (ODD) (de Bruin *et al.*, 2007; Muris *et al.*, 1998). Nonetheless to our knowledge, only one full-fledged CBT programme that involves working directly with children on coping skills (as opposed to purely behavioural interventions such as parent training), for use with youth with ASD and concurrent conduct problems, has been studied in a clinical trial. Sofronoff *et al.* (2007) conducted a randomised controlled trial of CBT to address anger management for children aged 10–14 years diagnosed with Asperger syndrome. These individuals were then assigned to either a waitlist group or immediate CBT treatment group consisting of six, weekly, 2-hour sessions for both child and parent. The first of the six sessions helped children identify and measure positive emotions of happiness and relaxation, which, the children were then asked, in the second session, to compare with feelings of anger. Also in the second session, children were introduced to a metaphor of having a ‘toolbox’ which held happiness and relaxation ‘tools’ that they could use to fix their anger. Session three focused on physical happiness and relaxation tools (e.g. listening to music, going for a run, jumping on a trampoline, etc.), while providing children with ‘social tools’ (e.g. receiving reassurance and affection from others’ words and gestures) and ‘thinking tools’ (e.g. challenging the legitimacy of feared outcomes). The fourth and fifth sessions focused on the concepts of both ‘emotion thermometers,’ that could help participants measure the varying degrees of their own emotions, and positive ‘antidotes’ that could be used to cope with angry thoughts and emotions. The manualised therapy concluded with a sixth and final session which focused on designing individualised coping plans for anger management. According to parent reports, the immediate intervention group experienced a significant reduction in the amount of anger episodes after treatment relative to the delayed treatment group, and maintained these results in a 6-week follow-up. In qualitative post-treatment interviews, participants’ teachers reported that participants were using strategies from the CBT programme to cope with their anger in the classroom. Though the results from this study are noteworthy, parent and teacher reports were the only outcome measures used. Although this preliminary study had certain weaknesses (e.g. not enumerating cases with a specific diagnostic algorithm), the intervention methods are unique in that they were specifically developed for ASD, and should be investigated further.

Autism symptoms and social impairment

Bauminger (2002, 2007a, 2007b) has conducted three open trials of CBT focused on remediating social deficits of school-aged children with ASD. The first of these studies (Bauminger, 2002) involved a 7-month intervention, conducted at school, in which teachers presented 13 CBT lessons (e.g. 'How to cooperate with a friend,' 'How to initiate a conversation with a friend,' etc.), 3 hours per week, to dyads consisting of a target child and a typically developing peer (N = 15). The pairs of children had the opportunity to engage in activities that they both enjoyed. Parents were also asked to support children in learning and implementing coping and social skills by helping children practice skills on the phone and during playdates. Results based on structured naturalistic observations at school showed that the treated children doubled their number of positive social interchanges with peers following intervention. Participants were also rated post-treatment by teachers as having improved in certain positive social skills on the Social Skills Rating Scale.

The second CBT study (Bauminger, 2007a), an open trial for 19 youth with ASD aged 7–11 years old, slightly modified the original by including various additional assessment measures. Although significant improvements in positive social behaviour (specifically, initiating and responding to others with eye contact; and sharing) were observed with a corresponding reduction in 'low-level' social behaviours (e.g. repetitive behaviours) from pre- to post-treatment, children's self-reports of loneliness, social acceptance, and other aspects of self-worth did not change. A 4-month follow-up assessment confirmed the maintenance of treatment effects, establishing the intervention as a treatment model to be further evaluated.

Bauminger (2007b) evaluated a third CBT intervention in group format, using an AB design (N = 26; 11 participants from the 2007a study and 15 newly recruited participants of similar age) with 3–6 children per group (at least half of whom were typically developing), which focused on learning through within-group interactions. In addition to the play-ground observations used in the previous studies, a classic theory of mind task and a sorting task were added as outcome measures. While there were substantial improvements made in social behaviours from pre- to post-treatment, results did not generalise outside of the group therapy sessions. However, results also showed that target children improved from pre to post-treatment on the 'Strange Stories' assessment of theory-of-mind as well as the 'Sorting Task' assessment of executive functioning, warranting further controlled trials research. Of course, given the open-trial format of this study, diagnosticians could not be blinded, but these are still potentially important performance-based outcomes that have rarely been used to assess outcome in studies of CBT in children with ASD. Like many group therapy-based 'social skills interventions' (see Rao *et al.*, 2008), social behaviours generally improved within the therapy group but failed to apply to social relationships outside of the programme.

Using the same sample of children who participated in the CBT treatment described above in the Wood *et al.* (2009b) clinical trial for children (ages 7–11 years) with ASD and comorbid anxiety disorders, a standardised social impairment measure for autism (the Social Responsive Scale, SRS, Constantino & Gruber, 2005) was completed by parents of the final 19 participants in the Wood *et al.* (2009b) study at baseline and post-treatment/post-waitlist and 3-month follow-up assessments (published in Wood *et al.*, 2009a). In this study, nine of the children with ASD were randomised to CBT and ten children were randomised to a waitlist condition. With regard to parent-reported autism symptoms on

the SRS, a statistically significant difference emerged between the CBT and waitlist groups at post-treatment/post-waitlist, with a medium to large effect size. Treatment gains were maintained at 3-month follow-up.

The most advantageous CBT treatments have been presented to the middle-childhood (and possibly early adolescent) age group in high-dose, intensive, individualised formats that emphasise conceptual training on others' perspectives and emotional states in natural social settings. However, because these outcomes have been moderate in magnitude, there is still room for improvement in these treatment methods. Furthermore, additional research on these programmes is needed to confirm their benefits with more robust research methods.

Cognitive behaviour therapy in autism treatment: future directions

A number of CBT programmes for youth with ASD have been developed and formally described in treatment manuals. However, many questions remain given that even the most methodologically sophisticated of these clinical trials does not offer the level of definitive support that is provided for existing CBT treatments for other aspects of youth psychopathology such as anxiety disorders or conduct problems (cf. Chambless & Hollon, 1998). For example, a number of CBT treatment programmes have been found efficacious for other types of childhood disorders using robust study methods such as active and pill-placebo control designs, multiple sites, and independent evaluators, which offer stronger support for the efficacy of CBT in disorders such as anxiety and OCD (Pediatric OCD Treatment Study (POTS) Team, 2004; Walkup *et al.*, 2008). For CBT treatments targeting core autism symptoms, further refinement of treatment and pilot testing should be conducted before initiating large clinical trials. Focused attention must be given to developing robust methods that overcome the generalisation and maintenance problems exemplified in most social skills training research.

This body of research offers some clues for developing future treatment programmes that focus on the social communication domain in ASD. First, social skills learning paradigms should be tailored to the individual's symptom presentation and individual differences; second, hypothetical scenarios and role plays should be practiced in vivo so that generalisation and maintenance can occur; third, measurement strategies need to use validated instruments rated by independent evaluators – such as the Autism Diagnostic Observation Schedule (ADOS, Lord *et al.* 2002), Autism Diagnostic Interview–Revised (ADI–R, Le Couteur *et al.* 2003) and the Childhood Autism Rating Scale (CARS, Schopler *et al.*, 1998) – to better assess core autism symptoms and address the extent of generalisation and maintenance. Using evidence-based symptom-count diagnostic instruments as primary outcome measures, rather than focusing primarily on features associated with the disorder (e.g. conduct problems; self-regulation), represents an important way forward for the field to better assess the impact of CBT on the core aspects of ASD, which ultimately must remit to some extent to improve long-term prognosis in affected individuals.

Conclusion

The CBT intervention programmes that have been developed for youth with ASD show merit for addressing autism and its comorbidities. However, due to methodological limitations of the existing studies, the evidence base is not definitive in its support of these treatment programmes at this time. This in no way reflects weaknesses of the

programmes, but instead indicates the need for further evaluation to determine both strength of effects and the breadth and depth of the clinical efficacy of CBT for this population. We have made several suggestions elsewhere for possible treatment elements that could improve upon the existing CBT programmes for youth with ASD (Wood *et al.*, 2011). Youth with ASD have substantial psychiatric morbidity and an uncertain prognosis in terms of future adaptation in adulthood. Given the individual challenges faced by individuals with ASD, as well as the economic impact of the typical (largely non-empirically based) treatment regimen allocated to youth with ASD, further development and evaluation of CBT treatments for this population is a worthwhile pursuit.

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Eating disorders

Beth Watkins

Introduction

The eating disorders anorexia nervosa (AN) and bulimia nervosa (BN) and their variants are a major source of physical and psychological morbidity. These disorders share behavioural and cognitive symptoms related to dysregulation in eating behaviour; distorted cognitions related to eating, weight and shape; and a wide range of adverse physical, psychological and social consequences. Despite the fact that the majority of eating disorder cases have their onset in adolescence and often persist into adulthood (Currin *et al.*, 2005), there is little research that has studied the efficacy of psychotherapeutic interventions for adolescents with eating disorders.

Clinical descriptions

Anorexia nervosa

Anorexia nervosa (AN) is characterised by severe weight loss and a refusal to maintain body weight, accompanied by abnormal cognitions leading to an over-evaluation of the importance of shape and weight. A combination of restriction of food intake, self-induced vomiting, laxative abuse, and excessive exercise can contribute to weight loss and the maintenance of a low weight, whilst preoccupation with shape and weight, dissatisfaction with shape and weight and an intense fear about gaining weight or getting fat accompany the overvalued ideas about the importance of shape and weight. Although amenorrhea is a diagnostic criterion for anorexia nervosa, it is of questionable relevance and recent studies suggest that there are no meaningful differences between individuals with AN who do and do not menstruate (Gendall *et al.*, 2006; Watson & Andersen, 2003).

Whilst anorexia nervosa in children has been shown to be strikingly similar to that in older adolescents and adults (Cooper *et al.*, 2002), it is important to note some fundamental developmental differences. For example, children with anorexia nervosa often fail to maintain hydration (Irwin, 1981), and any weight loss, regardless of premorbid weight, during periods of expected growth should be treated with concern, even if the child remains within the healthy weight range (Rome *et al.*, 2003).

Bulimia nervosa

Bulimia nervosa (BN) is an eating disorder characterised by recurrent episodes of over-eating in which the person experiences a loss of control, coupled with accompanying

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compensatory behaviours to avoid weight gain, such as self-induced vomiting, laxative abuse, diuretic abuse or periods of fasting (Russell, 1979). Weight and shape concern leading to an over-evaluation of body shape and weight are core features, as in the case of anorexia nervosa. Those who suffer from bulimia nervosa usually experience high degrees of guilt and shame. Compared with anorexia nervosa, bulimia nervosa can be difficult to detect, because sufferers tend to be around average weight.

Referrals for bulimia nervosa to child and adolescent eating disorder services tend to be older adolescents. Bryant-Waugh and Lask (1995) reported, however, that 10% of their referrals to a specialist child and adolescent eating disorder clinic comprised cases of BN with an onset below the age of 14 years. Cooper *et al.* (2002) reported five cases of premenarcheal BN, in a consecutive series of 88 children diagnosed with an eating disorder, whilst Bryant-Waugh and Lask (2007) reported a child aged 7 who received a clinical diagnosis of BN.

Evidence base for cognitive behaviour therapy in adolescents with eating disorders

Anorexia nervosa

One of the main limitations in the evidence base for treatment of anorexia nervosa in children and adolescents is that many young people receive a treatment package consisting of concurrent treatments (for example, family therapy, nutritional counselling, group interventions, individual therapy, keyworking etc.), so it is extremely difficult to assess which specific treatment accounts for outcome. In the adult literature, a small number of studies have been conducted to investigate the efficacy of CBT in anorexia nervosa, one of which included adolescents and young adults (Ball & Mitchell, 2004). Whilst these studies have found that CBT is moderately effective, there is insufficient evidence to recommend cognitive behavioural therapy over other therapies. A recent study of 167 adolescents aged 12–18 years who had been diagnosed with AN evaluated the effectiveness of three treatments (inpatient, specialist outpatient and general outpatient) (Gower *et al.*, 2007). The specialist outpatient treatment consisted of a manualised package of CBT plus parental feedback, parental counselling, dietetic therapy, multi-modal feedback and monitoring. There were no differences in outcome between the three treatments. However, it was not possible to fully evaluate the contribution made by the CBT component of the specialist outpatient treatment, for a number of reasons. It was not clear whether the study therapists were trained CBT therapists, what CBT model was used or how treatment fidelity was assessed and a variety of other treatments were used.

Bulimia nervosa

There is reasonable support for the effectiveness of CBT for BN in adults (Hay *et al.*, 2009). A small pilot study of a version of CBT–BN adapted for adolescents with binge eating syndromes (BN, eating disorders not otherwise specified (EDNOS) and binge eating disorders) reported good outcomes post-treatment, suggesting that CBT may be a promising intervention in adolescents (Schapman-Williams *et al.*, 2006). One randomised controlled study (Schmidt *et al.*, 2007) compared family therapy with cognitive behavioural guided self-care in adolescents with BN or related disorders, using an adapted version of an adult manual (Schmidt & Treasure, 1997) previously tested in adults with BN

(Perkins *et al.*, 2006). Whilst the cognitive-behavioural guided self-care showed earlier improvement in binge eating, there were no overall differences at outcome between the two treatment modalities. Nevertheless, a significant number of young people (28%) chose not to participate in the study as they did not want their family to be involved, which suggests that there is a need to offer the option of individual therapy to young people (Schmidt, 2008). Pretorius *et al.* (2009) assessed the feasibility, acceptability and clinical outcomes of an internet-based CBT package (Overcoming Bulimia online, Williams *et al.*, 1998) for 101 adolescents with BN or EDNOS. They found significant reductions in eating disorder symptomatology at both 3 and 6 months from baseline, suggesting this may be a useful first-line treatment for adolescents with BN.

Summary of the evidence base

Whilst there is some support for individual CBT approaches in adolescents with BN, this is not so in AN. Indeed, the evidence base for CBT for AN in adults is limited and in adolescents, is very much in its infancy. Nevertheless, eating disorders represent a good example of the way abnormal thoughts and behaviours combine to result in physical and social impairment; thus, in theory, cognitive behavioural approaches could provide an effective strategy for treating these disorders (Gowers & Green, 2009). Further research is necessary in order to explore this idea.

Cognitive behavioural theory

Garner and Bemis (1982) proposed a cognitive behavioural model of anorexia nervosa, based on the principles of Beck's (1975) cognitive theory of depression. They suggested that at some stage in the pathogenesis of the illness, causal factors converge and cause the sufferer to believe that it is absolutely essential to be thin. Maintenance of low weight and fear of loss of control over eating are then established as core beliefs, and the 'overvalued ideas' of the importance of weight and shape can account for the sufferers' behaviours. The typical behaviours associated with eating disorders, such as exercise, vomiting and using laxatives, serve as negative reinforcement to the removal of the aversive stimulus of fear of fatness (Garner & Bemis, 1982).

Slade (1982) suggested that a need for control is central to the development and maintenance of AN, and is manifested in dieting. The disorder is then perpetuated by the positive reinforcement the sufferer gets from succeeding in dieting, and the negative reinforcement gained through fear of weight gain and avoidance of other difficulties. This results in an intensification of the dieting coupled with further weight loss, which serves to maintain the disorder.

Fairburn *et al.* (1999) proposed a cognitive behavioural theory of the maintenance of anorexia nervosa, which suggests that a need for control is at the core of the disorder, but that the influence of concerns about weight and shape is an important maintaining factor.

This maintenance model proposes that attempts to restrict eating are reinforced through three main feedback mechanisms with the result that the disorder becomes self-perpetuating. First, dietary restriction enhances the sense of being in control, i.e. success in restricting food intake positively reinforces the sufferer's sense of being in control. Then aspects of starvation encourage further dietary restriction, i.e. physiological and psychological changes can promote further dietary restriction by undermining the sufferer's sense of being in control.

For example, increased feelings of hunger due to insufficient food intake may be perceived as a threat to the sufferer's control over eating (Fairburn *et al.*, 1999). Third, extreme concerns about weight and shape encourage dietary restriction, particularly in cultures where it is common for people to judge their self-worth in terms of weight and shape. This process is culturally specific and prominent in most cases seen in Western societies.

This theory has a number of strengths, in that it synthesises earlier theories (Garner & Bemis, 1982; Slade, 1982), while providing a new CBT framework with an integration of its component parts. It is sufficiently specific to generate testable hypotheses.

More recently, Fairburn *et al.* (2003) have proposed a 'transdiagnostic' theory of eating disorders. They suggest that AN, BN and EDNOS share the same distinctive psychopathology and, based on evidence from longitudinal outcome studies (Fairburn *et al.*, 1995; Sullivan *et al.*, 1998), that individuals with AN, BN and EDNOS move between diagnostic categories over time. They further suggest that the maintenance of AN, BN and EDNOS in certain individuals is driven by one or more features: 'clinical perfectionism', core low self-esteem, mood intolerance and interpersonal difficulties (Shafran *et al.*, 2002).

Developmental changes occurring during puberty can prove difficult to negotiate in young people already vulnerable to the development of an eating disorder. They face the challenge of adjusting to biological and physical changes, developing relationships, coping with increased responsibility, becoming independent and developing an identity. Physical changes in girls include a rise in the average proportion of body fat and a rise in body weight. Girls in middle childhood have a mean proportion of body fat of 8% and this rises to 22% after puberty (Tanner, 1989). In addition, the period of maximum growth usually occurs between the ages of 11 and 13 years, during which time body weight rises by about 40% (Tanner, 1989). Whilst boys also experience this weight gain, much of it is accounted for by an increase in muscle tissue. A neurodevelopmental model of AN which includes consideration of both the biological changes and the psychosocial transitions faced by young people as they go through puberty suggests that, during puberty, the rigidity of those vulnerable to AN may be challenged by change, resulting in increased vulnerability to dysregulation in relevant biopsychosocial systems (Connan *et al.*, 2003).

In summary, predisposing factors including individual vulnerabilities, general environmental influences and environmental influences related to dieting, weight and shape, lead to the development of core beliefs and assumptions, which, when activated by a critical incident, result in the development of eating disordered thoughts and behaviours (see [Figure 14.1](#)). In young people these thoughts and behaviours are maintained by a number of factors, including behavioural factors, starvation factors, family factors, social factors, emotional factors and factors related to avoidance (see [Figure 14.2](#)).

Assessment and case formulation

Initial assessment

The initial assessment provides an opportunity to begin to engage with the young person and their family. A comprehensive assessment should consist of the following components:

- Current eating disorder symptoms (including eating and activity behaviours, purging behaviours, and eating, weight and shape concerns) and their impact on family, school and social functioning.

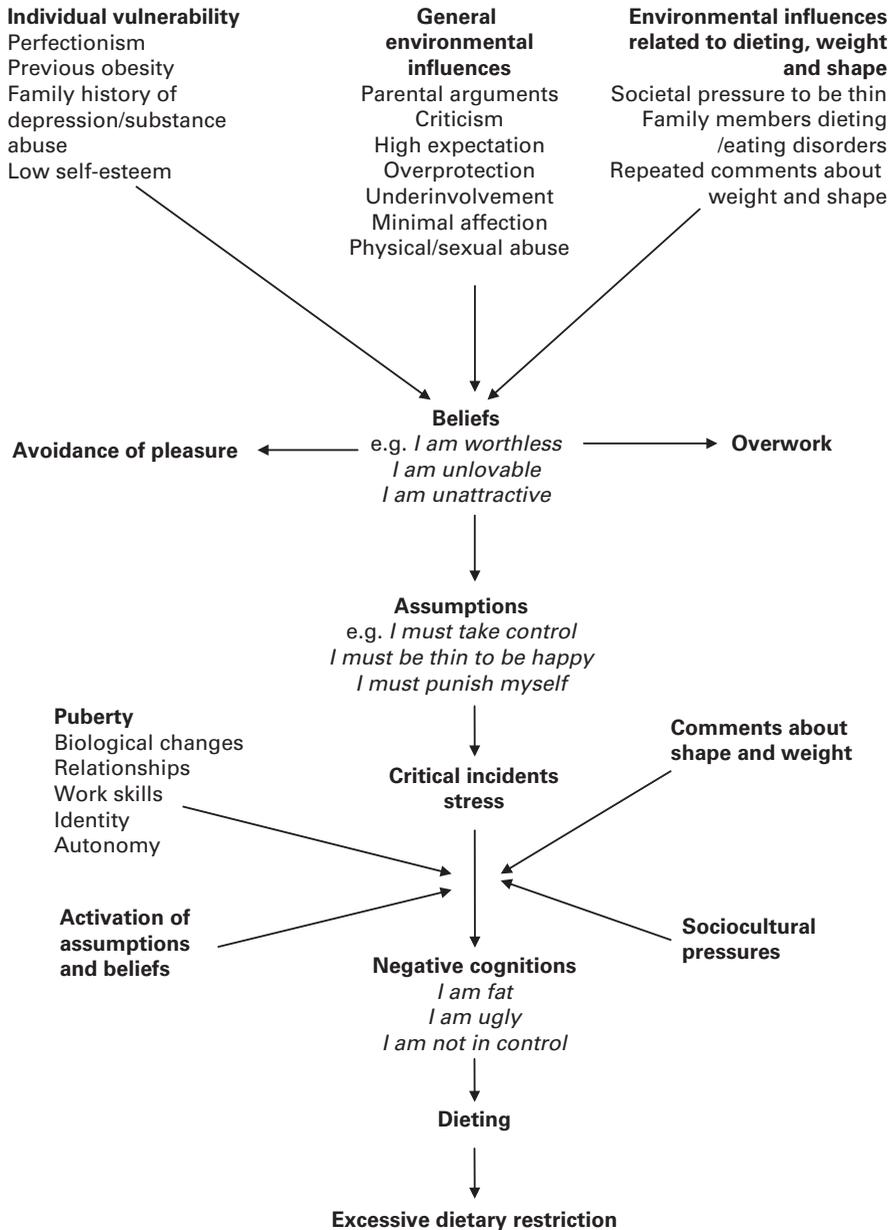


Figure 14.1 Cognitive model for development of eating disorders; early experience (from Stewart, 2004, pp. 363–364).

- History and development of the eating disorder (including weight and eating history and development of concerns around eating, weight and shape).
- Comorbid disorders and associated problems (including depression, anxiety, obsessive-compulsive disorder, self-harm, drug and alcohol use); general emotional and behavioural difficulties.

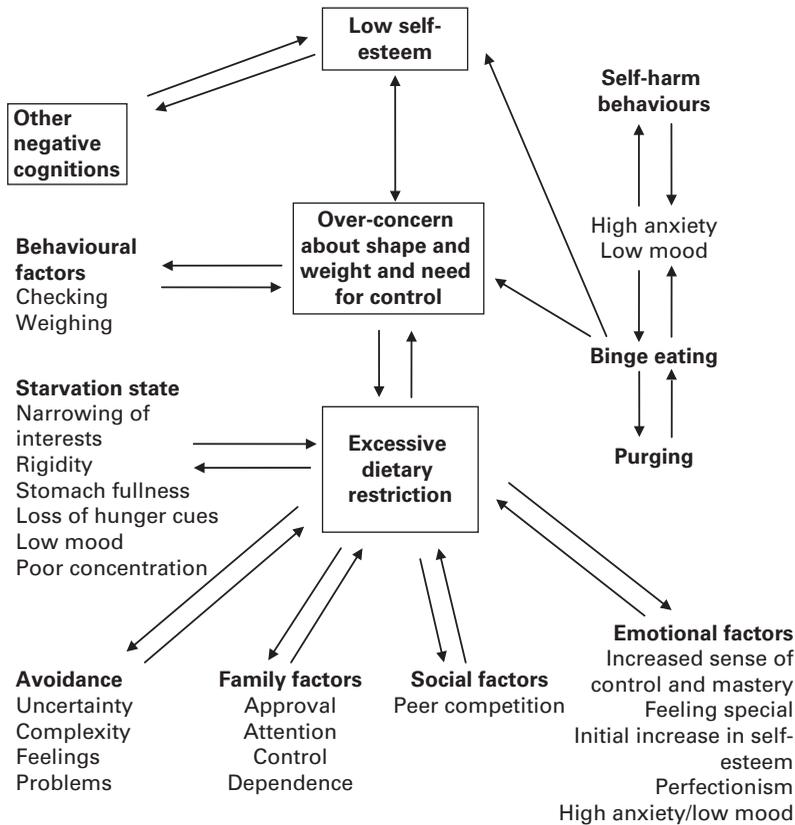


Figure 14.2 Maintaining factors in adolescent eating disorders (from Stewart, 2004, pp. 363–364).

- Physical health (including weight, height and menstrual history, and any physical investigations indicated).
- Family assessment (including family background, current or historical mental health problems in the family, impact of eating disorder on family, family attitude to their child’s difficulties, parent’s relationship, level of family support, family’s confidence in addressing their child’s difficulties).
- Developmental history (including child development, life events, parent–child relationships, history of abuse or neglect).
- Educational history and current functioning.
- Social functioning (including past and current peer relationships).
- Strengths (including those of the young person, their family, school, peer group and any other protective factors).
- Standardised questionnaires and/or interviews (for assessment and evaluating outcome) including measures that assess specific eating disorder symptomatology and measures that assess related comorbid and associated difficulties.

During the course of the assessment, it is helpful to track a recent example in the context of a CBT framework, identifying the trigger for the event, and plotting the sequence of events

including thoughts, feelings, behaviour and physiological responses. Throughout the assessment, it is important to begin to identify maintaining factors and to look for themes that might suggest underlying rules for living that may be driving the maintenance of the difficulties.

Case formulation

It is not necessary to produce a detailed formulation at the assessment – this can be overwhelming for the young person. However, it is useful to produce a brief formulation in the assessment as this can convey to the young person and his or her family that the therapist has gained an understanding of the difficulties thus creating some hope that change is possible. The case formulation should:

- Provide some understanding of the current difficulties and the relationship between them.
- Draw on psychological theory.
- Be developed collaboratively with the young person.
- Not be too complex.
- Be considered a work in progress and present ideas rather than the absolute truth.
- Incorporate positive strengths and abilities.

Additional considerations when assessing suitability for cognitive behaviour therapy in young people with eating disorders

Physical considerations

Unlike other disorders of childhood and adolescence, young people with eating disorders often present in a highly compromised physical state. Not only is it important to address issues related to their current physical state, but also the associated risks for their longer-term physical development.

Effects of starvation

Effects of starvation should be considered when assessing for suitability for CBT. Starvation appears to have a significant effect on cognitive functioning, with impaired concentration, alertness, comprehension and judgement being observed in those who are in a state of semi-starvation (Garner & Garfinkel, 1997). In addition, semi-starvation leads to increased preoccupation with food.

Clinician stance

Many young people are ambivalent about recovery from an eating disorder. It is important that the clinician takes a curious stance and thinks with the young person about the pros and cons of change without applying pressure to do so.

Engagement and motivation

As with other disorders of childhood and adolescence, it is important to consider who is motivated for the young person to make change. It is not unusual for the motivated party to be the parents or carers, and often the young person does not think that change is necessary, but rather that the problem is that everyone else thinks there is a problem. It is important to assess whether the young person is motivated to make change and whether he or she wants

to play an active role in effecting this change, when considering whether CBT may be an appropriate intervention. The young person and their parents or carers may have different expectations about change. For example, a parent might expect their son or daughter to stop being dissatisfied with their shape and give up all eating disordered behaviours very quickly, or, conversely, might hold the expectation that nothing will work and therefore nothing will change. It is of utmost importance to work with parents' or carers' motivation, as they will invariably be involved in their child's treatment in one way or another.

Involvement of parents

There are a number of reasons why the involvement of parents is important in supporting young people with eating disorders when they engage in a course of CBT. Most importantly, it allows parents to take responsibility for some of the behavioural aspects of the treatment that the young person may not be ready or able to take responsibility for immediately. Much of the desired behavioural change in eating disorders is related to eating and behaviours during mealtimes. Whilst some young people may be able to take responsibility for this behavioural aspect of the treatment, it is important to consider the age of the young person, the severity of the eating disorder and how socially limiting the current eating behaviour is, when considering how involved the parents should be. It is usual for parents to take responsibility for change in eating behaviour at the beginning of treatment, with a view to a gradual transition of responsibility back to the young person over the course of treatment.

In addition, involving the parents allows the therapist to identify their expectations and views about healthy foods, activity levels and social and developmental norms. Where these views are not conducive to making the behavioural changes necessary to recover from an eating disorder, the therapist has the opportunity to explore and resolve different expectations and underlying views, in order to reach a collaborative agreement on what behaviour changes may be necessary. Parents often lack confidence in being able to help their child to change their eating behaviours. Having the support of the therapist and clinical team to guide them allows parents to gain confidence in their ability to support their child in making these changes.

Treatment

Beginning treatment

It is important to be transparent about the therapy process, explaining when confidentiality has to be broken and why. It is useful to explain to the young person and their parents that there are likely to be some parts of treatment that are 'non-negotiable', such as being weighed. Often, young people are highly anxious about being weighed – this is something that can be worked through by exploring the negative thoughts that are associated with being weighed. Recognising the personal experiences that the young person brings to the therapeutic relationship allows the therapist to balance being the expert with being able to learn from the young person. Being interested in the young person, having a desire to understand their experience and believing that you can help are all factors that contribute to a good engagement with the young person.

The initial stage of treatment focuses on supporting the young person to re-establish normal eating patterns, and, in the case of anorexia nervosa, regain weight. Depending on the diagnosis and the severity of the eating disorder, the extent of the family role in this

initial stage of treatment may vary. For example, the family of a young adolescent with anorexia nervosa may be offered family-based treatment, whilst the role of the family of an older teenager with bulimia nervosa may be to support the individual CBT treatment.

Goal setting

It is important to identify goals for treatment as early in the process as possible. The young person may easily be able to identify things that they would like to change and these may not all be related to eating, weight and shape. For some young people it is extremely difficult to identify a goal that would directly contribute to their recovery from an eating disorder, so the therapist should take a motivational approach to explore any ambivalence about making change. Therapists should also ensure that they are transparent about there being some goals that they are unable to collaborate with the young person on, such as losing weight or maintaining an unhealthy low weight. The therapist can clearly and empathically explain the reasons why he or she is unable to collaborate on this goal, as they are aware of the consequences to physical health of low weight, and work with the young person to find collaborative goals that they can work on together.

Psychoeducation

Psychoeducation can be a helpful tool in the engagement process and will also be used throughout the course of therapy. Offering an ‘information meeting’ for the young person and their family at the beginning of the treatment process can be a useful method of delivering general information about eating disorders, and giving all members of the family an opportunity to ask any questions they may have. The young person and their family can be given written materials to take home and read, and can be encouraged to use a highlighter pen to identify further information they may need or questions they would like to ask.

Motivation

Motivation to make change is made up of two parts – desire to change and confidence that one can make change. Thus motivation to change should be elicited from the young person, rather than imposed upon them. Motivational interviewing (Miller & Rollnick, 2002) can be a powerful tool in enhancing the young person’s intrinsic motivation to change by exploring and resolving ambivalence. As motivation can fluctuate significantly from day to day and even moment to moment, a motivational approach should continue throughout the course of treatment. It can be useful to measure motivation (desire and confidence) on a 0–10 scale at the beginning of each session – this can help the therapist to gauge whether they first need to attend to enhancing motivation in the session.

The young person and their therapist can use these ratings to look back over changes in motivation throughout the course of therapy, which in itself, can be motivating.

When taking a motivational approach, it is important to recognise and accept confusing and contradictory thoughts that the young person may be having, rather than trying to persuade the young person to make change by stressing the benefits of change, as this can increase resistance. Resistance to change suggests that the therapist may be assuming greater readiness to change than the young person feels, and is a sign that the therapist may need to spend more time working with motivational strategies with the young person, by identifying or reviewing and mobilising the young person’s intrinsic values and goals.

Motivational techniques

Pros and cons of change

The young person makes a list of the advantages and disadvantages of changing or maintaining the eating disorder. This allows the young person to consider the potential value of change, and often young people will discover that the majority of the advantages of maintaining the eating disorder provide only short-term, rather than long-term, benefits.

Friend or foe letters

The young person writes two letters to the eating disorder; one to the eating disorder as a friend and one to the eating disorder as an enemy. This can enhance motivation by enabling the young person to reflect on how the eating disorder hinders them in their life (Serpell & Treasure, 2002). This technique can also strengthen the engagement with the clinician, as the clinician acknowledges that there are also aspects of the eating disorder that the young person values. For younger children it can be useful to do this exercise thinking of the eating disorder as the best friend and the worst bully.

Longer-term plans

The thoughts of young people with eating disorders tend to become very detail focused and are mostly about the here and now. This makes it difficult for the young person to view the 'bigger picture' when considering their behaviours in relation to how these might impact on their life in the longer term. This technique asks the young person to consider where they want their life to be in one year's time, taking into account the following areas: school, friendships, relationships, family life, health, self-esteem, leisure and hobbies. They are then asked to predict how things will be in each of these areas if they still have an eating disorder. This exercise can be repeated over different timeframes, which can be made relevant to the individual young person. This enables the young person to take a step back and view the 'bigger picture' and helps to identify valued directions in the young person's life. The young person thinks about what their life would be like with and without an eating disorder over different time frames, and allows the young person to consider the impact that the eating disorder may have on their long-term goals.

Self-monitoring

Self-monitoring helps the young person to identify thoughts, feelings and behaviours which cause distress and maintain the eating disordered behaviour. Self-monitoring allows the young person to have the most accurate picture of how the eating disorder is maintained and how it can be changed. Not only does self-monitoring allow the young person to identify the links between their thoughts, feelings and behaviour, but also to identify situations which lead to difficult thoughts, feelings and behaviours. The young person then becomes aware of harmful patterns that maintain their eating disorder, and sees that these patterns are not just arbitrary and automatic. This can lead to an increase in motivation, as the young person begins to see that change is possible. In addition, it can be useful to look back at diary sheets over time, to see how things have changed.

Problem eating and compensatory behaviours

Changing eating behaviours

In AN, the aim is to increase the amount of food eaten to facilitate weight gain and to begin to address fears about eating and weight gain. If the young person is skipping meals,

a regular eating pattern should be introduced which should include both meals and snacks. If the young person is eating regular meals, but eating a reduced amount of food, the aim would be to increase intake across all meals, or to introduce snacks between meals.

In BN, the initial emphasis should be on working towards a regular pattern of eating. Introducing regular eating tackles the trigger of hunger and thus the urge to binge will be reduced. Many young people will find that this, in itself, enables them to reduce the frequency of their binge episodes. However, the young person may need to address specific triggers for binge eating, such as emotional triggers or cravings for particular foods, which may occur if the young person is avoiding or restricting certain types of foods. A clear formulation of the young person's triggers and maintaining factors for binge eating behaviour is essential at this stage.

Supplying dietary advice for the young person and their family is an important part of treatment, and where possible, input from a dietitian is recommended as part of the full treatment package offered. Meal planning is essential, as making spontaneous decisions about what to eat can be extremely anxiety provoking for both the young person and their family. When faced with changing eating behaviours, it can be useful for the young person to have a list of the reasons why they want to recover, and review this list when finding it difficult to make these changes. Distraction techniques, such as playing cards with family members after mealtimes, can help the young person to manage any difficult thoughts and feelings they may have after a meal, and also distract from urges to engage in compensatory behaviours following eating.

Dealing with compensatory behaviours

Self-induced vomiting

Information should be given about the adverse physical consequences of self-induced vomiting, and how self-induced vomiting is not an effective method of managing weight. This information can be helpful in enhancing the young person's motivation to eliminate this behaviour.

Laxative and diuretic use

Similarly, information regarding the nature of weight loss attributable to laxatives or diuretics should be given to the young person. Laxatives and diuretics cause fluid loss, which only produces a temporary weight loss that is reversed as soon as the body is rehydrated.

Exercise

Excessive exercise is a common behaviour in young people who suffer from eating disorders, particularly those with AN. This can take the form of overt exercise, such as running; covert exercise, such as doing star jumps out of sight of others; or constant movement, where the young person may, for example, avoid sitting, jiggle their leg whilst sitting, or make numerous trips to and from the bathroom on the pretext that they have forgotten something.

The maintenance model for compulsive exercise (Meyer *et al.*, 2011) suggests that a number of factors contribute to the maintenance of excessive exercise:

- Weight and shape concerns.
- Perfectionism.

- Psychological dependence on exercise for mood regulation.
- Compulsivity.
- Behavioural rigidity.

Some young people may hold unhelpful beliefs that make their exercise behaviour extremely resistant to change. If this is the case, it is helpful to construct a maintenance formulation. This should be specifically related to the exercise behaviour and address the thoughts and beliefs associated with exercise in the same way as addressing thoughts and beliefs associated with eating, weight and shape.

Automatic thoughts, assumptions and core beliefs

Identifying automatic thoughts

Through self-monitoring, the young person will be able to identify automatic thoughts. Typical examples of automatic thoughts that young people with an eating disorder might have are:

When I lose some more weight, people will like me.
Once I start eating, I won't be able to stop.

During the course of treatment, if they have used behaviours to control their weight or shape, young people may have automatic thoughts that are positive. Examples of such thoughts are:

Losing weight makes me feel more in control.
Exercise has helped me maintain my weight.

Once automatic thoughts have been identified, whether negative or positive, it is important to check whether these thoughts are consistent with the young person's goals for therapy.

Identifying assumptions and core beliefs

Often, young people make conditional assumptions, such as 'If I get thin, then I will be happy/accepted/have achieved something'. Beliefs that are commonly held by young people with eating disorders tend to become 'rules' by which they control their behaviour. Typical 'rules' that young people report are:

- I must always eat less than anyone else.
- I must never eat chocolate.
- I must not eat carbohydrates.
- I must not eat after 6 pm.
- I must weigh all my foods.
- I must stick to a particular number of calories per day.
- If I eat lunch, I must exercise for 30 minutes.

These rules are usually rigidly adhered to and tend to focus on achievement, approval and/or control.

Addressing unhelpful thoughts, assumptions and beliefs

Once unhelpful thoughts, assumptions and beliefs have been identified, the next step is to look for the factual evidence for and against the validity and usefulness of the thought,

assumption or belief. It is important to identify whether there are any thinking errors that may be contributing to the young person's thought being biased or unhelpful. Typical thinking errors in eating disorders are as follows:

- Black and white thinking (categorical rather than continuum thinking):
I'm either totally in control or totally out of control of my eating.
- Overgeneralising (making assumptions based on one event):
I sat down for five minutes therefore I am a lazy person.
- Catastrophising (focusing on the worst possible outcome):
If I eat a biscuit I will lose control and binge all day.
- Selective attention (focusing on one aspect of a situation instead of looking at the whole picture):
One girl is thinner than me.
- Mind reading (assuming that other people's perceptions are negative):
They think that I am greedy.
- Magnification/Minimisation (magnifying the negative/weaknesses and minimising the positive/strengths):
It doesn't matter that I didn't binge all week – I ruined it by bingeing today.
- Jumping to conclusions (in the absence of any factual evidence):
People will only like me if I am thin.
- Double standards (setting higher standards for self than others):
It's acceptable for others to be a normal weight, but it's not OK for me.
- Emotional reasoning (feeling something makes it true):
I 'feel' fat so I must be fat.

When the young person finds that a thought may be biased and unhelpful, they can arrive at a balanced conclusion about this thought and develop an alternative thought which is more accurate. They can then gather evidence to support or refute this alternative thought.

Continuum lines are a good way to challenge black and white thinking, as a 'grey' area is introduced. Orthogonal lines can be an objective way of looking at the relationship between two characteristics, and thus addressing conditional beliefs. For example, the young person may hold the conditional belief 'If I am thin, then I will be happy'. Positive data logs can be used to test whether young people's negative beliefs are accurate or not. By keeping a log of positive things about themselves, others and the world, a young person can become more conscious of the positive things that they may be overlooking, which can help them arrive at a more balanced decision about their negative belief.

Helping the young person to identify and address their rules about eating is an important part of treatment. The young person could write a list of their rules as a homework task and then the therapist can explore with the young person whether their rules are helpful and whether they can let some rules go, whilst modifying others to become more helpful guidelines.

Behavioural experiments

Behavioural experiments are an extremely useful method of testing predictions which arise from the young person's assumptions and core beliefs. They provide experiential evidence for and against the predicted outcome of the young person's thoughts and beliefs. Both planned and accidental behavioural experiments can promote greater cognitive, behavioural and emotional change than verbal cognitive techniques used in isolation.

Surveys can be used to test young people's beliefs about what other people consider to be important, by using feedback from others. For example, a young person might believe that boys only find extremely thin girls attractive. The therapist and young person can devise a brief questionnaire that would test this belief and then both the young person and therapist can ask a number of people they know to complete their questionnaire. They can then look at whether the results of the survey provide evidence for or against the young person's belief.

Discovery experiments deal with unfamiliar situations, in which there are no clear predictions of outcome. These experiments allow the young person to find out what would happen if they were to do something that they had not done before or if they acted differently in a situation that they were familiar with. For example, the young person may never put their hand up in class but may not know why. The young person could try putting their hand up in class and see what happens.

Hypothesis-testing experiments are those that test out the validity of a specific thought or belief. For example, a young person with anorexia nervosa might believe that sitting down directly after a meal will double their weekly weight gain. This belief can be tested by gradually increasing the frequency of sitting down after meals and checking whether their weekly weight gain does indeed double as they increase the frequency of sitting down after meals.

It is important to design behavioural experiments in collaboration with the young person and, where appropriate, to enlist their parents to support them as they embark on these experiments.

Over-evaluation of eating, weight and shape

Whilst most young people will evaluate themselves on a range of aspects of themselves and their lives, young people with eating disorders place significantly more emphasis on eating, weight and shape in their self-evaluation. A self-evaluation pie chart can be a useful way to explore how much emphasis the young person places on eating, weight and shape when evaluating themselves, and increase their awareness of this emphasis (Figure 14.3). The young person constructs a pie chart representing proportionally their different domains for self-evaluation. Usually, a significant proportion of the young person's pie chart will be taken up with things related to the eating disorder.

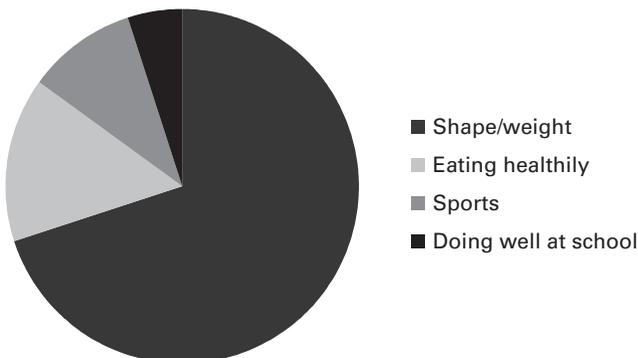


Figure 14.3 Example of a self-evaluation pie chart.

The therapist and young person can then explore the potential difficulties that arise from this emphasis on eating, weight and shape in the young person's self-evaluation.

The therapist can explain to the young person that judging themselves almost entirely in one domain creates an 'all the eggs are in one basket' situation. This puts pressure on the young person to achieve in that particular domain and if anything goes wrong, the young person is likely to feel really bad. The goals set are often unachievable, setting the young person up to fail (see perfectionism, below). Other important domains in life are replaced by the overvalued domains leading to the young person missing out on other, perhaps more helpful, domains for self-evaluation.

A second pie chart is then constructed to represent how the young person would like their life to be (Figure 14.4). These pie charts are then used together to think with the young person about how they could move from the 'now' pie chart to the 'ideal' pie chart.

Body and weight checking and avoidance

When a young person's self-worth is based on eating, weight and shape, and their ability to control these, they are likely to be preoccupied with their weight and shape. Body and weight checking maintains preoccupation with weight and shape, which in turn reinforces the young person's over-evaluation of controlling their eating, weight and shape. Usually, the young person will report that the purpose of body and weight checking is to reassure them that they are not fat/heavier than they want to be. However, this is rarely the outcome of these behaviours.

Typical body and weight checking behaviours are:

- Repeated weighing.
- Checking body in a mirror.
- Pinching parts of the body.
- Comparing self to others who are thinner.
- Measuring parts of the body.
- Repeatedly trying on the same clothes.

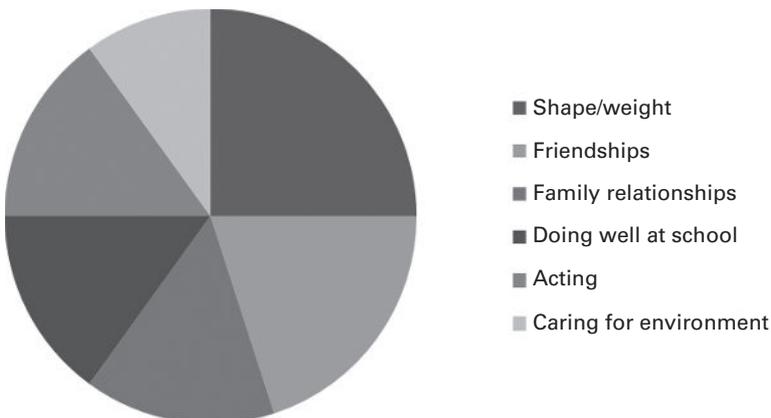


Figure 14.4 Example of an 'ideal' life pie chart.

Body and weight avoidance can also be unhelpful, acting as a safety behaviour that serves to reinforce the young person's distorted assumptions and beliefs about their body and their weight.

Typical body and weight avoidance behaviours are:

- Avoiding weighing.
- Wearing loose clothing.
- Avoiding looking in the mirror.
- Avoiding clothes shopping.
- Avoiding close physical contact with others.

Often, young people are not aware of the extent of their body and weight checking/avoidance, as these behaviours become a habit.

Reducing body and weight checking and avoidance

- Identify the purpose and predicted effects of checking/avoidance behaviour (e.g. 'Looking in the mirror will reassure me that I am not fat and make me feel better').
- Monitor the extent and frequency of body and weight checking/avoidance.
- Construct a hierarchy of behaviours to challenge.
- Set specific goals to reduce, limit, eliminate or postpone a behaviour.
- Test predictions made about the effects of checking behaviours.

'Feeling fat'

Negative feelings such as guilt, anger, boredom and distress are commonly mislabelled as 'feeling fat'. By identifying negative feelings as 'feeling fat', the young person's focus is brought back to their dissatisfaction with their body which maintains their preoccupation with body shape and weight. It is important to explain that fat is not a feeling and that by learning to identify and label feelings correctly, it is possible to then address the true nature of the feeling. Using a diary to identify situations in which the young person 'feels fat' can be helpful as this allows them to explore what situations are likely to trigger 'feeling fat' and enables them to explore what other feelings they may have been experiencing at that time.

Perfectionism

Perfectionism is hypothesised to be a major predisposing factor (Bruch, 1978) for eating disorders as well as a key maintaining factor for severe anorexia nervosa in adults (Fairburn *et al.*, 2003). Shafran *et al.* (2002) suggest that 'clinical' perfectionism is intrinsically linked with self-evaluation and the pursuit of personally demanding standards, despite adverse consequences. Perfectionism is commonly seen in young people with eating disorders. It is useful to distinguish between helpful and unhelpful (clinical) perfectionism when addressing the role of perfectionism in the maintenance of the eating disorder.

Unhelpful perfectionism is maintained when the young person makes a biased evaluation of their performance. If their performance meets the standard that had been set, they reappraise this standard as being insufficiently demanding, and raise the standard. If their performance does not meet the high standard that had been set, the young person perceives

this to be a failure and becomes highly self-critical and may avoid tasks or procrastinate over tasks related to the domain in which they have perceived themselves to have failed.

The following steps are suggested to tackle unhelpful perfectionism:

- Detailed discussion of the advantages and disadvantages of perfectionism.
- Addressing the maintaining behaviours.
- Tackling beliefs and unhelpful cognitive styles.
- Historical review of the development of perfectionism.

Relapse prevention

Relapse prevention planning involves exploring strategies for maintaining progress made. It is useful to review what has been helpful in treatment, and identify which strategies the young person can continue to use to minimise the risk of relapse. Writing a list of high-risk situations that may occur over the next year is also important. Once a list has been compiled, the therapist and young person can explore the warning signs that might suggest that eating behaviour is becoming problematic, for example, if the young person begins to skip meals. Finally, drawing on the strategies that the young person found helpful in treatment, a plan to avoid or cope with high-risk situations in the future can be compiled.

Outcomes

There is enormous variability in the course of eating disorders in young people, ranging from a brief, mild episode following which a full recovery is made, to a chronic course, where the illness lasts many years and may result in death (Gowers & Green, 2009). In young people with anorexia nervosa, treatment-imposed weight gain may return the young person to physical health and appropriate physical developmental stage, but there is an additional task of ‘catching up’ with the normal developmental path in terms of social and emotional development.

No studies to date have specifically investigated outcome predictors for cognitive behaviour therapy for child and adolescent onset AN or BN.

Summary

Whilst there is some support for individual CBT approaches in adolescents with BN, this is not so in AN. Nevertheless, it would appear that eating disorders represent a perfect example of how abnormal thoughts and behaviours combine to result in physical and social impairment and thus, in theory, cognitive behavioural approaches could provide an effective strategy for treating these disorders (Gowers & Green, 2009). Further research is necessary in order to explore this idea.

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Treating broad-based anxiety problems

Carol Newall, Helen F. Dodd, Jennifer L. Hudson and
Ronald M. Rapee

Transient anxiety and fears are common in children and are often considered part of normal development (Last *et al.*, 1996). It is increasingly recognised, however, that some children experience levels of anxiety that significantly affect their day-to-day functioning. This anxiety might make it difficult for them to make friends, to join in with activities they might enjoy or adversely affect their school attendance. These children would be considered to have clinical levels of anxiety and may meet criteria for an anxiety disorder. Together, anxiety disorders represent the most common form of psychopathology affecting children and adolescents (Costello *et al.*, 2003). Exact prevalence rates vary depending on the methods used but there is consensus that, at any given point in time, between 2.5% and 5% of children meet criteria for an anxiety disorder (Rapee *et al.*, 2009). The presence of an anxiety disorder in childhood has been associated with poor peer relationships, increased victimisation, poor academic performance and disrupted family processes (Ezpeleta *et al.*, 2001; La Greca & Lopez, 1998; Verduin & Kendall, 2008). In the longer term, anxious children are at increased risk for continued mental health problems in adulthood, including chronic anxiety, depression and substance abuse (Buckner *et al.*, 2008; Pine *et al.*, 1998).

In this chapter we will focus on the presentation and treatment of three of the most prevalent anxiety disorders seen in children: separation anxiety disorder (SAD), social phobia and generalised anxiety disorder (GAD). Each of these disorders has unique features, but an underlying construct of anxiety is common across them all. As a consequence, there are high rates of comorbidity between these disorders and they are often treated using a single protocol (Rapee *et al.*, 2006a).

Separation anxiety disorder

The primary feature of SAD is excessive anxiety concerning separation from home or from others to whom the individual has an attachment. In children, separation anxiety is most commonly seen in the context of separation from parents, especially the mother. The DSM criteria for separation anxiety state that the anxiety must be 'developmentally inappropriate' for a diagnosis to be given. This is an important consideration when diagnosing young children for whom some level of anxiety upon separation would be expected. Developmental appropriateness is further reflected in the nature of the separation events that lead to anxiety. For example anxiety about a five-minute separation during which the child is in a room adjacent to their mother is clearly quite different to anxiety about a week-

long separation during which the child's mother is away from home. A child with SAD is more likely to experience difficulties with both of these situations, although anxiety over very brief separations within the home is an indication of a severe manifestation of the disorder. The key issue for children with SAD is a fear or concern that something bad will happen to either the attachment figure or to the child while separated. For example, many children believe that their parent will be killed or that the child will be kidnapped while they are apart. A core feature of all anxiety disorders is avoidance. Common situations that are avoided by children with SAD include attending school, sleeping at friends' houses, allowing parents to go out at night, or the child being able to stay at a relative's or friend's house.

Social phobia

The core feature of social phobia is concern about negative evaluation from others, leading to feeling humiliated or embarrassed. For example, socially phobic children report worrying that others will think they are stupid, unattractive or incompetent. As a result of these beliefs, children with social phobia will commonly fear and avoid a range of social or performance situations. Commonly feared situations include meeting new people, speaking up in groups, speaking to authority figures, or generally being the centre of attention. As a result of these fears many children with social phobia find it difficult to make friends (Bernstein *et al.*, 2008). When diagnosing social phobia in children, it is important to differentiate between children who prefer to be alone (i.e. they show little interest in their peers) and children who avoid social situations because of their fear of negative evaluation but have a desire for social interaction. Only the latter would meet criteria for social phobia.

Generalised anxiety disorder

In contrast to the relatively specific focus of separation anxiety disorder and social phobia, GAD is characterised by excessive worry about a broad range of events or activities. For a diagnosis to be given, the child must find the worry difficult to control. Children may worry about a range of topics, including school performance, their health and the health of others, family problems, events such as wars and natural disasters and also interpersonal difficulties. For a child to be diagnosed with GAD the excessive worry must be accompanied by at least one physical symptom such as difficulty sleeping, feeling restless or muscle tension. In contrast to popular belief, children with GAD usually engage in avoidance behaviours, although they are often relatively subtle. Typically, such children take unusual steps to avoid making mistakes, any novel or unusual situation, or relinquishing control in situations.

In the section that follows, we outline our approach to the treatment of broad-based child anxiety disorders. This approach is based on the assumption that all anxiety disorders share a common underlying psychopathology and can therefore be treated in a similar way. As a consequence, this approach is applicable to the full range of childhood anxiety disorders, including the three disorders outlined above.

The programme

Theoretical approach and overview of content

There are several cognitive behaviour therapy (CBT) programmes available for practitioners treating children with anxiety disorders. Our clinic uses The Cool Kids programmes

(7–16 years) (Rapee *et al.*, 2006b, 2006c), which are theoretically grounded in the cognitive-behavioural approach. Core modules of these programmes focus on cognitive restructuring, gradual exposure and parent training. In addition, there are supplementary modules that include training in assertiveness, social skills and problem-solving. Techniques such as verbal instruction, activities, role play and modelling are used to teach children the relevant skills. Homework also plays a significant part in the programmes as much of the real-life practice occurs outside the therapy session.

The core modules are included because they target key factors involved in the maintenance of anxiety in children and adolescents. For example, one of the key factors involved in the maintenance of anxiety is cognitive bias. Children who are anxious tend to preferentially allocate attention towards threat and are more likely to interpret ambiguous situations in a negative or threat-related way (Hadwin *et al.*, 2006). Cognitive restructuring techniques are aimed at modifying these biases through training the child to consider alternative interpretations and to focus on non-threat related stimuli in the environment.

Another key factor involved in the maintenance of anxiety is avoidance: children with anxiety disorders avoid situations that make them fearful. Avoiding feared situations prevents the child from learning more accurate and realistic information about their situation and their ability to cope. Gradual exposure is the opposite of avoidance. It teaches the children to face the situations they avoid in a gradual, step-by-step approach.

A number of parenting factors have also been associated with child anxiety (Rapee *et al.*, 2009). Parents of children with anxiety disorders tend to provide their child with more assistance, in an overinvolved way, than parents of children without anxiety disorders. Parents of anxious children may support the child's avoidance and dependence. Treatment, then, is focused on increasing the child's independence, decreasing the degree to which parents 'rush in' to help their child and decreasing the parents' provision of excessive reassurance. There is also clear evidence that anxiety runs in families. Parents of children presenting for treatment are also more likely to have an anxiety disorder. Thus our treatment programme also teaches parents anxiety management strategies, partly to increase their capacity to coach their children, and also to assist parents in reducing their own anxiety.

As Cool Kids is a family-based programme, parents/guardians also complete modules at the same time as their child, to support and scaffold the child's learning between sessions. In addition, parents are encouraged to recognise and reduce parenting behaviours that may maintain or contribute to their child's anxiety, such as parental overprotection, or reinforcing anxiety responses with attention and reassurance and modelling anxious behaviours.

An overview of the treatment format and session structure

The Cool Kids programme involves parents and children participating in ten, 2-hour sessions each week for 10 weeks. The programme can be delivered in an individual or group format and parents and children are required to attend every session, when children are below around grade 7 (age 12). By adolescence, the extent to which parents are involved in the programme is gradually reduced. At our clinic, the programme is usually conducted in a group format, with groups made up of children and adolescents who have a range of anxiety disorders.

Groups typically consist of between four and eight families with children of a similar age. Matching the children on age facilitates social interaction and allows the therapist to pitch the material at a level appropriate to children's cognitive development. Groups are typically organised to include an approximate balance of genders. Two parents who are most involved

in the child's upbringing are encouraged to attend as long as any marital differences can be set aside during group sessions. Groups can be run by a single therapist, but we commonly include two therapists to allow greater individual attention and facilitate therapist training.

Assessment for suitability to the programme

The programme is suitable for children who have a principal anxiety diagnosis. That is, anxiety must be seen as the most interfering or distressing problem. The programme is appropriate for children presenting with non-anxiety comorbid disorders such as mood or behaviour disorders, unless the clinician ascertains that these additional problems present an obstacle to progress. For example, a child with severe oppositional defiant disorder may be too disruptive during a session to engage in treatment for anxiety, and a depressed child or adolescent may not be sufficiently motivated to proceed with treatment. We have developed additional components to the Cool Kids programme to target comorbid problems such as depression (Rapee *et al.*, 2006b, 2006c).

The most accurate approach to determining suitability to the programme is via a multi-method and multiple perspective approach, a technique often stressed in the literature (De Los Reyes & Kazdin, 2005). We recommend a structured clinical interview supported by standard parent and child self-report questionnaires. At our clinic, we use the Anxiety Disorders Interview Schedule for Children (ADIS-C/P, Silverman & Albano, 1996) as the structured interview. The ADIS-C/P is a semi-structured interview specifically designed to assess a range of anxiety disorders in children. It has good to excellent reliability for the diagnoses of GAD, social phobia and separation anxiety (Lyneham *et al.*, 2007; Ramsawh *et al.*, 2011). Self-report measures support the diagnostic interview and provide a measure of progress and treatment outcome when administered before treatment and at various points throughout treatment. Questionnaires typically used in our clinic to complement the clinical interview include the *Spence Children's Anxiety Scale*, parent and child versions (SCAS, Nauta *et al.*, 2004; Spence, 1998) and the *Children's Automatic Thoughts Scale* (CATS, Schniering & Rapee, 2002). We also administer the *Strengths and Difficulties Questionnaire* (Goodman, 1997; Goodman & Scott, 1999) to assess for internalising and externalising problems.

Core components

There are five core components to our treatment approach. Each of these is outlined below.

Psychoeducation

The aim of this component is to provide children and parents with an understanding of anxiety: its function, the prevalence of childhood anxiety problems in the population, and to identify the core features of anxiety (feelings, thoughts, physiological and behavioural responses). In this section, youths are taught to become aware of bodily symptoms when they become anxious to facilitate early detection of anxiety. Moreover, an emphasis on the links between thoughts and feelings is established. Children and parents begin to identify in various illustrated scenarios that 'calm' thoughts lead to calm feelings but 'worry' thoughts lead to feelings of excessive anxiety. The goal of this component is to encourage children to notice the occurrence of thoughts associated with feelings of anxiety. Among younger children (< 7 years), the exercise of producing calm thoughts is especially helpful because cognitive challenging and searching for evidence may prove difficult for younger age bands. Though these younger children are unable to carry out the full scope of cognitive

restructuring, they are able to manage anxious feelings by replacing worried thoughts with calm thoughts (e.g. 'I can be brave') once they discover the link between thoughts and feelings.

An important consideration for therapists who are working with anxious children is that children are often unable to articulate their worries in words/thoughts when asked directly. For example, when children are asked: 'What is the thought behind the feeling?' children will often state that they do not know. However, the question is better phrased as: 'What do you think will happen?' or 'What is the worst that will happen in this situation?' These questions are more likely to provide access to the anxious child's thoughts given that it taps into core thinking errors in anxiety: (1) over-estimating the *probability* of catastrophe, and (2) the belief that one *cannot cope* in the event of catastrophe.

Cognitive restructuring

Cognitive restructuring in the Cool Kids Programme is presented as 'Detective Thinking'. The children become 'detectives' of their thoughts and seek 'evidence' to support or reject the anxious thoughts. This technique of identifying thought errors is especially tailored for children, as it presents their thoughts as mysteries to be challenged and tested. The process includes identifying the *event* that triggers anxiety, giving a worry rating for the *feeling*, identifying the *thought* behind the feeling, and looking for realistic *evidence*. Children and adolescents are then encouraged to generate alternative thoughts or a more appropriate thought to replace the unrealistic anxious thoughts. Children then provide another worry rating at the end of the process to demonstrate that replacing worried thoughts with more *realistic* thoughts can reduce feelings of anxiety. Parents act as coaches in the technique and are encouraged to prompt detective thinking, instead of using reassurance, to help children manage their anxiety. Parents are also encouraged to use cognitive restructuring to help manage any of their own worries or distress.

Gradual exposure

As mentioned above, gradual exposure is a fundamental component of the Cool Kids programme. During exposure, different feared situations are faced, gradually working from milder fears to greater fears. Children and parents typically work together to develop a 'stepladder' of fears that is arranged from least fearful to most fearful, and the youth is encouraged to work his or her way through this hierarchy. To give an example, a youth with GAD who is continually worried about being late might develop a stepladder that starts with them purposely arriving 1 minute late. They may then proceed to being late by 5 minutes for another event. Children must successfully reduce their anxiety at each step of the hierarchy before proceeding to the next step. Typically, children and adolescents have successfully completed a step once they have remained in the situation until their anxiety has diminished and when they no longer feel intense anxiety about carrying out that particular step. Typically too, parents and children are encouraged to work on each step until they learn that 'nothing bad happens'. It is worth noting that on rare occasions, the feared prediction does indeed happen but these steps should not be interpreted as unsuccessful because they directly target the second erroneous belief characteristic of individuals with anxiety disorders: 'that I cannot cope if something bad happens'. For instance, even if the teacher expresses dismay that the child is late for class, this step is still important because the child learns that they are able to *cope* even when their feared outcome eventuates.

The implementation of small rewards for each step and a larger reward for completion of the stepladder should be discussed and agreed upon before commencement of gradual

exposure. Extrinsic rewards help encourage the child or young adolescent who may be resistant about facing their fears and increase their motivation to try a more difficult step up the hierarchy. Rewards are agreed with the parents whose task it is to deliver the agreed reward upon successful completion. Therapists need to regularly check homework completion, including prompt and consistent delivery (or non-delivery if the step was not completed) of rewards. Adolescents are often encouraged to generate self-rewards for completing these tasks to help motivate them towards the next step.

Problem solving, social skills, assertiveness training and dealing with bullies

The aim of these additional components is to help children and adolescents develop appropriate responses to problems encountered and complex social situations. These components are viewed as 'add-ons' to the Cool Kids programme and may not be taught to all children. They are only covered when the therapist's assessment indicates that they provide a source of difficulty for that child.

The aim of the problem-solving component is to engage children and adolescents in actively seeking a workable solution without reverting to their usual maladaptive response of avoidance. Children and adolescents are taught to identify the specific problem, generate all possible solutions, explore the consequences of carrying out each solution (i.e. benefits vs. costs) and implement the most feasible solution.

In social skills modules, children and adolescents may be taught about body language that conveys confidence such as good eye contact and posture, as well as a clear voice. They may also be instructed on adaptive ways of responding to teasing or bullying in order to de-escalate the situation, such as remaining calm, seeking help or using non-violent responses. An important factor in this component is the use of role-play to help children practice how to behave in a confident manner when faced with difficult social situations.

Session outline

Below is an outline of the Cool Kids programme by session.

Session 1: *Psychoeducation about childhood anxiety disorders and overview of the programme.* This session introduces the links between feelings and thoughts for the children. Parents are introduced to the causes and nature of childhood anxiety disorders.

Sessions 2–3: *Cognitive restructuring.* This session focuses on several strategies for challenging erroneous thoughts. The concept of cognitive restructuring ('Detective Thinking') is introduced.

Session 3: *Parenting and self-reward.* In this session parents are taught new strategies to manage their child's anxiety (attending to brave behaviours, reducing reassurance seeking, increasing the child's independence and modelling courageous behaviour). Children are taught self-reward.

Sessions 4–6: *Gradual exposure or response prevention.* Parents and children develop and carry out relevant hierarchies using stepladders. If there is sufficient opportunity, Session 6 can involve in vivo exposure where the therapist accompanies the children and parents to a local shopping centre to carry out exposure tasks.

Sessions 7–10: *Promoting and sustaining gains in core skills and introduction of supplementary skills.* The final sessions continue to focus on cognitive restructuring and exposure therapy with an emphasis on addressing obstacles and maintaining gains in treatment. In the final sessions, supplementary training such as problem-solving, social skills, responding to bullies and assertiveness skills are addressed.

Efficacy

Since the first large-scale study conducted by Kendall (1994), there has been a growing body of research indicating that CBT is a treatment with well-established efficacy for childhood anxiety disorders (Davis *et al.*, 2011). It is important to note however that the majority of clinical trials have assessed the efficacy of CBT for children with anxiety disorders in general. These groups typically include children and adolescents with GAD, social phobia and separation anxiety disorder, as well as other anxiety disorders including specific phobia. In trials of this nature, several studies have now shown that CBT is superior to waitlist (Barrett *et al.*, 1996; Rapee *et al.*, 2006a) and psychological placebo control (Ginsburg & Drake, 2002; Hudson *et al.*, 2009; Muris *et al.*, 2002). For example, Hudson *et al.* (2009) conducted a randomised controlled trial in which 112 children aged 7–16 years were assigned to receive CBT (n = 60) or general support and attention (n = 52). Significantly more children in the CBT condition (68.6%) were diagnosis-free at 6-month follow-up than children in the general support and attention condition (45.5%). Some research has also supported the involvement of parents in CBT, which has been shown to be superior to CBT in which only the child is included (Barrett *et al.*, 1996; Woods *et al.*, 2006). It is important to note, however, that evidence on this issue has been mixed and the advantages of family involvement may be limited to girls and younger children, although these findings have not been replicated (Barrett *et al.*, 1996; Woods *et al.*, 2006). Overall, CBT is considered a well-established efficacious treatment for childhood anxiety disorders including the three disorders that are the primary focus of this chapter (separation anxiety disorder, social phobia and generalised anxiety disorder).

Given that most trials have assessed the efficacy of CBT in a heterogeneous group, less is known about the efficacy of CBT for specific childhood anxiety disorders (Davis *et al.*, 2011). To date, there is evidence that CBT is ‘probably efficacious’ in the treatment of social anxiety in childhood (Davis *et al.*, 2011) given that CBT has been shown to be superior to wait-list control in two large-scale trials (Gallagher *et al.*, 2004; Spence *et al.*, 2000). More recently, a small-scale study has shown that CBT is superior to waitlist control in the treatment of separation anxiety disorder at post-treatment and 4-week follow-up (Schneider *et al.*, 2011). To date, there are no specific clinical trials for the treatment of GAD in children and adolescents but GAD is usually well represented in clinical trials of combined groups. There is a need for future studies to specifically evaluate the efficacy of CBT for childhood GAD.

Taken together, the evidence reviewed suggests that CBT is an efficacious treatment for childhood anxiety disorders. However, it is clear that a substantial minority of children still meet criteria for an anxiety disorder at the end of treatment. Recent research has therefore begun to consider the factors that may affect treatment outcome, with a view to understanding the reasons why some children do not respond well. Ultimately the goal of this research is to enhance treatment outcome for these ‘non-responders’. In the following section, some new directions are considered in relation to treatment enhancement and identification of non-responders.

New directions**Advances in behavioural neuroscience research: emergence of complementary interventions to enhance treatment outcomes**

Recent developments in animal models suggest that a partial agonist for the NMDA receptor called d-cycloserine (DCS) may facilitate learning during exposure therapy

(Deveney *et al.*, 2009; Ledgerwood *et al.*, 2004). The drug has several important advantages over traditional medications for anxiety disorders. For example, DCS is not an anxiolytic, and therefore has none of the side-effects related to anxiolytics such as drowsiness and numbing. In contrast, the primary action of DCS is the facilitation of new learning to safety signals. Animal research has shown that when DCS is administered prior to extinction, a laboratory training process that is analogous to exposure therapy, learning to the safety cues was accelerated and enhanced (Richardson *et al.*, 2004).

To date, several translational trials on DCS for adult anxiety disorders have produced equivocal results for its efficacy as a complementary therapy to CBT and exposure therapy without cognitive components (Ressler *et al.*, 2004; Storch *et al.*, 2007; Tolin *et al.*, 2006). Some trials have shown that DCS enhances treatment outcome when it is used as an adjunct to exposure therapy (Guastella *et al.*, 2008; Hofmann *et al.*, 2006) while others have not (e.g. Storch *et al.*, 2007). One explanation for the inconsistent results obtained in trials may be related to the nature of adult clinical samples. In laboratory research, DCS facilitation of learning to safety cues is attenuated by long-term use of antidepressants (Werner-Seidler & Richardson, 2007) and re-extinction (Langton & Richardson, 2008). As such, adult participants who have a recent history of taking antidepressants, or who have had exposure therapy prior to participation in the research trial may be unlikely to respond to DCS. Taking these factors into account, DCS may be most advantageous as an early intervention tool among youths who are less likely to be on antidepressants or to have previously sought psychotherapy. To date, there have been no major clinical trials examining DCS for broad-based childhood anxiety disorders. It is plausible that DCS may have a significant impact among anxious youths and more research is warranted in this area. Moreover, if DCS indeed facilitates anxiety treatments for youths, it would represent an important first-line early intervention model for childhood anxiety disorders.

Familial risk factors: parental anxiety management as adjunct to child-focused CBT

A consistently documented phenomenon in childhood anxiety disorders is the high prevalence of parental anxiety disorders in treatment-seeking samples (Ginsburg *et al.*, 2004; Rapee *et al.*, 2009). For instance, studies have found that approximately two-thirds of mothers seeking treatment for their child's anxiety also met criteria for an anxiety disorder (Last *et al.*, 1987). Research also suggests that the presence of untreated parental anxiety, determined by a semi-structured clinical interview, poses a significant risk to the successful outcome of CBT for childhood anxiety disorders (Gar & Hudson, 2009; Kendall *et al.*, 2008; Rapee, 2000). It is worth noting that some studies have failed to show a relationship between parental anxiety and child treatment outcomes (Berman *et al.*, 2000; Crawford & Manassis, 2001; Southam-Gerow *et al.*, 2001). However, these studies have relied solely on self-report instruments to determine parental anxiety status, which may be problematic because parents may under-report their anxiety in self-report measures to avoid being perceived as responsible for the child's anxiety difficulties (Bogels & Siqueland, 2006; Gar & Hudson, 2009; Rapee *et al.*, 2000). Overall, studies that have used reliable methods of determining parental anxiety status (i.e. validated clinical interviews) have consistently found that the presence of parental anxiety impedes child treatment outcomes (Gar & Hudson, 2009; Hudson *et al.*, submitted; Kendall *et al.*, 2008). Given this, the treatment of parental anxiety in clinical trials is a potentially important avenue for future research aimed at enhancing treatment outcomes for childhood anxiety disorders.

In the first large-scale study to examine this issue, Cobham and her colleagues found that the addition of parental anxiety management (PAM) to child CBT enhanced treatment outcomes compared with child CBT without PAM, but only for children with at least one anxious parent (Cobham *et al.*, 1998). It is important to note that this favourable outcome was only found in one outcome measure – the children’s principal diagnoses status at post-treatment. No other outcome measures (i.e. maternal and child self-report, clinician global ratings, clinical severity ratings) reflected any improvements in the children’s anxiety as a consequence of treating the parents’ anxiety. Moreover, the one favourable result for the inclusion of PAM was not maintained at 6- and 12-month follow-up. Interestingly, at 3-year follow-up, the provision of PAM conferred significant benefits to families regardless of parental anxiety status (Cobham *et al.*, 2010). That is, children in the PAM+CBT group were more likely to be diagnosis-free compared with children in the CBT-only group even if their parent was not anxious. This finding suggests that the PAM programme may not be working through reductions in parental anxiety, but may be modifying parenting responses to an anxious child that may be universally beneficial, regardless of whether the parent is anxious.

In a recent large-scale study conducted at our clinic, we did not observe any enhancement of child treatment outcomes as a consequence of introducing PAM into the Cool Kids module (Hudson *et al.*, submitted). The most parsimonious explanation for these findings is that PAM in its current 5-session format did not reduce parental anxiety significantly in comparison to those anxious parents who did not receive PAM. It is worth noting that this limitation is applicable to both large-scale studies as Cobham *et al.* (1998, 2010) also failed to detect any improvements in parental anxiety as a consequence of PAM. To date, neither PAM programmes in the two large-scale studies have shifted parental anxiety status (Cobham *et al.*, 1998; Hudson *et al.*, submitted). Therefore, no clear conclusions can be made at this stage about whether reductions in parental anxiety affect child treatment outcomes as the contents of both PAM programmes have not been effective in shifting parental anxiety. Future studies may need to re-envision the specific components and goals for change needed in the PAM programme, which would successfully produce reductions in parental anxiety *and* enhance treatment outcomes for the child.

A smaller-scale study by Creswell and colleagues provide some important clues for future research on PAM (Creswell *et al.*, 2008). Creswell *et al.* (2008) showed that reductions in parental anxiety via treatment did not modify parenting behaviours that are known to maintain childhood anxiety problems such as parental over-involvement. The findings suggest that reducing parental anxiety may not be sufficient for modifying child treatment outcomes because it may not affect parent–child interactions. Thus, future investigation of this issue will need to consider carefully the inclusion of modules in the PAM programme that specifically target and minimise unhelpful behaviours characteristic of anxious parents that contribute to the maintenance of the child’s anxiety problems (e.g. facilitation of avoidance, modelling of anxious behaviours by parents, over-involvement and over-protection).

Genetic predictors of treatment response

An exciting new development in the field lies in the discovery of genetic predictors of treatment outcome for anxious children. In a large sample of children with anxiety disorders, we examined the association between treatment response and the serotonin transporter gene promoter region (5HTTLPR), previously shown to moderate environmental influences on

depression (Eley *et al.*, 2012). The polymorphism has two variations: short (S) and long (L). Typically, children with the S allele show poorer outcomes in response to negative environments, yet positive outcomes in response to positive environments (Caspi *et al.*, 2003). This suggests that children with the S allele may be more sensitive to their environment. In our study, we showed that children with two copies of the short allele (SS) were significantly more likely to respond positively to cognitive behaviour therapy than children carrying the long allele (Eley *et al.*, 2012). At follow-up, children with the SS genotype were 20% more likely to be free of their primary anxiety diagnosis than children carrying the L allele. This finding needs to be replicated but it suggests that genetic information could be used as a tool to inform treatment choices. It is possible that children carrying the L allele may require more intensive interventions than children with the SS genotype.

Conclusion

Knowledge of the causes and treatment of anxiety disorders in children has significantly advanced in the last 20 years. We know that the majority of children with broad-based anxiety disorders respond to 10–16 sessions of standard cognitive behaviour therapy. The results of these treatment studies provide information about the efficacy of CBT for broad-based anxiety disorders and future research would benefit from knowledge about recovery rates of children with specific anxiety disorders. Recent advances have also been made in our understanding of factors that predict which children will respond favourably to CBT. Specifically, we know that parental anxiety symptoms may predict poorer outcomes for anxious children in treatment. Further, we have preliminary information regarding biomarkers for response to CBT. Future research will benefit from developing more enhanced treatments for those children who are not responding to our current standard protocols. These enhanced treatments may involve more intensive treatments for anxious parents and for those children who are more resistant to environmental change.

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Post-traumatic stress disorders

David Trickey

When . . . you Think of Things, you find sometimes that a Thing which seemed very Thingish inside you is quite different when it gets out into the open and has other people looking at it.

([Winnie the Pooh] Milne, 2004; p. 99)

Introduction

Adjusting to a significant life event can be difficult for children and adults alike. A sudden bereavement, or bearing witness to violence or a tragic accident are experiences likely to be accompanied by complex, even debilitating feelings of fear or sadness. For the young child, making sense of traumatic events is complicated by limited life experiences, naïve understandings of the world and reliance on those around them. Their interpretation of events may be hindered by child-like language and reasoning. This chapter seeks to describe the impact of such events on children and portray the application of a model that can be used both to understand such reactions and guide interventions intended to help children by enabling them to confront their experiences, formulate a narrative and develop a helpful meaning of the event.

Diagnosis

Traumatic events can lead to a variety of psychological problems such as anxiety, depression, behavioural problems, substance abuse, self-harm and post-traumatic stress disorder (PTSD) (Perrin *et al.*, 2000). In clinical practice, children's reactions to traumatic events may be complex; those with symptoms of PTSD, who fail to meet the strict criteria for a diagnosis according to the current *Diagnostic and Statistical Manual of Mental Disorders* (DSM-IV-TR; American Psychiatric Association, 2000), may still be suffering from substantial distress and impairment (Carrion *et al.*, 2002), which may respond to intervention. At the time of writing, the fifth edition of the DSM is in preparation and new criteria are likely to be introduced.

The DSM-IV-TR diagnostic criteria require that following exposure to an event of sufficient severity, a combination of symptoms from each of the following three clusters of symptoms is persistently present:

1. Re-experiencing of the event.
2. Avoidance of reminders or emotional numbing.
3. Increased arousal.

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The less strict criteria outlined in the *ICD-10 Classification of Mental and Behavioural Disorders* (World Health Organization, 1992) simply require that following the traumatic event the person is suffering from some form of traumatic re-experiencing; it states that symptoms other than re-experiencing are common, but not central to the diagnosis.

Re-experiencing

Persistent re-experiencing may take a number of different forms. Children may suffer from the spontaneous and unwelcome intrusion of vivid and distressing memories of the event. Its elements or themes may be vividly and repetitively re-enacted in the child's play, drawings and games. They may suffer from flashbacks in which the child feels as if they are re-experiencing the event itself, rather than recalling the memory. Children may involuntarily re-enact what they were doing at the time of the event. They may suffer from nightmares based on the actual event, their perception of what happened, or themes associated with it. They may also become extremely distressed or experience a strong physiological reaction (such as shortness of breath or heart palpitations) in response to any reminders of the trauma.

Avoidance of reminders and numbing

Children may actively try to avoid anything associated with the event, including thoughts, feelings, conversations, activities, places or people. This avoidance can become generalised, for example a child assaulted in a specific park may avoid all grassy areas. They may be unable to recall some aspects of the event despite having remained conscious throughout. This amnesia can be very frightening particularly if the child interprets such memory loss as a form of permanent psychological or neurological damage. They may become less interested in activities previously enjoyed, feel detached from other people, suffer from a reduced repertoire of feelings and they may no longer bother to make plans for the future.

Increased arousal

Children may suffer from symptoms associated with increased levels of physiological arousal such as difficulties falling or staying asleep, becoming more irritable, losing their temper, having difficulties concentrating and being more watchful (hypervigilant). They may become more jumpy (exaggerated startle response), which may be apparent because of the *duration* of the startle response which may last for minutes or even longer (Smith *et al.*, 2010).

Duration

To satisfy the DSM-IV-TR diagnostic criteria, the combination of difficulties must have continued for at least a month. This stipulation is important as symptoms of PTSD are likely to occur for many children immediately following a traumatic event; however studies indicate that many will recover spontaneously over the first month or so (American Academy of Child and Adolescent Psychiatry [AACAP], 2010; Kessler *et al.*, 1995). For example, Le Brocque *et al.* (2010) found that following accidental injury, 57% of their sample of 6–16-year-olds were resilient with subclinical levels of symptoms throughout the study, 33% initially had high levels of symptoms but recovered quickly and 10% had high levels of symptoms that persisted for 2 years. In contrast to DSM-IV-TR, the ICD-10 criteria allow PTSD to be diagnosed within the first month following the traumatic event.

Post-traumatic stress disorder in younger children

Post-traumatic stress disorder tends to present differently at different stages of childhood. Younger children tend to report fewer re-experiencing symptoms and fewer avoidance or numbing symptoms (Fletcher, 1996). This may be because younger children have difficulty recognising and describing internal states and these may not be noticed by parents (AACAP, 2010). Developmental aspects of CBT are examined elsewhere in this volume. The ways in which child development affects PTSD and subsequent interventions are covered in detail in comprehensive and helpful articles (Salmon & Bryant, 2002; Vernberg & Johnston, 2001). The younger the child, the more that assessment and intervention will rely upon the adults around them such as parents and teachers. Given these developmental differences, the usefulness of the DSM-IV-TR criteria has been called into question when applied to preschool children; an alternative set of criteria has been proposed that relies more heavily on the observation and reporting of behavioural symptoms by those in regular contact with the child (Scheeringa *et al.*, 2003). This alternative has received a great deal of research attention, much of which supports its use with preschool children (e.g. Meiser-Stedman *et al.*, 2008).

Comorbid problems and symptom overlap

Post-traumatic stress disorder commonly occurs alongside other psychological problems (Trickey *et al.*, 2012). For example in their study of adolescents involved in a shipping disaster, Bolton *et al.* (2000) found that 82% of the young people with PTSD developed another major disorder in addition to PTSD. There are a number of possible explanations for this co-occurrence. Firstly there may be some factors such as poor family functioning or poor attachment that act as risks for both PTSD and other problems. Secondly comorbid psychological problems may be secondary to PTSD, for example a child may develop substance abuse in order to cope with their flashbacks, or they may become depressed as a result of PTSD. This secondary development is supported by the finding that depression and anxiety decreases as PTSD responds to intervention, even if the anxiety or depression is not targeted (Smith *et al.*, 2010). Thirdly the comorbid problem may maintain the PTSD, for example depression may prevent the child from having the motivation to overcome their avoidance which in turn perpetuates the PTSD. Assessment and formulation can be further complicated by the fact that there is significant overlap between symptoms of PTSD and other disorders (e.g. attention deficit hyperactivity disorder, generalised anxiety disorder, specific phobia, depressive disorders, conduct disorders and psychosis; AACAP, 2010).

The cognitive model of post-traumatic stress disorder

Overview

A number of adult models of PTSD are described by Brewin and Holmes (2003), and Meiser-Stedman (2002) specifically considers how such models may be applied specifically to children and young people. The cognitive model of PTSD in children and adolescents (Meiser-Stedman, 2002) offers a useful understanding of how PTSD develops, how it is maintained and how interventions can help. Interventions that are based on the model appear to be effective (Cohen *et al.*, 2009). The cognitive model of PTSD suggests that problems associated with PTSD persist either because of the nature of the traumatic memory, or because of the meaning attributed to the event, or both. This can lead to a

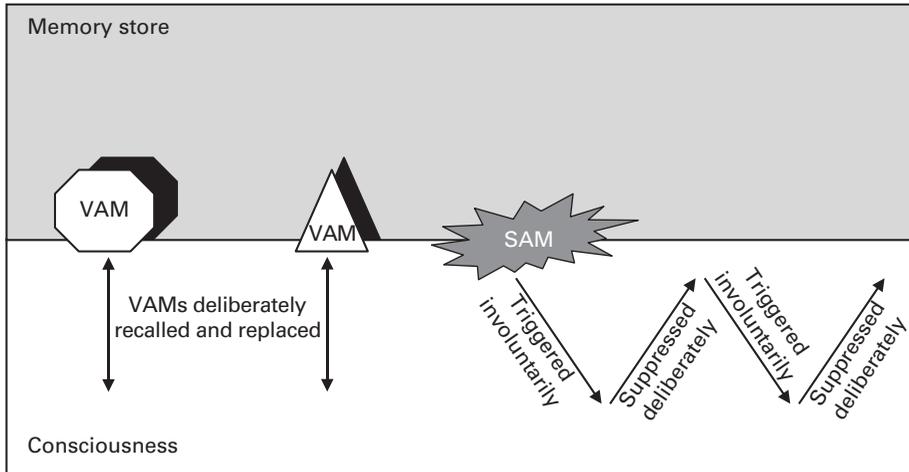


Figure 16.1 Verbal accessible memories (VAMs) and situationally accessible memories (SAMs).

sense of current threat in situations that do not warrant it (Ehlers & Clark, 2000). These difficulties are often maintained by some form of avoidance.

Memory and post-traumatic stress disorder

Brewin *et al.* (1996) use the term 'verbally accessible memories' (VAMs) to describe memories for normal autobiographical events. They suggest that when memories of normal events are formed, the memory incorporates the perceptual features of the event within a conceptual framework (Krans *et al.*, 2009), as if the perceptual information such as sensory information, thoughts and feelings are 'wrapped up' in the words and meaning of a narrative.

Verbally accessible memories tend to be updateable with new information, have a sense of time and place (i.e. 'back then and back there') and, regardless of accuracy, the account of the event is usually coherent. Furthermore, they are usually recalled deliberately for a purpose and can be updated and manipulated.

However in conditions of extreme stress, fear, horror or helplessness the balance shifts from conceptual to more perceptual processing (Krans *et al.*, 2009) resulting in memories for traumatic events being qualitatively different. Such memories are referred to as 'situationally accessible memories' (SAMs) by Brewin *et al.* (1996). The memory appears to be stored in terms of the actual sights, sounds, smells, tastes and physical sensations. These memories tend to be very easily triggered and intrude into consciousness even against the person's will. Because these memories, and the way in which they are triggered automatically, are distressing and frightening they are deliberately suppressed (Figure 16.1).

When trauma memories come to mind they lack a sense of time and place and so are experienced as happening here and now, rather than being recalled from the past. They are associated with extreme distress, similar to that experienced at the time of the trauma and thus individuals try to avoid engaging with the memory. This understandable avoidance of the memory inhibits the development of a corresponding VAM, which would ordinarily act to suppress the SAM. Narrative accounts, if available at all, tend to be muddled, confused and lack coherence.

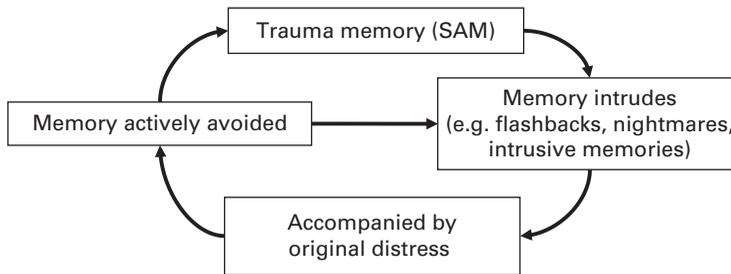


Figure 16.2 Maintenance cycle of avoidance.

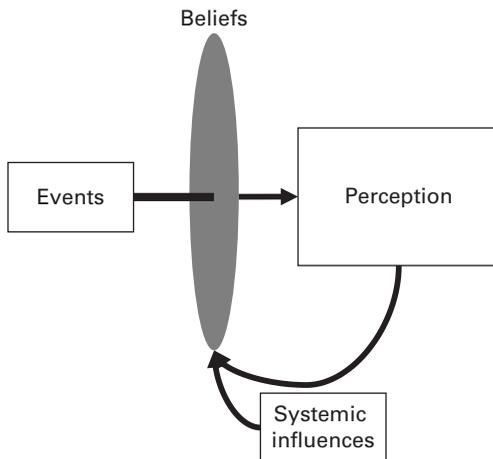


Figure 16.3 Beliefs act as a lens through which events are perceived.

Many people who experience trauma can process memories for difficult events over time and develop a VAM. Symptoms of PTSD, for example flashbacks and intrusions, may therefore be high immediately after an event, but gradually diminish over the days and weeks that follow as noted in the earlier section (Neria *et al.*, 2011). The development of PTSD is believed to be associated with a cycle of intrusion of negative and aversive sensory memories, followed by distress and avoidance. Additionally, the more the person actively tries to avoid thinking about the memory, the more it intrudes as shown in Figure 16.2.

Meaning and the interpretation of traumatic events

People perceive things in an idiosyncratic way, based on their beliefs or assumptions about various things including:

- The world (and how it is *supposed* to work).
- Other people.
- Themselves.

This ‘assumptive world’ is usually unconscious, unarticulated and used automatically rather than deliberately (Kaufman, 2002). These beliefs are like a lens through which events are anticipated, perceived and given meaning (see Figure 16.3).

Difficult events typically challenge the assumptions which people hold. Following a potentially traumatic event, many people can revise their assumptive world or their perception of the events so that the fit between the two is good enough. Horowitz described this as the 'completion tendency' (1986). For example a teenager assaulted by a gang of youths could find a way to integrate that event into his beliefs as follows:

- The world is generally safe enough, but not that street at that time.
- Most people are benevolent, but some youths in gangs behave differently.
- I am strong and safe, but there were eight of them.

However, for some individuals a traumatic event has global, negative implications for now and the future. Previously helpful assumptions are shattered (Janoff-Bulman, 1992), the catastrophic messages of the trauma take precedence over previous beliefs, and new trauma-based beliefs are adopted such as:

- The world is unsafe.
- Others are evil.
- I am vulnerable.

Taking the example of the assaulted teenager, if the event led to new beliefs such as: 'The world is unsafe, others are evil and I am vulnerable', when his peers invite him out, based on his trauma-tainted beliefs, his immediate thought could be 'I'll get assaulted again'. This could lead to fear and physiological arousal which can be reduced by declining the invitation and staying at home. Avoiding going out deprives him of new experiences of going out and being safe, and so denies him the opportunity to re-evaluate the actual threat realistically. After a number of rejections, his peers will most likely stop inviting him. His mother may also have been shocked by the assault; she may feel guilty because she had not kept her son safe and may subsequently encourage him to stay home where she knows that he is safe. In this way he reinforces his belief that the only way to feel safe is to remain at home. This formulation is shown figuratively in [Figure 16.4](#).

Difficulties may also arise if the person misinterprets common symptoms of PTSD (Ehlers & Clark, 2000). For example if they think that their vivid flashbacks are actually psychotic hallucinations, they may be reluctant to talk about them and they may try even harder not to think about the event, which would maintain their difficulties. Some children construct an account of the event which includes the notion that it was their fault, or that they deserved it (this may be a way of preserving a belief that the world makes sense and that things happen for a reason). When they are reminded of the event they experience distress because of their guilt and as a result they avoid thinking about it. This avoidance may be strengthened by others who simply encourage the child not to think that way. They therefore deny themselves the opportunity to rethink the level of their responsibility more realistically (see [Figure 16.5](#)).

Vicarious avoidance

In an understandable attempt to protect a child from further distress, adults may deny them information or resolve not to talk with them about it. The child realises that no-one will talk about it and so does not mention the traumatic event. The adults then assume that all is well because the child is not talking about the trauma or their reactions to it, and so they do not mention it. This vicarious avoidance inhibits the child's opportunities to process the memory and reappraise unhelpful trauma-based beliefs with people whom they already know, love and trust, as shown in [Figure 16.6](#).

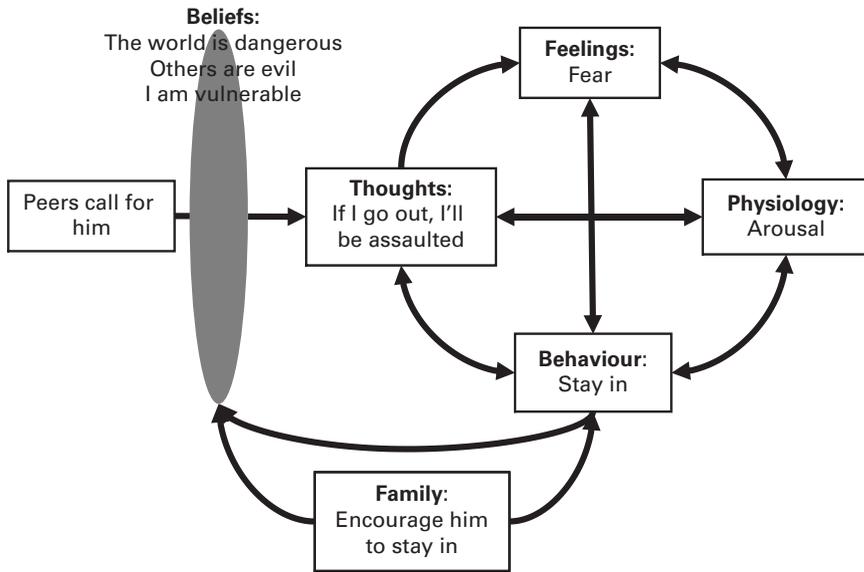


Figure 16.4 Cognitive-behavioural formulation for assaulted 14-year-old boy.

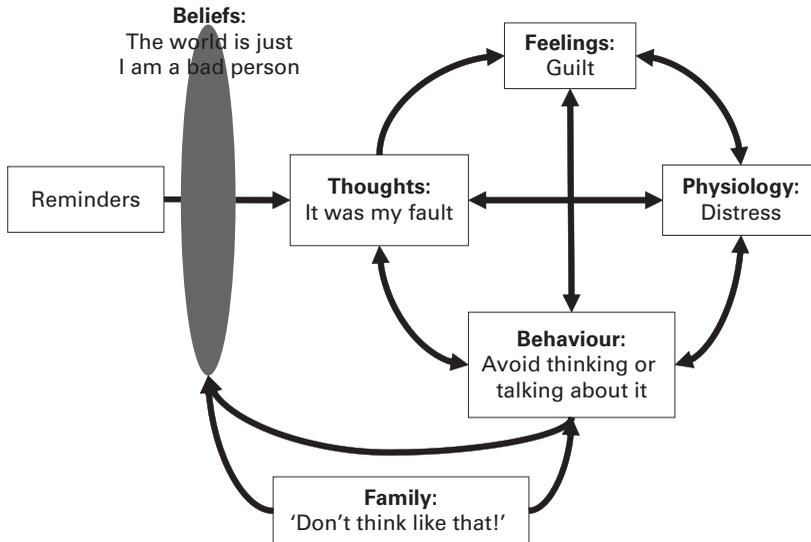


Figure 16.5 Guilt maintained.

In an attempt to make sense of the event the child may fill in the gaps and construct a story of their own making, which may be even worse than the reality. In the personal account of a 12-year-old girl, written 2 years after her father's suicide, she states: 'Later that evening I asked her [mother] how he had died, and she told me that he'd hanged himself. Although this was difficult to hear, it was better to know than to imagine something worse' (Turner, 2010, p. 2).

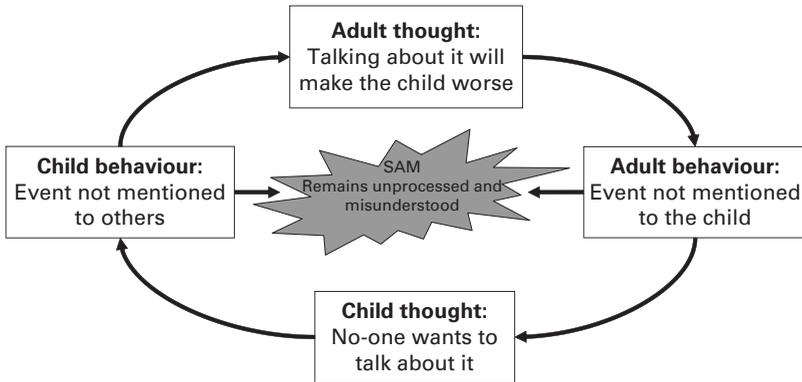


Figure 16.6 Maintenance cycle of vicarious avoidance.

Assessment

Clinical interviews

Developing sufficient rapport to complete an assessment of PTSD may be difficult especially for a child who has experienced an inter-personal trauma which has undermined their ability to trust others, particularly adults in positions of perceived authority. Beginning the assessment by interviewing the child together with their parent before conducting individual interviews may help. Information from various sources enables the clinician to understand the child's functioning before the event and how things have changed since, with particular reference to PTSD symptoms and the maintaining factors discussed above.

Assessment of PTSD includes some discussion of the traumatic event (or events). Children may try to protect their parents from further distress by not discussing the event or by under-reporting their symptoms in the assessment. Parents may minimise the extent of their child's distress if they feel in some way responsible for the event, or they may not have noticed their child's distress particularly if the child has tried to hide it from them. So it is no surprise that reports from child and parent can often be discrepant, particularly in younger children (Meiser-Stedman *et al.*, 2008). The parent may also be suffering from their own symptoms of PTSD or other mental health problems, which they do not wish to mention in front of the child; screening parents using appropriate adult measures should be considered. For these reasons it is helpful at some point to interview the child and the parent individually if at all possible.

A careful and detailed history that sheds light on potentially traumatic events, details of the symptoms including when they were first observed or worsened, and in what situations they are more and less pronounced can help to understand accurately the problems including comorbid difficulties. The aim of the assessment is to develop a formulation which helps the child and their parents to make sense of their distress and ongoing difficulties, and which will help guide the intervention. The re-experiencing of the memory of the traumatic event is sometimes considered the fundamental symptom of PTSD (Smith *et al.*, 2010), and this may be important in separating PTSD from other disorders. The formulation may help identify comorbid problems and guide the intervention. For example, if the child has depression which is maintaining the PTSD by preventing them from

overcoming their avoidance, the depression may need to be targeted for intervention first. Alternatively if the symptoms of depression are the result of PTSD, then the PTSD should be targeted first. The clinician can end the interview by thanking and praising the child for sharing so much information with them, even though some of it might have been difficult. This is also an opportunity to explain that the child's reactions are natural and understandable.

Some events will result in the involvement of the civil or the criminal courts. This can make the situation more complex but does not necessarily preclude therapy. If the child is going to give evidence at court, there are ways in which therapy may negatively impact on the process and outcome of the criminal proceedings. There is significant therapeutic potential of justice being seen to be done, and the impact of therapy on any trial should be very carefully considered. It can be useful to discuss these issues openly with the child, the family, and the prosecutor. There is excellent authoritative guidance available on these matters for practitioners in the UK (Home Office *et al.*, 2001).

Measures

Questionnaires and structured interviews may provide useful additional sources of information by enabling a systematic and quantitative evaluation of pertinent areas. This can support and strengthen (or weaken) clinical opinion; be used to measure change; or be used for screening large numbers of children.

The PTSD module of the Anxiety Disorders Interview Schedule (ADIS-IV; Silverman & Albano, 1996) and the Children's PTSD Inventory (CPTSDI; Saigh *et al.*, 2000) can be used by clinicians wishing to complete a structured diagnostic interview. Self-report questionnaires such as the University of California at Los Angeles (UCLA) Posttraumatic Stress Disorder Reaction Index (Steinberg *et al.*, 2004), the Child PTSD Symptom Scale (CPSS; Foa *et al.*, 2001), and the Children's Revised Impact of Event Scale (CRIES; Perrin *et al.*, 2005) can be used to gather brief and systematic reports of the frequency of PTSD symptoms. The Child Post Traumatic Cognitions Inventory (CPTCI; Meiser-Stedman *et al.*, 2009) assesses the child's view of the world including their symptoms since the event and the Trauma Memory Quality Questionnaire (TMQQ; Meiser-Stedman *et al.*, 2007) assesses the quality of the memory of the event.

Intervention

Formulation

Given the high rate of problems comorbid with PTSD, presentations may be complex. An approach to treatment which relies purely on diagnosis and a prescriptive manualised treatment is likely to be too simplistic. Typically, psychological interventions are based on an individual formulation, from which an appropriate intervention plan can be formed. Devising, revising and implementing a formulation and plan for intervention is identified as a necessary therapist competence for effective CBT (Sburlati *et al.*, 2011).

A formulation is the 'story' based on a psychological model that weaves together the available information about the individual child or young person and their experiences, to explain how a problem has come about and what is maintaining it. It is more than simply a *list* of predisposing, precipitating and perpetuating factors; a CBT formulation will explain *how* these different factors influence the presentation of the problem. A useful formulation will also identify specific targets for intervention and will lead directly to the plan for intervention.

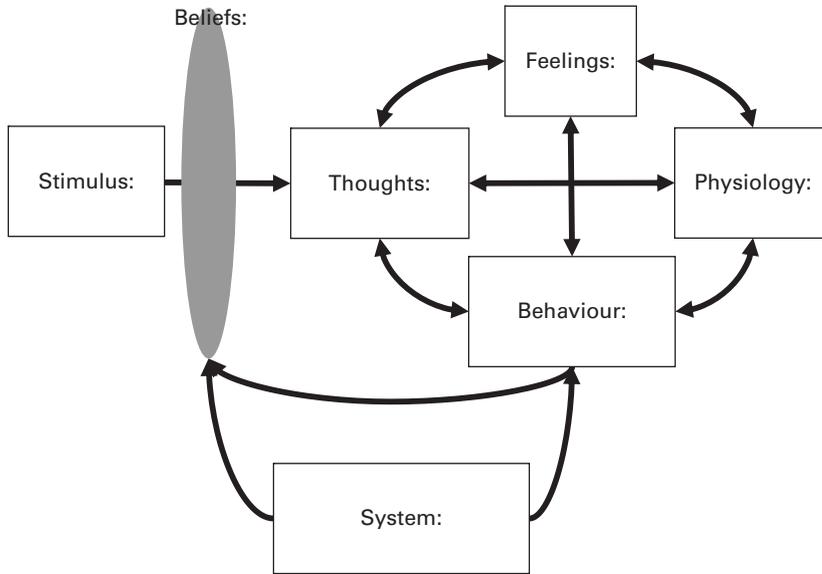


Figure 16.7 Formulation template.

Sharing the formulation, or at least part of it, with the child and family serves a number of purposes (Persons, 1989): it enables the clients to ensure that it fits with their experience; it communicates that the clinician has been listening carefully to what has been said; it explains that their reactions to the traumatic event are natural and do not mean that there is something fundamentally ‘wrong’ with them. It also explains the rationale for intervention which can increase their motivation.

A simple narrative formulation may be sufficient, but often diagrams can assist. Figure 16.7 shows an empty template drawing on elements from various sources (Beck, 1995; Beck *et al.*, 1979; Ehlers & Clark, 2000; Fennell, 1989; Greenberger & Padesky, 1995; Kelly, 1955), which could be used to share the formulation with the child and family.

Sometimes the traumatic event involves the death of someone close to the child. The traumatic nature of the death and subsequent symptoms of PTSD may inhibit grieving. The child may be *too scared to be sad* or they may be so set on avenging the death of their loved one, that their grieving is put to one side. In these situations, the child may need to process the event of the death before they can grieve their loss (Cohen *et al.*, 2006).

Key components

The cognitive model of PTSD, as described above, suggests that an effective intervention is likely to include a combination of three key components (Ehlers & Clark, 2000):

- Reducing avoidant strategies.
- Bringing the memory to mind to create a coherent narrative account of the event (narrative exposure).
- Developing a meaning that is both truthful and useful (cognitive restructuring).

These three components can be closely related and tend to build on each other, as described later in this chapter. Precisely how these tasks will be approached will depend very much on the individual formulation and child.

Evidence

Knowing that Trauma-Focused CBT (TF-CBT) is an empirically supported treatment for PTSD and being familiar with the evidence may give both the clinician and the child the confidence to think the event and its meaning through – the avoidance of which is responsible for much of the distress. There have been a number of randomised controlled trials (RCTs) which have been reviewed by various authors who have consistently concluded that TF-CBT is effective in the treatment of PTSD (Cohen *et al.*, 2009; Dalgleish *et al.*, 2005; Kowalick *et al.*, 2011; National Institute for Health and Clinical Excellence [NICE], 2005; Silverman *et al.*, 2008; Wolpert *et al.*, 2006.) Such interventions have proven to be useful with complex presentations and children from diverse cultural backgrounds and whilst the interventions examined in the RCTs do have some differences, they have many overlapping components (Cohen *et al.*, 2009), particularly a focus on the traumatic event and cognitive-behavioural aspects. A TF-CBT approach is also described in Chapter 10 in relation to child sexual abuse.

Laying the foundations for trauma-focused cognitive behaviour therapy

If the intervention is going to involve reducing avoidance of feared stimuli, re-living possibly the worst moments of their life through narrative exposure, and discussing the event in detail to develop a helpful meaning, then it is important to prepare children and their parents. Figure 16.8 illustrates the core components with the foundations that may be necessary before achieving them.

Stability, safety and systemic work

If the child is continuing to be exposed to instability or traumatic events, CBT is unlikely to be effective. As Vernberg and Johnston (2001) emphasised, 'It is difficult to overstate the

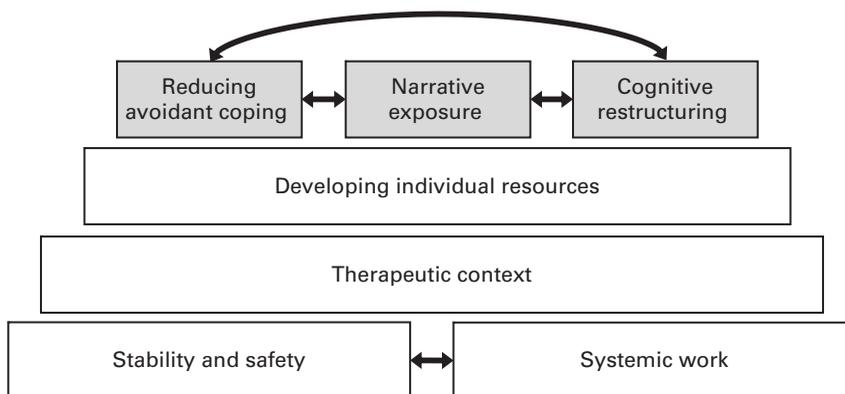


Figure 16.8 Preparatory steps and key components.

importance of creating a safe, stable caretaking environment as prerequisite for effective treatment. Clinical services for children and adolescents with PTSD must devote adequate resources and efforts toward this fundamental goal' (p. 234). Ensuring the the child's world is as familiar and predictable as possible, for example by reinstating normal routines, may go some way to ensuring that the child feels safe enough. If the school or family environment is maintaining the problem in some way (e.g. by being so protective that they communicate the message 'You are vulnerable' or by avoiding discussions of the event and thereby inhibiting processing of the trauma memory), the preparation should include some systemic work. This might include working with the family or school to raise awareness of the potential impact of their actions and messages being communicated. Gentle curiosity and Socratic questioning can begin to shed light on the source, merits and disadvantages of avoidance within the system. This, together with sharing information about the cognitive model of PTSD and the formulation of the current difficulties, can help to reduce avoidance. If parents and teachers can be helped to discuss the event in an open and containing way, then emotional and cognitive processing may take place within the family or school context, which may be preferable for the child to attending therapy. However, this is sometimes not possible either because the family members or school staff find such direct discussion too difficult or because the child is reluctant to discuss the event with the family or staff, so individual work is still necessary.

Psychoeducation with the child and family about PTSD (which may be done during the assessment and whilst sharing the formulation), may assist by explaining how the symptoms have developed. The discovery that reactions are natural and understandable may begin to shake any beliefs that they have been irrevocably changed as individuals. If homework is going to be a part of the intervention, it can be helpful to have the family members sufficiently involved so that they can support the completion of such tasks.

Therapeutic context

To reduce avoidant coping, complete narrative exposure and engage in cognitive restructuring, the child must feel safe enough within therapy and with the therapist to bring the traumatic event to mind despite the distress this causes them. Therefore therapeutic rapport warrants particular attention, especially if the trauma has affected the child's ability to trust others. The therapist must be perceived to be trustworthy and safe. The child will be more able to trust therapists who come across as calm, containing, confident and collaborative. The child can be given choices over aspects of therapy such as who will be interviewed, in what order, where they will sit, whether they would like to have someone with them or not, how the session is structured and some of the activities. Engagement and good rapport are crucial; they are, however, only a platform from which the therapy is delivered and are not the therapy itself.

Developing individual resources

Learning how to regulate their emotions may help the child to manage their symptoms of hyperarousal. The child is also likely to experience distress during exposure to the trauma memory, and if they know that they are able to manage this distress they are more likely to engage in the intervention (Vernberg & Johnston, 2001). However, it is important that the therapist does not spend so much time helping the child to develop resources that this ends up being avoidant. Helpful emotion management resources (which are covered elsewhere

in this volume) include emotional recognition, self-talk, relaxation, positive imagery and problem-solving. If the child arrives with a different problem that is preoccupying them then it may be worth tackling that problem first. However if every time that trauma-focused work is planned the child has another problem to be solved, this may be active avoidance and the therapist may want to explore this explicitly.

Reducing avoidant coping

Avoidance is a key maintaining factor in many anxiety disorders including PTSD. Although effective at reducing anxiety in the short term, avoidance often perpetuates the link between the trigger and the distress. With PTSD, triggers may be intrusive memories of the event, conversations about the event, or external stimuli that remind the person of the event. The avoidance may generalise such that the child avoids *all* roads, not just the one where the event took place. Methods used for other disorders to help children overcome their fears are likely to be useful with PTSD and in vivo exposure may be important for successful intervention. A referred 8-year-old girl, who had witnessed her brother being run over at a pedestrian crossing, subsequently refused to cross any road at any pedestrian crossing. She engaged well in therapy and did some excellent cognitive restructuring and narrative exposure. But her avoidance only changed when the clinician spent a session on in vivo exposure, helping her to cross the road with increasing degrees of independence. Children who avoid activities that they used to enjoy can be encouraged and supported to 'reclaim their life' (Smith *et al.*, 2010) and return to previously enjoyed activities. This may in turn undermine any thoughts they have about how the event has changed them.

Narrative exposure

Rationale

The aim of narrative exposure to the trauma memory is to enable the child to develop a coherent verbal account of the experience which incorporates the sensory and perceptual components, i.e. to develop a narrative or story of the event. If the traumatic memory is to be sufficiently processed in this way it will have to be brought to mind and thought through. This is likely to be accompanied by a degree of distress, so the child may understandably be reluctant. Similarly the clinician may not be keen to undertake work that is likely to elicit distress in their client. Explaining *how* avoidance perpetuates symptoms and how trauma-focused work can decrease their symptoms, can enable children and families to make well-informed decisions about whether to continue the avoidance or actively engage in trauma-focused work. It may also help to explain it further using a number of metaphors, some examples of which are described below.

The chocolate factory metaphor

A chocolate factory takes individual ingredients like cocoa, sugar and milk, and mixes them up to make chocolate bars which are then wrapped up. On the wrapper are words (the ingredients) which explain what is inside. Similarly we take different sights, sounds, smells, touches, tastes, feelings and thoughts and mix them up into packages of memory which are then 'wrapped up' in the words of a story. These 'wrappers' usually stop the different bits of sensory information spilling out when we do not actually want to open them up. We know what is inside each memory from the words on the outside.

In a chocolate factory if the milk is too hot, or the sugar is not ground down enough, then the machinery will not be able to mix them up. The ingredients will swirl around in the factory waiting to be processed. The machine might try again. But if something is still too hot or too big, it will break down again. Similarly some events are so scary or horrible, that people are unable to process the information into memories. So the 'ingredients' or the sensory information such as sights, sounds, smells etc. are left swirling around in their minds and come back into their awareness even when they are not wanted. Each time this happens, it might be too scary or horrible to think through and so the memory is suppressed and remains unprocessed.

The factory needs to wait for the milk to cool down, or it may need to get an engineer to help, or it might need to grind up the sugar carefully before the machinery can start working again. In the same way, sometimes after a short while people are better able to process the memory, or they may need some help from another person (social support or therapy) to think it through gradually, piece by piece in order to develop the story; i.e. wrap the memory up in words and accept what has happened. (The idea for comparing processing of memories to a factory is from Richards and Lovell, 1999; the idea of 'wrapping them in words' is novel.)

The wardrobe metaphor

Imagine a wardrobe where each item is put away neatly with similar items. When you need something, you know where to find it, you can take it out, wear it, and when you have finished using it you put it back in its place. There is a place for everything, and everything usually stays put. This means that you can close the doors and get on with other aspects of life. Memories for normal events work in a similar way. Each memory is stored alongside similar memories. When you want to remember an event you bring the memory to mind, and when you have finished you put the memory back. The memories usually stay put, which means that you can 'close the doors' and get on with other aspects of life.

But imagine if someone throws you a duvet full of stinging nettles and shouts 'Quick – put it away!' It would hurt to touch and so you shove it away in the wardrobe quickly and close the doors. But because it is not put away properly on a shelf, the doors would not close, so you have to stand there holding them. Whilst you are holding the doors closed, you might be able to get on with other things to a certain extent, but when you turn your back the duvet would fall out – stinging you all over again. Traumatic memories are like the duvet; painful to handle and so you might try to avoid them. You might 'shove them away' rather than think them through. This means that they are not stored in the same way as other memories. So they tend to fall into mind when you don't want them to. Avoiding them may seem like it works for a while, but often they intrude into consciousness again.

You need to take the duvet out, which might sting a bit, and you might want to get someone to help. You need to fold it up and might need to move some of the other things in the wardrobe so that you can place it carefully on the shelf. This means that the duvet stays put until it is wanted. In much the same way, traumatic memories need to be processed. Sometimes this is best done with some help from someone else (e.g. a parent or therapist). You might need to adjust your view of the world a bit, but thinking the memory through enables the memory to be processed and stored with other memories so that it stays put until you want it. (This is an elaborated version of an analogy contained in Ehlers and Clark, 2000.)

In order to process the ingredients, the factory might wait for the milk to cool down, it might call an engineer, or it might grind the sugar into smaller pieces. Similarly, to process the memory of an event people might wait for it to feel less frightening, ask others for help, or carefully think through the specific details of the event.

The waste paper bin metaphor

A 14-year-old male client was just about to do another session of trauma-focused work and he was reminded of the rationale using the metaphors above. He listened patiently and then said 'It's a bit like that, but actually, it's more like this'. He filled up the waste paper bin with scrunched up pieces of paper until it was over-flowing and said, 'These are all the bad things that have happened to me, and as I walk along the road to school [he made the bin walk along and bits of paper fell out] they fall in front of my eyes. And as I go to sleep [he lay the bin down and more pieces of paper fell out] they fall into my dreams.'

'But when I come here and talk to you, we take the pieces of paper out [he took each of the pieces of paper out], un-scrunch them [he un-scrunched them], and we read them through carefully. Then we fold them up neatly and place them back in the bottom of the bin. This means that they don't fall out, and I have more room in my head to think about other things.'

Completing the narrative exposure

The purpose of narrative exposure is to enable the child to process the memory of the event by bringing it to mind within the safe context of therapy. The link between the memory and the distress can be weakened in this way as the child is enabled to 're-experience all relevant thoughts and emotions in such a way that the distress can be mastered rather than magnified' (Perrin *et al.*, 2000, p. 285). A coherent narrative or story of the event can be constructed which 'wraps up and contains' the sensory information within a truthful and useful story.

It is important that the memory is activated enough to enable processing without the child becoming so distressed that they either stop half way through or dissociate. One 15-year-old boy repeated his detailed account of the trauma over a number of sessions, but there was no decrease in his nightmares. When he was asked if he had any thoughts about why it was not working, he said that he understood the rationale for the narrative exposure, and he genuinely wanted to do it. But each time he began to recount the memory of the event he was so worried that it would be too distressing that although he told the story of what happened he was actually thinking about what he was going to do that evening, which means that he avoided processing the actual memory. This frank exchange enabled the therapist to revisit some of the foundations for TF-CBT mentioned above and invest more time in setting the therapeutic context, by asking what did he think would happen if he thought about the event and what would make it safe enough to do so.

Different methods can be used to assist the child to work with the memory. Drawings, puppets, play figures and writing are all possibilities. Gupta and Zimmer (2008) use sheets of A4 simply divided into four, with the quadrants labelled 'My life before the event', 'The worst part of it', 'My life since the event' and 'My hopes for the future'. This simple method enables the child to tell the story, putting the worst moments into the context of a life history. 'Re-living' the event whilst in the safety of therapy is a common approach in which the child recounts the memory in detail, in the first person, present tense (Smith *et al.*, 2010). It is usual to encourage them to settle and focus, and then begin the account before the traumatic part so that the trauma can be put into a chronological context. The account continues until the point at which the child feels safe and secure. If they find recounting the

memory in detail too difficult, various forms of imagery can be used to gradually encourage them to engage more actively with the memory, e.g. initially imagining watching it on a DVD with the volume and colour turned off, being able to control it with the remote control. The child can rate their level of distress throughout the story, by indicating on a 'fear thermometer' or simply rating their distress from 0 to 10. Rather than allow the child to leave immediately after the re-living, it can be helpful to spend some time winding down, checking that the child is relaxed, doing some relaxation exercises if necessary and discussing other matters.

The memory of the trauma may need to be 'updated' with important missing information about what actually happened and why. This information may be obtained from others who were present, medical notes, or visits to the site of the event. For example, following a vehicle crash in which his father was killed, an 8-year-old boy could not make sense of what had happened. When he made a visit to the site of the crash with his mother and the police Family Liaison Officer, he could understand what had happened. This helped him to realise that his father was not at fault and to realise that ordinarily it is safe to travel by car.

In contrast, media accounts of trauma events are rarely helpful; their purpose is often to make the story as spectacular as possible, sometimes at the expense of accuracy, whereas the purpose of the narrative exposure is the opposite.

Following narrative work, the quality of the trauma memory tends to change: the sensory elements become less vivid as the words and the story take precedence. The process may need to be repeated in several sessions. Sometimes symptoms can diminish quickly, partly because of processing that takes place within the session, but it is also possible that once the child and family know that they can tolerate thinking or talking about the event, some processing takes place between sessions.

Sometimes, rather than avoiding thinking about the event, the child ruminates on a particular aspect of it. Often such rumination is driven by particularly distressing moments of the unprocessed memories. Rumination is unlikely to enable processing because it dwells on individual aspects of the trauma (such as 'why?') rather than processing the event from beginning to end. The memory is more likely to be processed and the rumination decrease if the child is encouraged to move from 'why' questions and instead focus their attention on what actually happened and how it came about (Smith *et al.*, 2010).

Cognitive restructuring

Smith *et al.* (2007) reported that changes to cognitive misappraisals during therapy were related to outcome in CBT for PTSD. Methods used for cognitive restructuring for other disorders are likely to be useful with PTSD and are discussed in depth in other chapters and other publications (e.g. Stallard, 2002, 2005). The focus for the work and the techniques used will depend on the formulation and the preferences of the particular child.

In their well-intentioned attempts to assist the child in revamping the meaning of the event, some clinicians can be too overtly challenging, and the child may end up not being open about their cognitions or even worse feeling that they have to robustly defend them when the aim is actually to enable the child to loosen their grip on their unhelpful beliefs and thoughts rather than cling to them more strongly. Gentle curiosity on the part of the clinician often leads to far more comprehensive accounts of the links between beliefs, thoughts, feelings and behaviour. Sometimes simply having these elements and the links between them made explicit begins to weaken their hold.

Children who feel in some way to blame for the event, and consequently do not think about it because of the accompanying distress, can ultimately be helped to re-think the event more accurately and helpfully. They can be encouraged to be more realistic about their role or realise that in fact their actions were an appropriate and valiant response to the situation (Yuen, 2007).

Cognitive restructuring within re-living

With PTSD, the cognitive restructuring may need to be done *within* re-living i.e. when the traumatic memory is active. This is because a child may make significant shifts in their beliefs and thoughts through cognitive restructuring during therapy; however these may not necessarily *reach* the traumatic memory, so outside of therapy when the memory is triggered, the cognitive restructuring can be ‘forgotten’. It is *as if* the information that fuels unhelpful beliefs is contained *within* the memory of the traumatic event. For example, during therapy a child may begin to believe that car crashes are in fact very rare, but away from the clinic room, if the memory of the event is triggered by a stimulus such as the siren from an emergency vehicle, the child reverts to the original trauma-based beliefs.

Therefore the results of the cognitive restructuring need to be inserted into the activated trauma memory. This involves repeating the cognitive restructuring whilst simultaneously doing narrative exposure (Ehlers & Clark, 2000) and can be done using whatever method of narrative exposure is acceptable to the child. If the child has produced a written account of the event, including their thoughts and feelings at the time of the event, this account can be re-scripted by adding extra sentences to update the account with helpful information (Smith *et al.*, 2010). For example:

And now I can see the car coming towards me and I think I am going to die. BUT NOW I KNOW THAT I DID NOT DIE.

Alternatively a more helpful interpretation can be practiced and inserted into the appropriate moment of the re-living. For example: ‘And now, as you see the man grabbing your mother, and you are thinking that he is going to kill her, what do you know now about what happens next that you wished you had known then?’

Conclusions

Research has broadly supported the cognitive model of PTSD in children, and therefore unsurprisingly a number of trials have shown that TF-CBT can be effective. However a number of questions remain unanswered in the child PTSD field. Although research in neuropsychology is assisting the understanding of the neuropsychological impact of traumatic events (McCrory *et al.*, 2010), as this research advances it may also answer questions about *how* CBT helps traumatised children and whether different approaches would be more useful for different children. Further trials of interventions may also help to inform clinical decisions such as whether TF-CBT in groups is better or worse than individual therapy, and whether it is enough for the child simply to *tell* the story or whether it is more important for the story to be *heard*.

In the borrowed words of A.A. Milne’s *Winnie the Pooh* (2004), this chapter has described how for a child, the memory of a traumatic event may be ‘very Thingish’ and indescribable,

resulting in substantial distress and impairment of everyday functioning. Cognitive behaviour therapy with a skilled and empathic therapist allows the ‘Thing’ and its associated beliefs, to be invited out ‘into the open’ and with ‘other people looking at it’ can lead to the creation of a coherent narrative with helpful meaning. This in turn leads to a decrease in distress and an increase in functioning as the ‘Thing’ crucially becomes less ‘Thingish’.

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Phobic anxiety

Ella L. Milliner, Lara J. Farrell and Thomas H. Ollendick

Children typically experience a range of fears during the course of their development. The content of these fears follows a predictable course that coincides with increasing cognitive development (Gullone, 2000; Muris *et al.*, 2000; Ollendick *et al.*, 2004), from concrete fears in infancy and toddlerhood (e.g. strangers and animals) to increasingly more abstract fears in childhood (e.g. ghosts, the supernatural) and adolescence (e.g. social fears, agoraphobia). Specific fears tend to peak in early childhood between the ages of 7 and 9 years and then begin to decline in children 10 years and older (Muris *et al.*, 2000). While typically transient in nature, for some children fears persist and become more frequent, intensive and durable in nature, eventually evolving into a phobia (Ollendick *et al.*, 2004).

Phenomenology and epidemiology

According to the *Diagnostic and Statistical Manual of Mental Disorders* (DSM-IV-TR; American Psychiatric Association, 2000) a specific phobia is an intense and persistent fear cued by the presence or anticipation of a specific object or situation. Exposure to the phobic stimulus typically provokes an immediate anxiety response or panic attack in the child and the phobic stimulus is typically avoided or, if avoidance is not possible, endured with considerable distress. Moreover, avoidance of the phobic stimulus generally interferes significantly with the child's academic, social and family functioning. The fear cannot be better accounted for by another mental disorder. The DSM-IV-TR criteria take into consideration the tenets of developmental psychopathology and specify that fear should not be transient and must be present for at least 6 months in children. Additionally, unlike adults, children are not required to recognise that their fear is excessive or unreasonable. The DSM-IV-TR further classifies specific phobia into five major subtypes: animal (e.g. dogs, insects, snakes), natural environment (e.g. thunderstorms, heights, darkness), situational (e.g. elevators, enclosed places, flying), blood-injury/injection (e.g. seeing blood, injections) and other (e.g. loud noises, costume characters). Animal and natural environment phobias are the most frequently observed types of phobia in children and adolescents (Last *et al.*, 1992; Milne *et al.*, 1995; Silverman *et al.*, 1999), including phobias of dogs, insects, heights, the dark and storms.

Lang's tripartite model (Lang, 1967, 1979; Lang *et al.*, 1998) describes fear and the phobic response as comprising three components: cognition, physiology and behaviour that are in line with the DSM-IV-TR criteria. When exposed to phobic objects or situations children

and adolescents may think catastrophic thoughts, for example the dog will bite me, the injection will get stuck in my arm (cognitive component), experience activation of their autonomic nervous system, including increased heart rate and/or breathing, sweating and shaking (physiological component) and engage in avoidance behaviour such as running away, crying, having a tantrum, freezing or clinging to their caregiver (behavioural component; Davis & Ollendick, 2011).

Specific phobias are highly prevalent, affecting approximately 5–10% of children and adolescents in community samples and 15% in mental health settings (Bener *et al.*, 2011; Kessler *et al.*, 2005; Ollendick *et al.*, 1997). The average age of onset for specific phobias is 9–10 years of age. However, similar to normative fears, the onset of specific phobia types follows a developmental progression. For example, animal phobias typically emerge at 7 years of age, followed by blood-injury/injection phobia at 9 years, situational fears at approximately 13 years of age and claustrophobia at 20 years of age (Öst, 1987). Phobic youth frequently experience academic difficulties (Dweck & Wortman, 1982; Ialongo *et al.*, 1995; Klein & Last, 1989), social and personal distress (Ollendick & King, 1994; Ollendick *et al.*, 2002; Strauss *et al.*, 1989) and interference in their day-to-day activities (Essau *et al.*, 2000; Ollendick *et al.*, 1997, 2004; Silverman *et al.*, 1999). If untreated, childhood phobias may persist into adolescence and adulthood (Ollendick *et al.*, 2004). Moreover, they may lead to the development of other psychiatric disorders including adult anxiety, mood and substance use (Kendall *et al.*, 2004).

Specific phobias are frequently comorbid with other psychiatric conditions. Community and clinical studies suggest that 25–72% of phobic youth meet criteria for at least one other comorbid diagnosis (Costello *et al.*, 2004; Last *et al.*, 1992; Ollendick *et al.*, 2002, 2010; Silverman *et al.*, 1999). Most commonly, specific phobias co-occur with other types of anxiety disorders, including other types of phobia, generalised anxiety disorder, social anxiety disorder, separation anxiety disorder and obsessive-compulsive disorder. In fact, prevalence rates indicate that 50% of phobic youth meet criteria for at least one other type of phobia (Costello *et al.*, 2004). Comorbidity with mood and externalising disorders (e.g. oppositional defiant disorder and attention deficit hyperactivity disorder) is also observed (Last *et al.*, 1992). Interestingly, current research suggests that comorbidity does not adversely affect phobia treatment outcome. For example, Ollendick *et al.* (2010) reported that successful treatment of specific phobias in their clinical sample was not adversely affected by the presence of comorbid anxiety disorders and also was associated with reductions in the clinical severity of the other comorbid anxiety disorders (Ollendick *et al.*, 2010).

Aetiology

Specific phobias in youth have a complex aetiology that is multi-determined (King *et al.*, 2004). Genetic influences, parenting, learning experiences and evolutionary preparedness are all factors thought to be involved in the development of vulnerability for a specific phobia (Coward & Ollendick, in press).

It is evident from family and twin studies that phobias are highly familial, with the offspring of phobic individuals significantly more likely to develop the same type of phobia as their parent (LeBeau *et al.*, 2010). Some studies however suggest a common vulnerability for animal, natural environment and situational phobia subtypes and a separate genetic risk for blood-injury/injection phobia (Hettema *et al.*, 2005). Moreover, other studies again

suggest a general genetic risk factor that places an individual at risk for a range of anxiety disorders (Taylor, 1998). Thus, genetic influences appear to play a role in the development of a specific phobia; however, the specificity of the genetic vulnerability is so far unclear.

Parenting factors are also believed to play a role in the development of childhood phobias. Parents of anxious children have been found to have a more intrusive and 'overprotective' parenting style (Barrett *et al.*, 1996; Chorpita, Albano & Barlow, 1996). Parents with this style tend to intervene and attempt to protect their child from negative experiences (e.g. injury, failure and misfortune). In regard to phobias, parents may accommodate and reinforce their child's phobic avoidance to prevent their child from potential negative experiences. Thus children are prevented from having a positive learning experience with the phobic object that could challenge their fear-related beliefs (Coward & Ollendick, in press). For example, a parent may allow their child to stay home from school because their class is going on an excursion to the zoo and the child has a fear of snakes; or the child is allowed to avoid a friend's birthday party because they have a fear of costume characters and there will be a clown at the party. In these instances the child does not have the opportunity to learn that the fearful events they anticipate do not occur, or that they could in fact cope with the anxiety associated with the situation/object.

According to Rachman's theory (1976, 1977), three learning pathways are associated with phobia acquisition: direct/classical conditioning, vicarious conditioning (modelling) and the transmission of negative information. Classically conditioned phobias are acquired through a direct negative experience with the phobic object/situation. For example, a child who experiences dangerous conditions and damage to property during a severe storm and then develops a storm phobia, would be said to have acquired their phobia through direct conditioning. In contrast, phobias acquired vicariously involve modelling and observation of others' anxious behaviour towards the phobic object/situation. An example of this type of phobia acquisition would include a child who develops a phobia of dogs after watching their mother or father behave in a fearful manner around dogs. The third learning pathway proposed to result in phobia acquisition is that a child may acquire a phobia through hearing or reading negative information about the phobic object/situation. For example, a child may develop a phobia of injections after a peer relays to them the traumatic circumstances they experienced when they were held down and forcibly given an injection.

The aforementioned aetiological pathways may not account for all causes of specific phobia. The non-associative model of fear acquisition proposes that some fears are biologically prepared through evolution (e.g. heights, snakes, water) (Menziez & Clarke, 1995; Poulton & Menziez, 2002; Poulton *et al.*, 2000). According to this model, at some point in time, these fears were evolutionarily adaptive and necessary for survival and they were passed on to us from our ancestors and therefore do not require critical learning experiences. For example, fear of heights or darkness may be characterised as being evolutionarily adaptive fears that, in some children, become excessive and phobic in nature through this complex interaction of environment, learning and biological vulnerability.

In recent years there has been considerable research into the role of disgust in the aetiology and maintenance of anxiety disorders (Moretz *et al.*, 2011). This research has predominantly focused on two types of specific phobia: animal (specifically spider) and blood-injury/injection (de Jong *et al.*, 1997; Olatunji *et al.*, 2006). Disgust is believed to be a concurrent emotion that interacts with fear and results in increased avoidance behaviour (Phillips *et al.*, 1998). Research suggests that disgust sensitivity in children is significantly correlated with small animal and spider phobias (de Jong & Muris, 2002; Muris *et al.*, 2008).

de Jong and Muris (2002) compared spider-phobic children and non-phobic children on belief ratings of disgust sensitivity, likelihood of a spider entering their living space and approaching them and subjective probability of a spider doing them harm. Additionally, they were asked to indicate their willingness to eat a favourite food item shortly after it had been in contact with a spider. Phobic children reported high ratings on the probability of a spider entering their room, approaching them and making physical contact. Additionally, they reported higher ratings concerning spiders' disgust-evoking status. The spiders' disgust-evoking status was found to be the strongest predictor of spider phobia. The contribution of the subjective probability of a spider doing harm was found to be insignificant. From this study deJong and Muris (2002) concluded that spider phobia is essentially a fear of physical contact with disgusting stimuli. In a recent study, Muris *et al.* (2009) exposed youth aged 9–14 years to disgust-related information, cleanliness-related information and threat-related information about unknown animals. A bi-directional relationship was found between fear and disgust with disgust-related information promoting fear beliefs and conversely, threat-related information enhancing feelings of disgust (Muris *et al.*, 2009). Furthermore, they found that children who received disgust-related information were less likely to approach the unknown animal. To date, the majority of research investigating the relationship between disgust and specific phobia has focused on adults, while relatively little attention has been given to children. Further research is needed to explore a developmentally sensitive role of disgust in the aetiology of phobias in children.

Evidence-based assessment

A comprehensive assessment is critical to the provision of effective treatment for specific phobia. Ideally, assessments should be multi-method (e.g. clinical/diagnostic interview, self-report questionnaires, observation) and multi-informant (e.g. child, parent, teacher) as this allows for a complete diagnostic picture of the child across contexts and settings (Davis & Ollendick, 2011; King *et al.*, 2005; Silverman & Ollendick, 2005). All aspects of the phobic response (cognitive, physiological, behavioural) should be investigated to develop a complete understanding of the child's phobia. Furthermore, given that specific phobias are highly comorbid, a broad assessment of psychopathology is required to assist in differential diagnosis (e.g. separation anxiety versus phobia of the dark) as well as identifying comorbid conditions. Clinicians also need to take into consideration the child's developmental level and what is normative given the developmental trajectory of fear. A range of assessment tools including diagnostic interviews, questionnaires and observational methods are recommended for the assessment. A combination of these measures will provide the most comprehensive understanding of a child's phobia and lead to the selection of the most appropriate treatment approach. For the purposes of this chapter we focus our review on assessment measures unique to specific phobia. Broad-based anxiety measures including diagnostic interviews and self-report measures are reviewed elsewhere (see Silverman & Ollendick, 2005).

Questionnaires

The Fear Survey Schedule for Children Revised (FSSC-R; Ollendick, 1983) is considered the gold standard specific phobia questionnaire. It is a self-report measure that assesses overall fearfulness and provides information about a range of specific and social phobias. The

questionnaire requires children and adolescents to rate their level of fear to 80 objects/situations. The FSSC-R contains five factors including fear of danger and death, fear of failure or criticism, fear of the unknown, fear of small animals and medical fears. Higher scores indicate greater overall fearfulness and may suggest a specific phobia. Investigation of phobia-specific items can assist with determining the presence and severity of different types of phobia. The FSSC-R provides norms for boys and girls of various ages and nationalities. It has been translated into several languages and has well-established reliability and validity (Weems *et al.*, 1999; Silverman & Ollendick, 2005).

Questionnaires are also available that assess individual phobia types such as the Spider Phobia Questionnaire for Children (SPQ-C). The SPQ-C consists of 29 items and provides the clinician with an overall spider fear score (Kindt *et al.*, 1996).

Behavioural approach tests

Behavioural approach tests (BATs) are an essential part of any phobia assessment as they allow for direct observation of the child's phobic response. A BAT is a standardised and controlled test in which individuals are asked to approach a phobic object or stimuli (Ollendick *et al.*, 2004). For example, a child who is afraid of spiders may be brought to a closed door and informed that inside the room there is a table with a spider in a container. The child would then be instructed to enter the room, walk to the table, open the lid of the container, pick up the spider and hold it for 20 seconds. The child would be told that they only need to complete as much of the task as they feel comfortable with and that they can stop at any time. The degree to which the child complies or avoids the therapist's instructions gives an objective measure of phobic avoidance (Ollendick *et al.*, 2004). At different time points throughout the BAT the clinician may ask the child to rate their level of fear on a 0 (not at all) to 8 (very high) Likert scale. Additionally, physiological data such as heart rate and heart rate variability can be collected to allow for assessment across all three components of the child's phobic response (cognition, physiology and behaviour).

Although behavioural approach tasks may be difficult to arrange (e.g. retrieving, storing and caring for stimuli or scheduling outside clinic visits), particularly for private practice clinicians with limited resources, assistance and space, the incorporation of BATs in the assessment process is strongly recommended. The BAT is an important tool for treatment planning as it provides a foundation on which to establish a graduated exposure hierarchy (Cowart & Ollendick, in press). The child's behaviour during the BAT gives an indication of a starting point for treatment and what the child is able to cope with in terms of interacting with the phobic object or situation. Moreover, the BAT gives insight into the child's motivation to overcome their fear and their willingness to engage in therapy (Cowart & Ollendick, in press). A standardised BAT assessment protocol can be developed and adjusted for a range of phobia types. Performance on the BAT can be measured by the percentage of steps completed by the child (see Table 17.1) and their fear ratings (Ollendick *et al.*, 2004).

Phobic beliefs

Children's expectancies and catastrophic cognitions (e.g. the dog will bite me, the needle will touch my bone; the plane will crash) regarding their phobic object or situation are involved in the maintenance of their avoidance behaviour (Öst, 1997; Öst & Ollendick, 2001; Zlomke & Davis, 2008). It is essential for the clinician to thoroughly elicit and assess the child's phobic beliefs prior to commencing treatment. This can be achieved through a

Table 17.1 Behavioural approach test (BAT) example steps for a phobia of dogs.

BAT steps

1. Does not open door
2. Opens door, but does not go in
3. Steps inside the room
4. Stays 1 metre from dog
5. Stands arm's length away from dog for < 20 seconds, but does not attempt to pet dog
6. Stands arm's length away from dog for \geq 20 seconds, no attempt to pet dog
7. Stands within arm's reach of dog, reaches out to dog but does not make contact
8. Stands within arm's reach of dog and pets dog anywhere on dog's body (not head) for < 20 seconds
9. Stands within arm's reach of dog and pets dog anywhere on body for \geq 20 seconds
10. Stands within arm's reach of dog and pets dog on head for < 20 seconds
11. Stands within arm's reach of dog and pets dog on head with one hand \geq 20 seconds

clinical interview (see Öst & Ollendick, 2001) or during the BAT. To gain an objective measure of the phobic beliefs the child can be asked to rate on a 9-point scale (0–8) how likely the belief is to occur (probability), how bad it would be if it actually occurred (danger) and how sure they are that they could cope with the event were it to occur (self efficacy). This can be carried out for the child's most severe phobic beliefs and be re-evaluated during and following the completion of treatment.

Evidence-based treatment

Several interventions have empirical support for the treatment of child and adolescent phobias (Davis & Ollendick, 2005). The most commonly used strategies and those with the strongest evidence base are derived from behavioural and cognitive-behavioural perspectives. Exposure-based therapies have been proven to be particularly efficacious (Wolitzky-Taylor *et al.*, 2008). As well, systematic desensitisation, reinforced practice and participant modelling have also been shown to be effective with phobic youth (King *et al.*, 2005).

Systematic desensitisation

Developed by Wolpe (1958), systematic desensitisation (SD) is one of the earliest and most influential treatments for specific phobia in youth. This approach is purported to work through the process of reciprocal inhibition – the notion that an individual cannot experience two competing emotions (e.g. fear and relaxation) simultaneously. Systematic desensitisation involves exposing the patient to a feared object or situation while having them engage in an anxiety-inhibiting response. For treating anxiety disorders, Wolpe (1958) generally recommended use of relaxation techniques; however, he also suggested other counter-conditioning agents such as humour and eating could weaken the anxiety response. Systematic desensitisation typically proceeds with training in progressive muscle relaxation and the development of an exposure hierarchy. During exposure tasks the child is coached to use progressive muscle relaxation. Hence, in the presence of the phobic object or situation the child experiences minimal levels of anxiety. In theory, the association

between the phobic object and the child's fear response weakens through the child not experiencing excessive levels of fear during exposure tasks (e.g. a spider no longer elicits a fear response; Davis & Ollendick, 2005, 2011).

The theory and procedure of SD have been increasingly criticised in recent years (Davis & Ollendick, 2011). More recent research has led to an understanding of exposure therapy as creating competing, context-specific learning as opposed to Wolpe's (1958) 'counter-conditioning' hypothesis or unlearning of the fear response (Bouton, 2004; Davis & Ollendick, 2011). In the last decade research has moved away from SD towards exposure therapy which involves fewer distractions (Davis & Ollendick, 2011). Interest in SD research has waned and more recent large-scale randomised controlled trials with carefully diagnosed youth have not used systematic desensitisation as their treatment of choice.

Reinforced practice

Based on operant conditioning principles (i.e. reinforcement, shaping, extinction and verbal feedback), reinforced practice (RP; also referred to as contingency management) is another behavioural approach used to treat childhood-specific phobia. This approach involves reinforcing successive steps towards a feared object or situation, thereby overcoming avoidance behaviour (Davis & Ollendick, 2005). Reinforced practice requires the clinician to develop a graduated exposure hierarchy with the child. However, unlike SD it does not include the use of a competing response. Reinforced practice alters avoidance behaviour through the manipulation of the consequences of the behaviour. Together the child and clinician develop a list of desirable reinforcers (e.g. praise, stickers, food items). The clinician gives the discussed reinforcers to the child contingent upon their completion of increasingly difficult steps on the fear hierarchy. Behaviour can be shaped and changed over time using this technique. The schedule of reinforcement is gradually decreased and then eventually faded out altogether as the child becomes more competent in facing their fears.

To date RP has not been used alone to treat childhood-specific phobia, but rather has been implemented successfully as a component of an integrated behavioural approach (Silverman *et al.*, 1999). Of theoretical and practical importance is the distinction between RP and SD. Frequently RP and SD are confused in the literature and often misconstrued as 'distractors' or 'safety behaviours' (Davis & Ollendick, 2011; Ollendick *et al.*, 2009a). This is especially apparent when techniques other than relaxation are used in SD (e.g. eating or humour – any behaviour that competes with fear). The critical distinction between SD and RP is whether a competing response or a reinforcer is delivered (Ollendick *et al.*, 2009a). The goal of SD is for the child not to experience fear, whereas the goal of RP is for the child to experience manageable levels of fear and allow for extinction of avoidance to occur (Davis & Ollendick, 2011). Thus, in SD, a competing response is initiated *before* fear occurs, in an attempt to prevent the fear response from occurring. In contrast, the reinforcer in RP is given as soon as possible *after* the approach behaviour occurs.

Modelling and participant modelling

Modelling, based on social learning theory, involves the therapist (i.e. model) demonstrating how to approach and interact with the phobic object or situation (Davis & Ollendick, 2005). Watching another successfully interact with the feared stimulus is believed to weaken the relationship between the unconditioned and conditioned stimulus in the observer, as new

context-specific inhibitory learning begins to challenge their fear (Ollendick *et al.*, 2009a). Participant modelling (PM) extends upon basic modelling and encourages the observer to interact with the model and the feared stimulus (Ollendick *et al.*, 2009a). For example, children and adolescents are encouraged to interact with the model and phobic stimuli using a range of techniques including verbal instruction and physical contact, from simply standing beside the model for ‘hand-over-hand’ assistance where the child places his or her hand on the model, who is touching the phobic object (Davis, 2009; Davis & Ollendick, 2011). For example, when treating a child with a spider phobia, PM may progress as follows: (1) the therapist models allowing the spider to walk over their hand; (2) the child is instructed to place their hand on the therapist’s upper forearm; (3) the child is gradually encouraged to move their hand down the therapist’s arm; and finally, (4) the therapist uses hand-over-hand assistance to help the child while the spider walks across their hand. Gradually therapist instruction and physical contact is phased out. The goal of PM is for the child to eventually be able to independently engage in steps from their fear hierarchy.

Similar to RP, PM alone has not been evaluated in large-scale randomised controlled trials with carefully diagnosed youth. However, PM has the additional benefits of skill building (e.g. learning how to safely catch and remove a spider from indoors) and breaking down exposure tasks into more manageable steps (e.g. holding a spider versus observing someone hold a spider followed by placing your hand underneath the hand of someone who is holding a spider). Participant modelling is often misconstrued as only being useful with animal phobias (Davis *et al.*, 2009; Zlomke & Davis, 2008). In fact, PM can be and has been used with multiple phobia types such as costume characters, blood-injury/injection and heights. For example, the therapist could model holding the hand of a costume character. The child could then move their hand gradually down the therapist’s arm until they have their hand over the top of the therapist’s and the costume character’s hand. Similar activities could be carried out with other phobias.

Cognitive behaviour therapy

Cognitive behaviour therapy (CBT) uses a combination of behavioural and cognitive techniques. It aims to address and modify behavioural avoidance and physiological arousal associated with avoidance, as well as catastrophic cognitions, attentional biases and cognitive distortions (Beck, 1993; Beck & Clark, 1997; Davis & Ollendick, 2005; Kendall 1993). For specific phobias, CBT typically involves behavioural techniques including graduated exposure, reinforcement, participant modelling, psychoeducation about the phobic stimuli, behavioural skills to assist with interacting with the phobic object, and cognitive techniques such as skills to identify and challenge cognitive biases and distortions. Cognitive behaviour therapy has been found to be superior to a control group and waitlist control (Graziano & Mooney, 1980; Kanfer *et al.*, 1975) and comparable to RP (Silverman *et al.*, 1999). Cognitive behaviour therapy, including one-session treatment (OST; Ollendick *et al.*, 2009b, see below), is currently considered an efficacious treatment for youth diagnosed with specific phobias, and is considered the first-line treatment of choice.

Case example 1

Oliver (not his real name), a 12-year-old boy, lived with his parents. His mother (age 40) and his father (age 42) resided together with Oliver, who was an only child. Oliver was referred for cognitive behaviour therapy for food neophobia. Oliver’s fear of food

significantly interfered with his own and the family's lives. Oliver was reported to have had an extremely restricted diet eating only plain chicken, plain white rice, crackers, bacon and eggs (a particular way). His parents stated that he refused to eat in the same room as them, would not enter the kitchen when food was being prepared and was unable to touch a dinner plate other than his own. Oliver was particularly afraid of fruit and vegetables, and foods that were mixed together, such as casseroles. He would refuse to touch or even look at leafy vegetables, such as lettuce. If taken to a supermarket, Oliver would become highly distressed, crying and asking his mother to leave. Oliver's parents were both from Italian families and loved to cook and share meals with their extended family on special occasions. Oliver's parents indicated that they had stopped attending these family meals as they were embarrassed by Oliver's behaviour and restricted diet. Furthermore, Oliver's fear caused considerable family conflict and distress at meal times.

Assessment

Oliver and his parents were interviewed using the Anxiety Disorders Interview Schedule for DSM-IV – Child/Parent Version (ADIS-IV-C/P; Silverman & Albano, 1996). Oliver's mother indicated that Oliver had feeding difficulties from infancy. She stated that she had been unable to produce sufficient breast milk and therefore Oliver had been bottle-fed. She reported that Oliver often had difficulties attaching to the bottle. He was said to have always struggled with trying new foods, and been a fussy eater and underweight throughout his life.

Based on Oliver's report and that of his parents during the diagnostic interview, Oliver was diagnosed with a specific phobia of food with a clinician severity rating (CSR) of 7 (scores range from 0 to 8), indicating a fear in the severe range. Additionally, Oliver was diagnosed with attention deficit hyperactivity disorder (ADHD) with a CSR of 4. Oliver himself endorsed a high level of fear of food during the interview. He also reported some inattentive symptoms of attention deficit hyperactivity disorders. He had previously been diagnosed with ADHD and was currently receiving stimulant medication (dexamphetamine) at the time of the family's referral. During the initial assessment, a BAT was administered during which Oliver was asked to enter a room and eat a piece of lettuce from a bowl on a table. Oliver opened the door but refused to enter the room and reported his subjective anxiety to be at an 8 (on a scale ranging from 0–8).

Treatment

Oliver and his family participated in 15 one-hour weekly sessions of cognitive behaviour therapy. His treatment commenced with psychoeducation regarding anxiety and monitoring of his fear and avoidance between sessions (Session 1 onwards). Following this, Oliver was taught breathing and relaxation strategies to assist him in managing his physiological phobic response (Session 2). Sessions 3–4 focused on identifying his negative cognitions about food and eating. Oliver reported disliking the texture, colour (particularly green), smell and consistency of certain foods. He underestimated his ability to cope when trying new foods. He was extremely fearful of having to try new foods and was certain that he was unable to do so. He believed he could not possibly bring himself to put the food in his mouth, and that he would vomit if made to eat something new. An exposure hierarchy was constructed based on Oliver's monitoring of his fear and avoidance (refer to [Table 17.1](#)). In each session (sessions 5–14) exposure activities were carried out and Oliver's negative cognitions were tested and challenged. In the early sessions, Oliver would often become

highly distressed during exposure activities, crying and refusing to touch or try foods. He would often say 'I can't do it'. Eventually, however, he would complete the task as quickly as possible, to the point that he would try and swallow foods whole, rather than have to bite and chew into them. During exposure tasks Oliver was provided with psychoeducation about food and encouraged to focus his attention on the positive aspects of food and foods he enjoyed. Furthermore, exposure tasks were broken into very small steps for difficult foods (e.g. fruits and vegetables – look, touch, chop up, dice up, make a salad, watch someone eat, smell the food, hold the food, etc.). The goal of the exposure task was to have Oliver put the food in his mouth, and hold it there for as long as possible until the fear subsided. He would then move onto chewing the food as slowly as possible and for as long as possible, again to allow his anxiety to subside. His avoidance during exposure was addressed by asking him to describe in detail first the appearance of food, then the smell of food, and finally the taste and texture as he progressed with each exposure task (the order varied for different foods depending on the fear associated with smell versus appearance versus taste). Moreover, Oliver's parents were trained in contingency management and Oliver received points towards rewards that he had negotiated with his parents (e.g. iTunes cards). Outside of the therapy sessions the family practiced a step from Oliver's exposure hierarchy every day for 1 week.

The therapist had a supportive and trusting relationship with Oliver. He made considerable progress during the course of therapy. Following session 14 Oliver was reassessed. His fear had reduced considerably from his pre-treatment levels as evidenced by a CSR rating of 3 (subclinical level) on the ADIS-IV-C/P. On a BAT (identical to the one used at pre-treatment) Oliver was able to touch lettuce and place a piece to his lips, and then in his mouth. He was unable to chew and swallow the lettuce; however, he offered to eat some corn instead! His beliefs had shifted over the course of therapy, with Oliver reporting during the post-BAT: 'I could eat it and nothing bad would happen, but I just don't like lettuce and will probably always be a bit fussy. For vegetables, I'll eat corn, onion, carrot or potato though, and I think that will do for now.' He continued to meet criteria for ADHD (CSR = 4) based on his diagnostic assessment. It was decided that the family would continue to practice outside of therapy and attend follow-up sessions once a month to assist Oliver in making gains and maintaining progress achieved in treatment.

One session treatment

Recently, cognitive behavioural techniques have been incorporated into an intensive one session treatment (OST) package for specific phobia in children and adults (Öst, 1989). A one session treatment involves a 3-hour massed exposure session which includes psychoeducation and skills training, cognitive restructuring, graduated and in vivo exposure, PM and RP.

Prior to the OST the therapist meets with the child and parent for a separate 45-minute functional assessment session during which the therapist elicits the child's phobic cognitions, develops a graduated exposure hierarchy and provides the family with information about the OST session (Cowart & Ollendick, in press; Davis *et al.*, 2009). The session also gives the therapist an opportunity to build rapport with the child and increase their motivation for treatment. The therapist explains to the family the rationale for treatment. The child is encouraged to think of themselves as a 'detective' or 'scientist' testing out their cognitions through a series of behavioural experiments (e.g. exposure tasks; Cowart &

Ollendick, in press; Davis & Ollendick, 2011; Davis *et al.*, 2009). They are informed that treatment will proceed at their pace and that nothing will be done without their permission. Children are advised that the goal of the session is not to shock or surprise them, rather, for the clinician and child to work as a team to gradually face the child's fear. The clinician also indicates that the child will need to experience some fear during the session to overcome their phobia; however, this will be a manageable amount and that if they remain in the situation, without avoiding, their fear will subside or considerably reduce (Davis *et al.*, 2009). Finally, the clinician emphasises that the OST is just the start of overcoming their fear and that they will need to continue practicing what they have learnt following treatment. While a great deal can be accomplished in the single 3-hour session, it may take several weeks or even months to consolidate treatment gains (Davis *et al.*, 2009; Öst & Ollendick, 2001; Zlomke & Davis, 2008). Ideally the functional assessment is carried out 1 week prior to the OST to allow time to use the information gathered to prepare for the exposure session. However, if a family lives a considerable distance from the treatment clinic, the functional assessment can be carried out the day before or on the day of treatment (Davis *et al.*, 2009).

From one child to the next, OST sessions vary considerably, even when the same type of phobia is being treated. Unfortunately, there is no standard format for structuring an OST session (Davis & Ollendick, 2011; Ollendick *et al.*, 2009b). This is because the therapist proceeds at the child's pace and adjusts their approach based on the child's response to various exposure tasks (i.e. fear level and behaviour). Ideally, at least three phobic objects or situations are introduced over the course of the session (approximately one per hour). To engage the child and increase their motivation to participate in treatment, exposure activities should be fun and as interesting as possible. For example, when treating a phobia of the dark the therapist may use glow sticks, play games of hide and seek and make shadow puppets. The therapist should frequently praise the child for participating in exposure activities and reinforce approach behaviour (Cowart & Ollendick, in press).

Behavioural experiments are completed throughout treatment. They typically proceed as follows: the clinician and/or child propose and discuss a possible exposure task, the clinician demonstrates the proposed task and the child attempts the demonstrated task (with the assistance of the clinician if required) (Davis & Ollendick, 2011; Davis *et al.*, 2009). The cognitions identified during the functional assessment are used to prompt the child as to what they think will happen during each part of the exposure task (e.g. Do you think the spider will bite you if you allow it to crawl on your hand?). Following the exposure, the clinician and child discuss what actually happened and whether the child's cognition came true (You held the spider in your hand and what happened? Did it bite you?).

Additionally, during the behavioural experiment, the clinician provides the child with psychoeducation about the phobic object or situation, highlighting positive information (e.g. spiders help control flies and other insect populations) and educating the child in how to successfully interact with the phobic object (e.g. how to catch a spider and release it outside; Cowart & Ollendick, in press). Exposure tasks should be repeated and if possible carried out across multiple contexts to assist in generalisation (e.g. interact with a dog in a therapy room, a back garden and an open unfenced park; Cowart & Ollendick, in press). The child and their family should be reminded to regularly schedule practice exposure tasks to continue to progress and prevent relapse.

To date the efficacy of OST has been supported by two large-scale randomised controlled trials (Ollendick *et al.*, 2009b; Öst *et al.*, 2001) and two smaller clinical trials (Flatt & King, 2010; Muris *et al.*, 1998). One session treatment has been found to be superior to a waitlist control (Flatt & King, 2010; Öst *et al.*, 2001) and an education support group (Ollendick *et al.*, 2009b). Hence, OST has strong empirical support for the treatment of child and adolescent specific phobia (see Farrell *et al.*, in press).

Case example 2

Lucy (not her real name), an 8-year-old girl, lived with her parents and 10-year-old sister. Her mother and father (both age 38) were primary school teachers. Lucy was referred for a phobia of costume characters. Based on her parents' report, Lucy's fear of costume characters significantly interfered with the lives of herself and her parents. The family reported that on a number of occasions they had to leave early from birthday parties, school functions and sporting events because of Lucy's fear. They indicated that Halloween was a particularly difficult time for Lucy and that for the previous 3 years she had refused to be involved. Lucy's parents stated that last year their neighbours had visited dressed in costume and that Lucy had locked herself in her room until she knew they had left. Recently at a local football game Lucy had unexpectedly seen the team mascot. She was reported to have clung to her parents using them as a shield to avoid the mascot and that she had also asked them to leave. Lucy's mother reported that she often had to 'check out' or screen certain places (e.g. parties or amusement parks) before Lucy would enter them. Her father indicated that they often had to reassure Lucy that they would protect her from costume characters if they were attending an event where there could be a character.

Assessment

Lucy and her parents were interviewed using the ADIS-IV-C/P (Silverman & Albano, 1996). Lucy's parents indicated that her fear of costume characters had started when she was approximately 3 years of age when at a friend's birthday party a clown had jumped out and scared her. They also reported that Lucy's elder sister had been afraid of costume characters before outgrowing this fear.

Based on Lucy's report and that of her parents during the diagnostic interview, Lucy was diagnosed with a specific phobia of costume characters with a CSR of 6, indicating a fear in the moderately severe range. Additionally, Lucy was diagnosed with generalised anxiety disorder (GAD) with a CSR of 4. During the initial assessment a BAT was administered during which Lucy was asked to enter a room (by herself), approach a costume character at the other end of the room and shake hands with it for 20 seconds. Lucy was able to open the door and enter the room however she did not approach the costume character. She rated her subjective anxiety to be at a 7 (on a scale ranging from 0–8).

A functional assessment was conducted to establish (1) the antecedents and consequences of Lucy's avoidant behaviour; (2) her faulty cognitions about costume characters; and (3) an avoidance hierarchy of her fear (a rating from 0 to 8 for different situations that might trigger her fear). Lucy reported that she was afraid costume characters would approach her and that she would feel scared and then this would trigger for her a number of distressing physiological symptoms (e.g. racing heart, sweaty, stomach pains and shaking). She indicated she found costume characters with covered faces particularly intimidating because she was unsure who was in the costume and because they could be a 'mean

person'. The therapist and Lucy constructed a hierarchy of characters with clowns and the Grim Reaper the most anxiety provoking; next were costumes with a covered face and holiday characters (e.g. Easter bunny and Santa); and the least anxiety provoking were open face characters. When asked if her fear prevented her from doing things she wanted to, Lucy stated that she was unable to attend friends' birthday parties, sporting events, particular restaurants and amusement parks. She also reported that her fear caused her considerable embarrassment when with friends as they all liked costume characters. She said she was afraid they would laugh at her and would not understand her fear.

Treatment

The single session followed the format of OST (3 hours of gradual exposure, modelling, reinforcement of approach behaviour and testing of faulty cognitions; see above). Initially the therapist provided Lucy with psychoeducation about costume characters and showed Lucy an empty 'Cat in the Hat' costume. Lucy held the costume and described it to the therapist and then they both dressed in the costume. Following this the therapist had an assistant enter the room dressed in the costume and Lucy practiced approaching him, asking him questions, allowing him to approach her and playing a game with him. The session progressed with the introduction of a 'Curious George' costume. At the end of the first hour Lucy was comfortably playing games (e.g. catching bubbles, throwing a ball) with both 'Cat in the Hat' and 'Curious George'. At the beginning of the second hour an Easter Bunny costume was introduced and then the session continued with looking and dressing up in clown costumes.

At the commencement of the third hour the therapist had Lucy enter a room in which a fully dressed clown was present. Shortly after, the clown painted Lucy's face while the therapist left the room. Following this the therapist entered the room with a surprise character, the Jester. Lucy began to cry and moved to the opposite side of the room to the character. She indicated that her fear level was an 8. She reported that the face was scary and that the character would jump out at her and frighten her. The therapist had Lucy describe the costume and then slowly approach it. The therapist assisted Lucy to test and disconfirm her cognition that the character would jump towards her. Subsequently, Lucy played a game with the Jester and asked him some questions. The therapist then left Lucy alone with the Jester for two minutes. This exposure task was repeated three times to ensure that Lucy sufficiently habituated to her anxiety. After the third time Lucy reported her fear level of the Jester had decreased to a 2. Following this Lucy spent the remainder of the session playing with all five costume characters. Lucy also dressed in a costume and the characters and Lucy paraded through the hallways of the clinic.

Throughout the OST session the therapist provided Lucy with copious amounts of praise for facing and coping with her fears. A playful, supportive and trusting relationship was developed. Lucy made considerable progress during the session. However, she and her parents were reminded that this was only the beginning of Lucy's treatment and for the treatment to work fully it would be important for them to continue exposure activities outside of therapy for several months.

Upon testing one week later Lucy's fear had reduced considerably from her pre-treatment levels as evidenced by a CSR rating of 3 (subclinical level) on the ADIS-IV-C/P. On a BAT (identical to the one used at pre-treatment) Lucy was able to stand an arm's length away from a costume character and shake its hand for 10 seconds. One month later Lucy was re-evaluated. Lucy's parents reported that they had practiced on a regular basis. They stated

that Lucy was now able to attend their local football game and shake the mascot's hand. They indicated that Lucy had been to a friend's birthday party where a clown had been present. Lucy's ADIS-IV-C/P rating for a specific phobia of costume characters was 1 (subclinical level) and for GAD it was 3. During the BAT at follow-up Lucy was able to enter the room and shake hands and talk with the costume character for more than 20 seconds.

Partial responders and treatment-refractory specific phobia

Whilst outcomes are generally favourable, unfortunately a significant proportion (20–50%) of children and adolescents do not respond adequately to CBT interventions for specific phobia (Ollendick *et al.*, 2009b; Öst *et al.*, 2001). There is limited information on factors associated with poor treatment response in phobic youth with only three studies to date (Ollendick *et al.*, 2009b; Öst *et al.*, 2001; Silverman *et al.*, 1999) examining predictors of treatment outcome (see Farrell *et al.*, in press). Collectively these studies show that the sociodemographics of the child (e.g. age, gender, socioeconomic status and ethnicity), severity of the diagnosis and type of phobia are not related to treatment success or failure, with success being defined as either no longer meeting criteria for a specific phobia on a diagnostic interview or showing a major reduction in severity on the clinician rating scale used for diagnostic purposes (drop of 4 or more points on the 8-point rating scale). However, findings are mixed with regard to comorbidity. Silverman *et al.* (1999) found that child and parent self-report of depression were associated with treatment failure using standard CBT procedures (Berman *et al.*, 2000). In contrast, in the two trials of intensive, one-session treatment that explored comorbidity (Ollendick *et al.*, 2009b; Öst *et al.*, 2001), child self-reported depression was not found to relate to treatment outcome for phobic youth. Unfortunately, measures of parent psychopathology were not collected in the Öst *et al.* (2001) study. However, Ollendick and colleagues are currently exploring parental psychopathology and family functioning variables and their relation to treatment success. Hence conclusions about factors related to poor treatment response are unable to be drawn at this time. In addition, the one-session treatment has resulted in reductions in comorbid anxiety disorders as well.

Ollendick *et al.* (2009a) have developed a four-stage treatment algorithm to guide treatment decisions for child and adolescent specific phobia, in an effort to assist clinicians in making appropriate treatment decisions for all children, from those who are treatment naïve through to those who are treatment refractory (Figure 17.1). Following an initial assessment, an evidence-based treatment (refer to the above treatment section) should be selected and implemented (e.g. CBT, OST). If the youth only partially responds to this initial treatment, then in stage two this treatment is supplemented. Supplementary strategies include additional assessment, increasing treatment frequency or intensity, treating comorbid conditions and/or addressing other impediments (e.g. treatment for a comorbid oppositional defiant disorder diagnosis followed by a second treatment session) (Davis & Ollendick, 2011). Stage three is reached when two attempts at delivering the initially selected evidence-based treatment have been unsuccessful. At this stage, a second evidence-based treatment (e.g. alternate psychosocial treatment and/or medication – for a review of pharmacological interventions for child anxiety disorders see Bloch & McGuire, 2011) should be selected and implemented. Following success at any stage, strategies to maintain and generalise treatment gains should also be instigated (Davis & Ollendick, 2011).

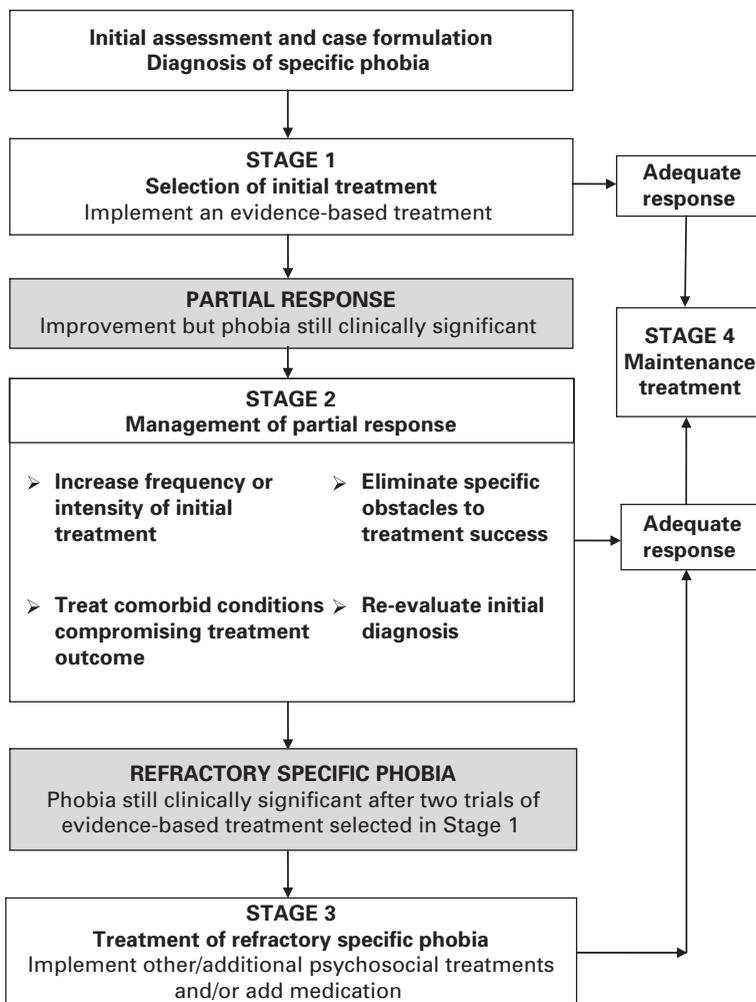


Figure 17.1 Treatment algorithm for children with specific phobia (adapted from Ollendick *et al.*, 2009a). Reproduced with permission.

Summary

Specific phobias are one of the most common psychological disorders causing significant interference and distress in the daily lives of children and adolescents. Phobic youth are at an increased risk of academic and social difficulties as well as adult psychopathology. Specific phobias have a multi-determined aetiology with several pathways thought to be involved in their development, including genetics, parenting, learning experiences, evolutionary preparedness and disgust. Due to the complex presentation of specific phobia (aetiology, phenomenology, comorbidity) a comprehensive assessment is necessary for the provision of effective treatment. Ideally, assessments should be multi-modal (diagnostic interview, questionnaires and BAT) and multi-informant (e.g. child, parent, teacher, clinician). Behavioural and cognitive-behavioural treatments have been shown to be the

most effective with specific phobia in children and adolescents. More recently, one session treatment (OST) was developed which incorporates cognitive behavioural procedures into an intensive (3-hour) treatment package (Öst, 1989). One session treatment offers a cost- and resource-effective way to alleviate children's fears and improve their quality of life. Whilst one of the most frequent forms of child anxiety disorder and typically debilitating in nature for both children and families, childhood phobias are often very responsive to our best psychosocial treatments. In cases where children do not fully respond to first-line treatments, guidelines now exist to inform clinicians in making treatment decisions. Efforts must now be made to ensure effective dissemination of evidence-based treatments, such as OST and other CBT-based procedures.

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Obsessive-compulsive disorder

Sarah Clark and Shirley Reynolds

Introduction

Obsessive-compulsive disorder (OCD) is characterised by the presence of either obsessions or compulsions, but commonly both (National Institute for Health and Clinical Excellence [NICE], 2005). Obsessions are defined as recurrent intrusive thoughts, images or urges which are distressing. Compulsions are repetitive behaviours or mental acts that an individual feels compelled or driven to perform in order to alleviate distress, or feel ‘just right’.

The diagnostic criteria for OCD in the *Diagnostic and Statistical Manual of Mental Disorders* (DSM-IV-TR; American Psychiatric Association, 2000) and the *ICD-10 Classification of Mental and Behavioural Disorders* (ICD-10; World Health Organization, 1992) state that there must be a presence of either obsessions or compulsions and that the individual must acknowledge the obsessional thoughts/images are a product of their mind and not imposed by an outside person or influence. At least one obsession or compulsion must be acknowledged as excessive or unreasonable and cause marked distress and/or interference.

Adults with OCD frequently report that they experienced their first symptoms in childhood (Rasmussen & Eisen, 1990) and population surveys have revealed a prevalence rate of between 1% and 3% in children and adolescents (Heyman *et al.*, 2001). There appears to be a bimodal age of onset of OCD, with one peak in adolescence and a second peak in young adulthood (Geller *et al.*, 1998). If left untreated, OCD can cause marked psychological distress in young people and disrupt social, educational and emotional development (Laidlaw *et al.*, 1999). Clinical trials suggest that CBT and drug treatment with SSRIs have similar effectiveness in the treatment of OCD in children and young people (e.g. Pediatric OCD Treatment Study Team, 2004). Currently psychological therapy is recommended as the first-line treatment for OCD in young people (NICE, 2005).

Symptoms of OCD in children and adolescents are generally similar to those reported in adults (March & Leonard, 1996). However, the child’s developmental stage affects the way such symptoms present and the way they are described by the individual. For example, children’s obsessional thoughts are more likely to be characterised by ‘magical’ or superstitious thinking. In addition, children also tend to be more orientated in the present than adults and therefore, they can be less motivated to engage in treatments involving difficult activities in order to achieve long-term positive changes in the future. Perhaps unsurprisingly given the sexual and moral development occurring during the teenage years,

adolescents are more likely to experience sexual and religious obsessions than children, and both children and adolescents with OCD are more likely to experience aggressive obsessions (Geller *et al.*, 2001).

When OCD presents in young people, family members are almost always involved. Parents and other family members typically provide the young person with reassurance, promote or tolerate avoidance of difficult situations and support or take part in the child's rituals. Family accommodation to OCD is associated with symptom severity and functional impairment (Calvocoressi *et al.*, 1995). Reassurance seeking is the most common type of accommodation and is highly prevalent across different subtypes of OCD in children and adolescents (Ivarsson & Valderhaug, 2006). However, it is also common for families to react to OCD symptoms with criticism and rejection. Frequently, one parent is more involved than the other and there can be differences in the way family members manage the young person's OCD symptoms (Bolton *et al.*, 1983). These factors often contribute to the maintenance of the young person's OCD symptoms, as well as being a source of family upset and discomfort.

Development of obsessive-compulsive disorder in young people

Genetic factors

A familial pattern of OCD and other anxiety can often be observed, suggesting a shared genetic vulnerability. Controlled family studies have suggested childhood-onset OCD to have more of a genetic contribution than adult-onset OCD, with rates of OCD in first-degree relatives ranging from 17–23% in child probands (Chabane *et al.*, 2005; do Rosario-Campos *et al.*, 2005) to 8.3% in adult probands (Hettema *et al.*, 2001). This research suggests OCD to have a strong familial influence, however environmental familial factors are also likely to play a role. A recent review of 70 years of twin research of OCD (van Grootheest *et al.*, 2005) found genetic influences in OCD to be in the range of 45–65%.

Adverse life events

Adverse life events may trigger the onset of OCD (Gothelf *et al.*, 2004). In teenage years, such events may include changes of school, bullying, parental separation/family conflicts, abuse or reactions to first sexual experiences and feelings.

Parenting styles

Different parenting styles are also likely to influence the development of OCD. Retrospective research with adults who have OCD has indicated that they are more likely to perceive either or both of their parents to be limited in their display of emotional warmth (Ehiobuche, 1988), overprotective (Merkel *et al.*, 1993) and orderly and demanding (Steketee *et al.*, 1987). Direct observation of parents of children with OCD suggests that they are less confident in their child's ability, less likely to use positive problem solving and show less promotion of their child's independence (Barrett *et al.*, 2002). They also report high levels of distress about their child's difficulties which is associated with OCD symptom severity and impairment in the child, as well as child internalising and externalising problems, family accommodation of symptoms and caregiver strain (Storch *et al.*, 2009).

Parental psychopathology

It is certainly not unusual for young people with OCD to be brought to services by parents who themselves display high levels of anxiety and psychopathology. There appears to be little difference between the parents of young people with OCD and those of young people with other anxiety disorders in terms of psychopathology, with parents of both groups displaying significantly more mental health difficulties compared with parents of normally developing adolescents (Derisley *et al.*, 2005). Parents of young people with OCD also report using significantly more cognitive and behavioural avoidance strategies than non-clinical parents (Derisley *et al.*, 2005), possibly promoting avoidance as a way of managing difficulties to their children and thus reinforcing the maintenance of OCD symptoms.

It is difficult to know whether parental factors contribute to the development of OCD in young people or whether they develop as a consequence of living with a young person with OCD traits. However, parental factors are likely to be involved in the maintenance of the young person's OCD and need to be considered within the individual case conceptualisation.

Family factors

Family members of young people with OCD frequently play a critical role in symptom presentation, typically through their over-involvement and accommodation of a child's rituals and avoidance (Storch *et al.*, 2007). Children and adolescents rely on guidance from their parents and family in most domains of life. They often spend large periods of time with other family members and caregivers and thus there is considerable opportunity for the behaviours of family members to maintain the young person's OCD.

Given the high likelihood that other family members may also have OCD symptoms, it is not unusual for parents to display their own compulsive and safety behaviours, which are modelled to the young person. There may also be beliefs held within the family which reinforce the young person's own beliefs, such as beliefs about the importance of cleanliness, religious beliefs or superstitions. Such familial beliefs and associated behaviours act to maintain the young person's OCD and make them more difficult to question and challenge.

Family members typically accommodate the young person's OCD symptoms by helping them with their rituals (e.g. following a certain routine before bedtime to minimise anxiety, or ensuring that the young person has access to the bathroom for extended periods to carry out bathing or washing routines), providing reassurance, repeatedly answering the child's repetitive questions, giving into a child's OCD demands, decreasing the level of independence held by the child, and allowing the child to avoid difficult situations. Family members often engage in such accommodative behaviour to reduce the length of time the child spends performing rituals and to reduce the child's high levels of distress. However, although well intentioned, such behaviours typically act to maintain the difficulties, because they tend to prevent the young person from updating or changing their beliefs and from learning that the intense anxiety/distress they experience will decrease if they do not carry out their rituals.

Family involvement in symptoms is also likely to contribute to impaired family relationships. There are often frequent conflicts centred round the young person's rituals and the extent to which these interfere with siblings' or parents' needs, parental distress arising from engaging in their child's rituals, and the impact of seeing their child's difficulties continue and the distress which they cause (Storch *et al.*, 2007). In some cases, parents and

family members may become so involved with the young person's OCD behaviours that they feel it is necessary to give up work and their own social activities, thus increasing the opportunity to accommodate the OCD, as well as increasing family conflicts, whilst decreasing levels of independence in the young person.

Given the likely involvement of parental and family factors in the development and maintenance of OCD in young people, it is important to consider these factors during assessment and when constructing individual case conceptualisations for young people. It is also likely to be essential for subsequent CBT interventions to focus on addressing these factors, possibly through involving parents in the young person's CBT sessions, as a decrease in family accommodation during treatment has been shown to predict treatment outcome, even when the severity of the child's OCD symptoms before treatment is controlled (Merlo *et al.*, 2009).

Comorbid difficulties

Obsessive-compulsive disorder rarely occurs in isolation and up to 80% of young people with OCD also meet diagnostic criteria for another mental health disorder (Ivarsson *et al.*, 2008). Other anxiety disorders are the most common comorbid difficulties to occur with OCD in young people and of these generalised anxiety disorder, social phobia and separation anxiety disorder co-exist most frequently (Langley *et al.*, 2010). Young people with OCD and another anxiety disorder report more severe OCD and higher family conflict than young people with OCD alone (Langley *et al.*, 2010). Major depressive disorder is also a common comorbid difficulty, affecting up to 45% of young people with OCD (Valleni-Basile, 1994). Young people with comorbid OCD and depression also report more severe OCD symptoms, more social problems and higher family conflicts than those with OCD alone. In addition to internalising difficulties, it is also common for young people to present with comorbid OCD and externalising difficulties such as attention deficit hyperactivity disorder (ADHD), oppositional defiant disorder (ODD), conduct disorder (CD) or tic disorders (Geller *et al.*, 1996; Langley *et al.*, 2010), with young people in this category reporting greater functional impairment than young people with OCD alone or with comorbid OCD and anxiety difficulties.

These comorbid difficulties do not tend to exist in parallel with the OCD; usually there is an interaction between the two. For example, a young person with comorbid social anxiety might be concerned about being seen as 'weird' because of their OCD, leading to an increase in anxiety which they try to reduce through engaging in compulsive behaviours. These behaviours then become more obvious to others, who may react in ways that the young person interprets as meaning they think she is 'weird' and thus both the social anxiety and OCD are maintained. Or a young person with comorbid panic disorder might fear that they are going to panic and die if they do not engage in the compulsive rituals, therefore they perform increasing numbers of OCD behaviours to try to control their symptoms of panic. The consequence of this is that they never get to update (and correct) their belief that physical symptoms of anxiety will cause them to panic and die. It might be that addressing the comorbid difficulties may result in a decrease in OCD symptoms or on the other hand tackling the OCD symptoms directly may reduce the comorbid difficulties. Therefore, it is essential that comorbid difficulties are assessed and considered within the case conceptualisation and the appropriate route for intervention is collaboratively identified with the young person.

Assessment

Establishing a diagnosis of OCD is perhaps the key component of the initial assessment. There are several clinician-administered diagnostic interviews. These include the Anxiety Disorders Interview Schedule for DSM-IV: Child and Parent Version (ADIS-C/P; Silverman & Albano, 1996), the Schedule for Affective Disorders and Schizophrenia for School-Age Children – Present and Lifetime Version (K-SADS-PL; Kaufman *et al.*, 1997) and the National Institute of Mental Health Diagnostic Interview Schedule for Children (NIMH-DISC; Shaffer *et al.*, 2000). Of these, the ADIS-C/P is considered the strongest measure for clinical and research assessments of young people with OCD. It involves interviewing the children and parents in relation to current symptoms and related levels of distress for the young person. It assesses for different anxiety disorders as well as externalising disorders and provides an assessment of which condition is most severe when different diagnoses co-occur (Lewin & Piacentini, 2010).

When assessing OCD symptom severity, the Children's Yale-Brown Obsessive Compulsive Scale (CY-BOCS; Scahill *et al.* 1997) is considered the gold standard measure. The CY-BOCS is a clinician-rated semi-structured interview of paediatric OCD symptoms and severity over the previous week. It assesses the presence of both current and past obsessive-compulsive symptoms and provides a rating of the frequency, interference and distress relating to obsessions and compulsions.

The assessment process should also include an assessment of psychosocial functioning, such as the Global Assessment Scale for Children (CGAS; Shaffer *et al.*, 1983). In addition, an assessment of family functioning and accommodation of OCD symptoms may also be useful. Such measures include the Family Environment Scale (FES; Moos & Moos, 1981) and the Family Accommodation Scale (FAS; Calvocoressi *et al.*, 1995). The FAS assesses the degree to which relatives accommodate the rituals of individuals with OCD. It has been successfully adapted as parent/self-report measures which are now commonly used in clinical and research settings (Lewin & Piacentini, 2010).

Cognitive behaviour therapy for obsessive-compulsive disorder

Cognitive behaviour therapy which includes exposure and response prevention (ERP) is recommended as the treatment of choice by the UK National Institute for Health and Clinical Excellence (NICE, 2005) and a recent meta-analysis (Reynolds *et al.*, 2012) concluded that cognitive behavioural treatment was effective for OCD in children and young people and was associated with very large effect sizes. The goal of treatment is wider than symptom reduction alone; 'The aim of psychological treatments for young people with OCD is to reduce symptoms, distress and interference in daily functioning. A positive outcome would also include improved social, educational and family functioning' (NICE, 2005).

Exposure and response prevention

Exposure and response prevention in the treatment of OCD is based on learning theory which suggests that OCD is maintained through avoidance of the feared situation and by neutralising any perceived danger. Avoidance is not always possible, in which case the individual then deals with their anxiety by carrying out a behaviour either to reduce the potential for harm (e.g. repeated washing or checking), or to 'neutralise' a frightening image

(e.g. counting to 100). These behaviours lead to an immediate reduction in anxiety and distress and therefore are likely to be repeated. Through repetition the behaviours become ritualised and take on a compulsive quality. The use of rituals to reduce anxiety and distress mean that the individual never has the opportunity to learn that their fears are less threatening than they believe and in fact the rituals appear to work well.

Exposure and response prevention involves the individual with OCD being exposed to the thing that they fear (e.g. germs, contamination) and not carrying out the neutralising behaviours which they would normally instigate. For example, someone with a contamination fear may be encouraged to eat a meal after washing their hands only once, rather than 20 times. Through repeated exposure to germs and potential contamination, and the repeated prevention of their usual rituals, the individual learns that on each occasion of contamination their fear does gradually reduce and that, over time, the intensity of their fear each time they fear contamination is also lessened.

Exposure and response prevention requires individuals with OCD to place themselves in a position of extreme fear and to experience and tolerate anxiety. It therefore requires high levels of motivation. Several trials have demonstrated that ERP is associated with significant symptom reduction and that around 80% of patients who are able to tolerate treatment report benefit. However, ERP is also associated with high rates of drop-out from therapy. Allsopp and Verduyn (1990) reported that 48% of young people dropped out of ERP treatment for OCD.

Cognitive behavioural models of obsessive compulsive disorder

Because of the aversive nature of ERP and the high rates of drop-out from treatment, cognitive behaviour therapy integrates cognitive models of OCD with the behavioural elements of ERP. Current cognitive models of OCD are based on the observation that intrusive and negative thoughts are common and frequent in people who do not have OCD (Rachman & de Silva, 1978) and are not necessarily associated with distress. Therefore, it is the individual's appraisal of their obsessional thoughts (i.e. their beliefs about the meaning and significance of their obsessional thoughts) and their subsequent response to such thoughts which contributes to the development and the maintenance of OCD. A number of appraisals have been identified including inflated responsibility (Salkovskis, 1999), thought-action fusion (TAF; Rachman, 1993) and meta-cognitive beliefs (Wells and Papageorgiou, 1998).

Salkovskis' model of obsessive-compulsive disorder (1999)

Salkovskis (1999) proposed that people with OCD interpret intrusive obsessive thoughts (e.g. 'If I don't kill all the germs here someone might get ill and die') as meaning that if they do not take action to avoid harm that they are responsible for harm coming to either themselves or others. Therefore the model proposes that people with OCD try to reduce or neutralise their intrusions (e.g. by repeated washing) and take steps to minimise the possibility of harm occurring. The rituals and safety behaviours appear to keep danger away and thus lead to a brief reduction in anxiety.

Rachman's model of obsessive-compulsive disorder (1993)

Rachman (1993) proposed that two types of TAF underlie OCD: (a) TAF-Morality, in which the belief that having an intrusive thought about an unacceptable behaviour is

morally equivalent to conducting that behaviour (e.g. thinking about murdering someone would be as bad as actually committing such an offence); and (b) TAF-Likelihood other, in which the belief that thinking about a bad situation will cause it to occur (e.g. thinking about a family member dying in a car crash will cause it to happen).

Wells and Papageorgiou's model of obsessive-compulsive disorder

The meta-cognitive beliefs model of OCD (Wells & Papageorgiou, 1998) proposed that obsessional thoughts are negatively interpreted because of the meta-cognitive beliefs about the meaning and/or dangerous consequences of having such thoughts. Two domains of belief have been identified: (a) beliefs about the importance, meaning or power of the thoughts; and (b) beliefs about the need to control thoughts and/or perform rituals.

Application of adult models with young people

The cognitive models of OCD have all been developed for adult populations. Studies with clinical and non-clinical samples of young people suggest that obsessive-compulsive symptoms are associated with inflated responsibility (Libby *et al.*, 2004; Matthews *et al.*, 2007), thought-action fusion (Evans *et al.*, 2002) and meta-cognitive beliefs (Mather & Cartwright-Hatton, 2004). In a systematic review Reynolds and Reeves (2008) concluded that cognitive models of OCD do apply to children and adolescents and there is evidence to support all three of the main cognitive models of OCD (increased responsibility, TAF and meta-cognition). However, these models do not specifically address issues which are highly salient for young people, such as the role of parents or significant others in the maintenance of OCD or wider systemic influences. Given that young people live in family systems, it seems important to consider how OCD might develop within such a system and what external factors influence the maintenance of OCD behaviours and cognitive appraisals. The cognitive models of OCD are also quite complicated and whilst acting as useful guides for clinicians, in practice more simple, collaboratively developed, case conceptualisations are likely to be more effective.

All of the models also hold the misinterpretation of cognitions as key to the maintenance of OCD. However, for children and young people it is often the emotion and physical sensations that they misinterpret as harmful, dangerous or intolerable and therefore, case conceptualisations need to consider the meaning young people attach to emotions/sensations.

The obsessive-compulsive disorder trap

Derisley *et al.* (2008) presented a formulation model of OCD called the 'OCD trap' (Figures 18.1 and 18.2). It is based on a simple cognitive-behavioural maintenance cycle but appears to be easily understood by children, young people and their parents and therefore has great clinical applicability for use with this client group. It provides a clear understanding of how obsessions and compulsions link together and maintain each other, thus providing an essential platform for developing collaborative intervention plans with young people.

The OCD trap can also be extended and embellished to accommodate cognitive appraisals and underlying beliefs, as well as comorbid difficulties and family factors. For example, with some young people it can be helpful to focus more on the 'meaning' of their obsessions and how it is this meaning that causes high levels of anxiety/distress and drives the

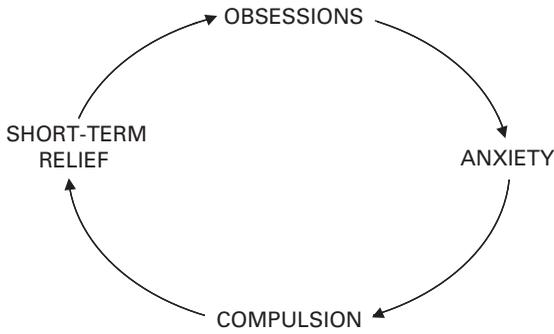


Figure 18.1 The obsessive-compulsive disorder (OCD) trap (Derisley *et al.*, 2008).

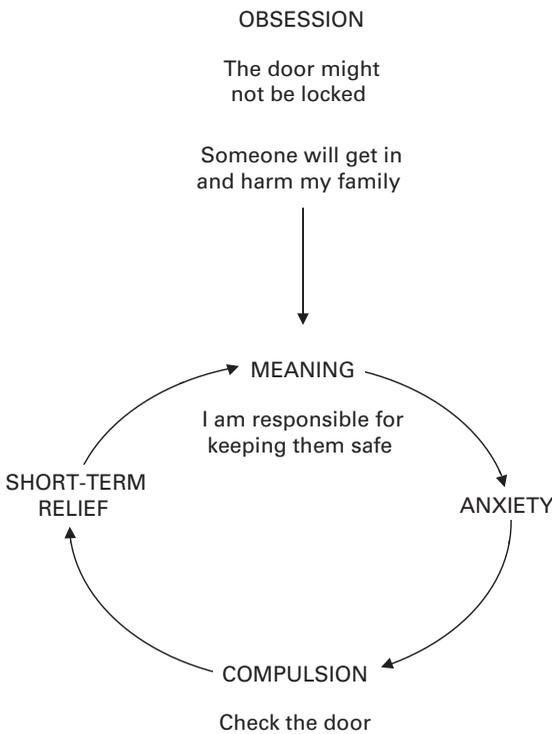


Figure 18.2 An example of the obsessive-compulsive disorder (OCD) trap including the ‘meaning’ of the obsession.

compulsive behaviours, rather than the obsessions themselves. Adding such information to the formulation is particularly important if it is deemed necessary to focus interventions on appraisals and beliefs during the mid to latter stages of therapy.

Although Derisley *et al.* (2008) highlight anxiety as the primary emotion within the OCD trap, often children and young people describe a sense of discomfort, irritation, frustration or anger rather than anxiety. It is often this sense of emotional discomfort that they describe as driving their compulsive behaviours and it can be difficult for them to articulate a particular

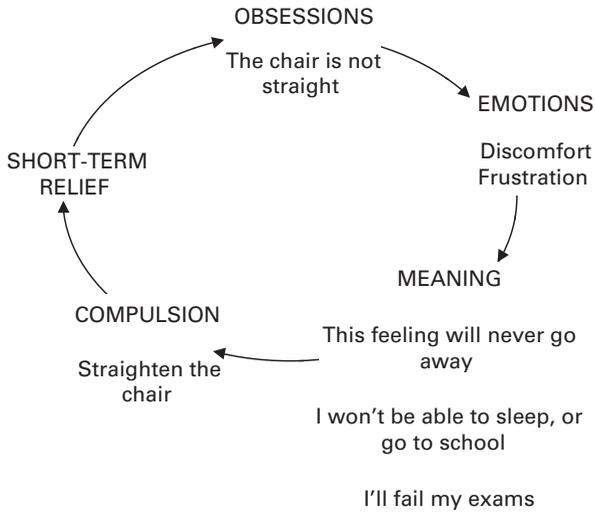


Figure 18.3 An example of the obsessive-compulsive disorder (OCD) trap including the 'meaning' of the emotion.

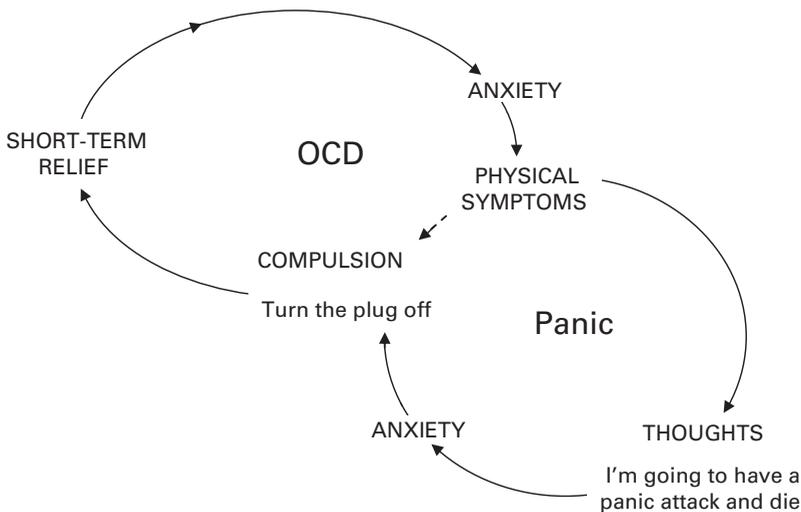


Figure 18.4 An example of a comorbid obsessive-compulsive disorder (OCD) trap.

obsessive thought or image that causes this emotion. Rather, they describe a fear that the emotion will have catastrophic consequences and it is therefore the meaning that they attach to the emotion that causes an increase in distress and drives the compulsive behaviours. The OCD trap can be adapted to accommodate this, as demonstrated in [Figure 18.3](#).

The OCD trap may also be adapted to accommodate comorbid difficulties and help young people and their families develop an understanding of the relationship between such difficulties and OCD ([Figure 18.4](#)).

Given the high degree of family accommodation that occurs in families of young people with OCD, it is important to consider such factors within the conceptualisation. The case example below illustrates how the OCD trap can include parental factors and drive appropriate interventions.

Case example 1: James

James, a 12-year-old boy (names and identifying details in the case examples have been changed to preserve anonymity), was referred to the Child and Adolescent Mental Health team in relation to excessive hand washing. He described obsessive thoughts that he would die in the night due to germs and had developed a number of compulsive behaviours including washing his hands up to 20 times a day and checking cutlery and crockery were perfectly clean. He had concerns that his mother would die in a car crash and repetitively asked her where she was going and what time she would be back. James was also avoiding many situations. He would not stay at friends' houses, go on school trips, participate in art, science or PE lessons or play outside, in case he should become contaminated with germs, get ill and die.

James' mother responded to his compulsive behaviours, either by shouting, which led to James feeling more worried and upset, or by reassuring him and telling him everything was 'OK'. Reassurance helped James to feel less worried but this was short-lived and James felt increasingly reliant upon reassurance. It, therefore, seemed important to construct a case conceptualisation with James and his mother in which his mother's responses to his OCD behaviours could be included and understood as maintaining factors. An example of an 'OCD trap' developed with James and his mother is shown in [Figure 18.5](#).

The CBT interventions used with James initially focused on his main goal of reducing his hand-washing behaviours. A series of behavioural experiments was constructed, whereby, he tested not washing his hands after playing basketball, before dinner, after art lessons and after picking up leaves in the garden. During the planning stage of each of these behavioural experiments, consideration was given to what James' mother could do to support each experiment. James recognised that he needed to test out not washing his hands whilst also not asking his mother if he would be 'OK'. If James did ask his mother such a question, it was decided that she would ask him what he thought or encourage him to look at the evidence for whether or not he was likely to be OK. James also designed some experiments whereby he sent his Mum on shopping trips to cities that he would normally be very anxious about her visiting and tested out only saying goodbye once and not asking repeatedly whether she would be 'OK'.

James made extremely good progress and following ten CBT sessions, his scores on the CY-BOCS fell from 32 to 2 (within the remission range). This was maintained at 6-month follow-up.

Although James worked extremely hard at testing out not washing his hands after certain activities, it is likely that had consideration not been given to how his mother could best support this work, that she would have continued to provide James with reassurance and thus inadvertently inhibited his exposure to anxiety and provided reinforcement for his reassurance seeking. It is likely that James would have become increasingly reliant on this reassurance and that his reassurance-seeking behaviours would have increased. His belief that he would get ill and die if he did not wash his hands is unlikely to have reduced as significantly if he had continued to seek reassurance from his mother.

In addition, by observing James conducting his own behavioural experiments, it is likely that any beliefs his mother may have held about him being 'vulnerable' or 'unable to cope

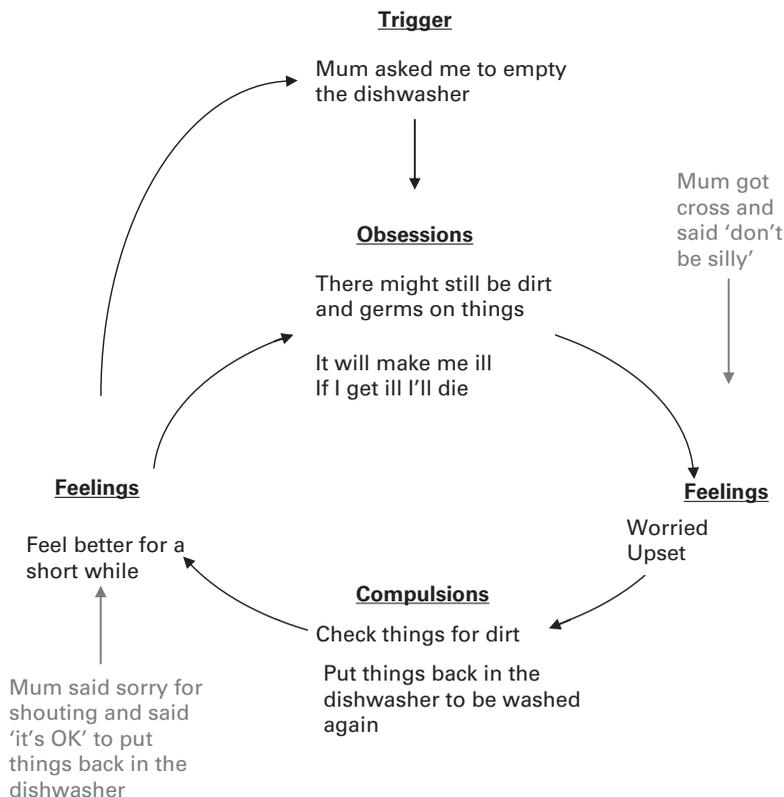


Figure 18.5 An obsessive-compulsive disorder (OCD) trap, developed with James and his mother.

on his own' also reduced, further decreasing the likelihood of her engaging in accommodative behaviours. This may not have been the case if she had continued to provide James with reassurance and allowed him to avoid difficult situations.

Challenges of working with young people with obsessive-compulsive disorder

Engagement and motivation

Formal research trials as well as clinical examples provide evidence of the effectiveness of using CBT with young people with OCD. However, this work can also be extremely challenging and at times frustrating. Whilst young people with OCD often report significant disruption to educational and social functioning, it is common for them to be able to manage OCD symptoms when at school or with friends but experience unmanageable OCD symptoms at home. Often obsessive-compulsive symptoms develop gradually and the young people are not always aware of the extent of these symptoms or the impact that they are having on other family members. Canavera *et al.* (2009) found relatively poor agreement between young people and their parents in reporting OCD symptoms, with parents typically reporting greater symptom severity in the young people than the young

people themselves. Thus, it is frequently the parents who seek support from services, as they become increasingly aware of the young person's symptoms and of the extent to which these impact on the child's social and educational functioning as well as on the well-being of other family members.

When the decision to seek a referral to mental health services has not been made collaboratively with the young person and when they do not believe the situation at home is problematic for them, they can be extremely difficult to engage and are often angry about being 'brought' to services. The nature of CBT for OCD requires that individuals are willing to do things which they find extremely distressing and which they have been spending much energy and time finding ways to avoid. In therapy, young people with OCD will be invited to discuss private and often shameful thoughts. They will be asked to engage in 'experiments' to test out what happens when they do not carry out their OCD behaviours and to test out what happens if their family members do not help them to accommodate the OCD. Therefore, motivation and engagement in therapy and the development of a collaborative therapeutic relationship with the young person is critically important. Psychoeducation about OCD can help to 'normalise' the young person's experience and demonstrate that they are not unique or bad to be experiencing such thoughts and feelings. Psychoeducation can also help them to understand that their intrusive thoughts are 'just' thoughts and this distancing can itself be helpful. It can also help highlight the ways in which OCD is kept going by reassurance and avoidance, and by others helping the young person with their rituals. Therapists can try to engage the young person in investigating how much time their OCD takes up by asking them to keep diaries. Psychoeducation may also help parents to understand OCD and how it is maintained and thus to reduce their accommodation. However, being honest that this might not be the right time for the young person to engage in CBT is also important.

On other occasions, however, young people keep their OCD symptoms extremely private and their parents are often unaware of the extent of the young person's distress. This is particularly relevant for older adolescents who are experiencing sexual or embarrassing obsessions, or obsessions which they feel deeply contradict the moral beliefs of the family. In these situations the therapist and young person must work collaboratively to decide whether therapy might best be conducted on an individual basis or whether it would be helpful to involve parents and develop their understanding of OCD and how they can best support the young person.

Using parents in therapy

It can often be difficult to know when to include or exclude parents from therapy. Some parents will be anxious to be involved in therapy, whilst others will have a limited understanding of the extent of the young person's difficulties, be faced with many competing demands, and may find it difficult to prioritise attending therapy sessions with their child.

Positive treatment outcomes have been reported when including family members in CBT interventions for adults with OCD, in terms of symptom reduction and family functioning (Grune *et al.*, 2001). However, only a handful of studies have investigated the effectiveness of including parents in CBT for young people with OCD and the role of the family in treatment is unclear – NICE recommend family involvement but acknowledge that this is based on clinical judgement and practice and not on research evidence.

Knox *et al.* (1996) found that ERP with parental involvement led to a greater decrease in compulsions and rituals in 8–13-year-olds than ERP delivered to the child alone. They suggested that this may have occurred because involving the parents allowed them to disengage from their child's compulsive rituals, and secondly because by introducing positive reinforcement from the parents, this may have increased the child's motivation and compliance with response prevention tasks.

Barrett *et al.* (2005) administered family-involved CBT on an individual family basis and also to groups of families for young people aged 8 to 19 years. Young people in both treatment conditions showed significant improvements in OCD symptoms, with 70% of those treated with individual family-involved CBT and 84% of those treated with family-involved group CBT remaining diagnosis free at 12-month follow-up and at 7-year follow-up (O'Leary *et al.*, 2009). Pre-treatment symptom severity and higher family dysfunction predicted poorer long-term outcomes. Barrett *et al.* (2005) concluded that family-involved CBT for OCD provides long-term relief and was equally effective in either a group or individual family basis.

Although limited, this research indicates that involving parents in the treatment of young people with OCD can lead to positive outcomes, particularly in terms of individual and family functioning. Family involvement in therapy provides the opportunity for therapists to support parents in reducing their accommodation and involvement in OCD rituals and to reduce their reassurance to the child as well as to address their own concerns about tolerating their child's distress.

Currently no research has directly compared the effectiveness of individual versus family-involved CBT for young people with OCD. There are situations when involving parents in treatment may not be helpful to young people with OCD and times when it is unacceptable to the young person for their parents to be involved in their therapy. For example, older teenagers may find the involvement of their parents in therapy sessions to be undermining of their own wish for autonomy. The nature of the intrusions reported by the young person can be extremely difficult for them to share with their parents (e.g. sexual or religious intrusions). Therapists may also find maintaining alliances with the young person and their parent(s) to be challenging.

Our view is that the formulation developed with the young person should include family and parent factors. In this way parents and other family members will be involved in treatment either directly or indirectly. Therapists may need to be flexible in involving parents in CBT for their child. This will involve being sensitive to the needs and wishes of both the young person and their parent(s), able to respect the confidence of the young person, negotiate family 'rules' and a willingness to communicate directly with parents when they are not in the therapy room. Families who are not present in therapy sessions can still be given psychoeducation about OCD and can be supported to limit their accommodating behaviours.

Future directions

Cognitive behaviour therapy has become established as the first-line treatment for OCD in children and young people. Treatment models and methods which were developed for use with adults have been successfully adapted for use with children and young people. Despite this there is still much which is not well understood. There are fundamental questions around vulnerability to OCD and environmental and developmental factors which exacerbate children's vulnerability or are protective. For example, why do some children and

young people begin to interpret their negative intrusive thoughts as potentially dangerous and why do others simply ignore or dismiss them? If inflated responsibility is associated with increased risk of OCD, how and under what conditions does it develop? Given that many children experience 'magical thinking', why do a minority of children not grow out of this? How does the emergence of autonomy and individuality in adolescence interact with OCD? Through clinical work we frequently observe a relationship between the development of OCD and a fear of developing independence from parents, or 'growing up' that warrants further investigation.

Other questions relate more to treatment delivery and organisation. Effective treatments are only useful to those who are able to receive them. Currently the availability of trained cognitive behavioural therapists who are experienced in working with young people and their families limits the availability of effective treatment. New ways of delivering CBT to young people are promising. For example, CBT has been successfully delivered by telephone (Turner *et al.*, 2009) and in groups (Anderson & Rees, 2007; Thienemann *et al.*, 2009). Online treatment may be possible and new technologies have been exploited to treat other anxiety disorders (see Chapter 23, this volume). Young people may be especially well suited to indirect delivery of CBT via the electronic media including the internet and text messaging and these methods may help overcome significant problems with availability of CBT therapists and the accessibility of clinics.

Despite the apparent success of CBT for OCD a significant number of young people do not respond to treatment. This subgroup are likely to have developed OCD at a younger age, have significantly impaired functioning and more severe symptoms, and report comorbid problems such as depression or conduct problems. We have little understanding about their long-term prognosis but given that the majority of adults with OCD report that the onset was before they were 18 years old, it seems likely that their OCD will become chronic. Developing new theoretical models and associated treatments for this group should be a clinical and research priority.

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Depressive disorders

Shirley Reynolds and Sarah Clark

Depressive Disorders

Depression is a common and potentially serious, even life-threatening, disorder. At any time, around 3% of adolescents will experience a period of depression which would meet the criteria for diagnosis (Costello *et al.*, 2005). Depression occurs at a rate of about 1.5% in pre-adolescent children but rises in adolescence (Angold & Costello, 2001). Depression can have a long term and devastating impact on the life of a young person and their family. For example, young people who have had an episode of depression are more likely to develop other mental health disorders and to have repeated episodes of depression, they do less well at school, are more likely to take illegal substances, become pregnant whilst still a teenager, experience domestic violence, are more likely to self-harm and attempt suicide, to commit suicide and to develop a range of physical health problems (Tharpar *et al.*, 2012).

Depression is also more common in people who are economically and socially disadvantaged and amongst those who have experienced adversity. Other risk factors for depression include a family history of depression, recent interpersonal stressors, lack of social support and family conflict (Lewinsohn *et al.*, 1999). Girls are more at risk of depression than boys, and boys and girls have somewhat different risk factors (Hyde *et al.*, 2008).

Assessing depression in young people

Depression in young people looks very much like depression in adults. The core symptoms of depression as currently defined by the ICD-10 (World Health Organization, 1992), are depressed or irritable mood and decreased interest or pleasure. These symptoms must be experienced consistently for at least 2 weeks and interfere with normal functioning. In addition the young person must report at least four of the following symptoms; fatigue or loss of energy; loss of confidence or self-esteem; unreasonable self-blame or excessive guilt; decreased concentration or ability to think; indecisiveness or vacillation; psychomotor agitation or retardation (subjective or objectively); insomnia or hypersomnia; marked appetite change with significant weight loss or gain, or failure to gain expected weight; recurrent thoughts of death, recurrent suicidal ideation or suicidal behaviour; marked loss of libido.

Because depression is so common in young people, is so varied in its presentation, is recurrent, and is so often comorbid with other mental health disorders it should be routine practice in child and adolescent mental health services to assess all new referrals specifically

for depression. We recommend that all clinicians who are involved in intake assessments in child and adolescent mental health services are trained in diagnostic interviewing and screening for depression. Specific diagnostic assessments should supplement generic assessments. At intake assessment interviews, all young people should be explicitly asked about the key symptoms of low mood, irritability and decreased interest and pleasure and this should be repeated at regular intervals throughout their engagement with mental health services. The possibility of suicidal ideas should always be borne in mind in young people with depressive disorders. Clinicians need to be skilled in eliciting such thoughts and feelings. Referral for a psychiatric opinion is indicated in situations where it is thought there is a significant suicidal risk.

In addition to structured clinical interviews there are a number of well-established self-report instruments which can be used to monitor symptoms of depression in young people. The Mood and Feelings Questionnaire (Daviss *et al.*, 2006) is widely used in research and has good norms and established psychometric properties. The Strengths and Difficulties Questionnaire (Goodman, 1997) is widely used in the UK and includes some items which would pick up depressive symptoms but is probably not sufficiently sensitive or specific to identify depressive disorders.

The cognitive behavioural model of depression

Cognitive behaviour therapy for depression incorporates behavioural theories of depression with the cognitive model of depression, as developed by Beck *et al.* (1979). The cognitive model of depression explains why depression develops and how it is maintained over time. Beck *et al.* (1979) suggested that depression is triggered by adverse life events (e.g. loss or failure) in individuals who have developed a specific cognitive vulnerability to these events through early experiences. Depression is then maintained through cognitive and behavioural factors, which typically are the focus of therapy.

Behavioural aspects of depression

Young people who are depressed frequently report that they are doing very little. For example Sophie, who is 15 years old, has been experiencing problems at school. She says she has been bullied by some of the other girls and has felt criticised by her teachers after not doing very well in her exams. She feels very low and down (*mood*) and has stopped going into school and going out with her friends, spending much of her time alone in her room (*behaviour*). In addition, she feels physically unwell – tired and run down, lethargic, with frequent headaches (*bodily reactions*). Her main *thoughts* have been about being a failure and no-one liking her. Because Sophie is not going out with her friends, or going to school, and is spending a lot of time on her own she is not getting many opportunities to do enjoyable things. This means that she gets much less ‘positive reinforcement’ than she did previously. She is spending a lot of time alone in her bedroom.

Sophie’s friends are still at school so she doesn’t have any social life during the day and when she sees her friends at the weekend she has less and less to talk to them about. Sophie’s mother is really fed up with her. She has not been able to get her to go to school and when she tries to persuade her Sophie is either sullen and uncommunicative or rude and verbally aggressive. Sophie should be getting ready to sit her exams. But she hasn’t done any revision or attended school for 4 months; she can’t see that there is any point.

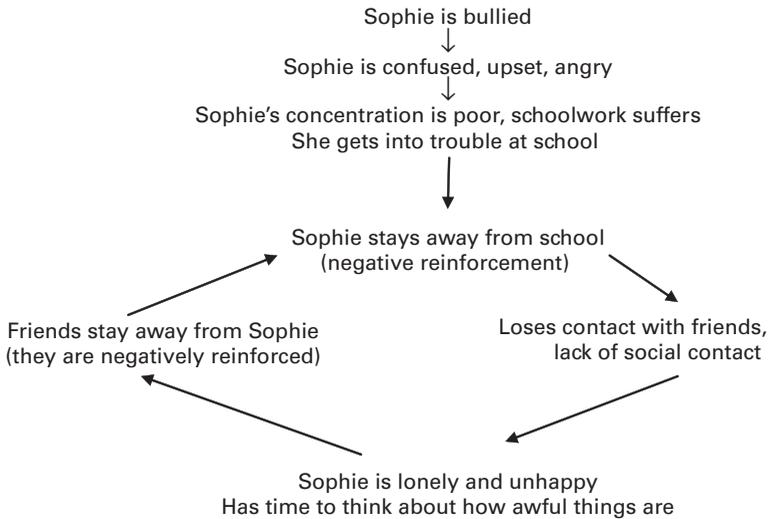


Figure 19.1 Sophie's vicious cycle.

Sophie is in the middle of a vicious cycle – she does less and less and gets increasingly less fun and ‘positive reinforcement’ (Figure 19.1). She used to do lots of things she enjoyed; hanging about with her friends, going shopping and to dancing lessons, and spending time with her family. She got on well with her teachers and parents. Now Sophie’s family and friends don’t enjoy spending time with her and, although they haven’t planned this, they tend to avoid her because she’s no fun to be around. Sophie doesn’t have any contact with her teachers or friends. She also doesn’t enjoy things like she used to – she spends hours on the computer and listening to music but she’s getting more and more bored and finding it harder and harder to find things she wants to do.

Cognitive processes in depression

A range of cognitive processes is thought to maintain depression. For example, people who are depressed tend to remember the bad things that have happened to them rather than the good things that have happened; they pay attention to negative events rather than positive events in their environment; they make more negative judgements and predictions about the future and they interpret the world and new information in more negative ways.

Because she is depressed and is doing very little, Sophie has a lot more time to think about things. So her lack of activity, i.e. her behaviour, gives her more thinking time.

Thoughts about herself: Sophie thinks that the fact her friends have stopped texting and emailing her means that they don’t like her any more. This makes her think that the bullies might be right – that she is ‘rubbish’ and that she doesn’t have any ‘real’ friends. This makes her feel lonely and isolated and very sad. She can’t see how she can ever go back to school if she has no friends there. This turns into long periods of being self-critical, analysing herself and her actions, thinking about nasty things that other girls have said to her, or that her parents have said. This is often referred to as ‘rumination’.

Thoughts about the future: Sophie also thinks about her future; she can’t see a way of going back to school, ever. She is falling behind with her lessons and with her course work.

She predicts that she will fail her exams because she has missed so much school. She predicts that the worst will happen and her negative expectations about the future are another reason for her to feel sad and depressed. Sophie can't see any point in going back to school at all.

Thoughts about the world: Because Sophie has had a bad time with bullies at school she now thinks that she will come across bullies in other places and situations. She's worried about being bullied in new social situations. Sophie is at home a lot and listening to the news on the radio and TV and on the internet. She can't stop noticing what an awful place the world is – we seem to be destroying the planet and other people.

Sophie is making a lot of 'cognitive errors'. Sophie is seeing the world in *black and white*, 'all or nothing' terms. She concludes that, because her friends have not texted her much recently, they don't care about her. She is also making *arbitrary inferences*; Sophie can see lots of 'proof' that she doesn't have any friends and that no one likes her. Also Sophie can 'see' that she's a failure as she can't go back to school and 'therefore' won't be able to go to college.

Negative automatic thoughts

Beck suggested that negative automatic thoughts (NATS) are characteristic of people who are depressed. Sophie has a lot of NATS about herself, the world and the future. These include:

- I'm rubbish.
- Everyone hates me.
- I'll never be able to pass my exams now.
- I won't be able to go to college.
- I'm a failure.
- I'll never get a decent job.

Sophie is not necessarily aware of these thoughts when they occur and they pop up spontaneously; thus they are 'automatic'. Because of their negative content, which depressed people usually assume to be correct, NATs keep mood low and provide further material for self-depreciation and rumination. Automatic thoughts are often verbal in format but they can also include visual images. Because NATs are so central to low mood they are a specific target in CBT.

(Dysfunctional) assumptions

The CBT model hypothesises that NATs are generated by more general *assumptions*, or *rules for living*, which individuals have developed. Assumptions are generated through the individual's early experiences, culture, family history and life events. Assumptions are learned through experiences and are often implicit 'rules' that provide a basis for our motives and behaviours. Assumptions may be widely shared within a culture, for example, 'It is important for me to succeed'. Family norms and values also shape assumptions. Parents can give negative messages to their children about the world, the future and themselves (e.g. 'You're just like your Dad'). Parents can model different ways to deal with adversity and stress and they reinforce different behaviours. This means that children who have parents who are depressed are exposed to negative thoughts and beliefs on a regular basis. Growing up in a chaotic family, with low levels of parental supervision and chronic external stressors, might contribute to the assumption that the world is harsh and unfair, and that to survive

it is important to be self-sufficient and independent. Or, growing up with an infirm parent or sibling might lead to beliefs that the individual is most valued and ‘needed’ if they take a nurturing role and subsume their own needs to those of other family members.

Sophie’s experience is of growing up in a family where relationships with the extended family are problematic and where conflict between members of the extended family is frequent. Sophie’s mother has no contact with her sister following a family argument over 10 years ago. Sophie never sees her maternal aunt or her cousins on that side of the family. Sophie’s experience from her own family is that conflict and disagreements lead to the end of important relationships.

Critical events

Assumptions can become problematic especially if they are inflexible and the environment changes. The point at which an environment changes or is perceived to change is often a ‘critical event’ in the development of depression. Since being bullied and then missing school Sophie has lost the regular contact she had with her friends, has had very negative interpersonal contact (with the bullies) and can find a lot of reasons to believe that she has lost her friends, is not popular and is disliked. For Sophie, becoming bullied and then becoming socially isolated were critical events which challenged her assumptions and triggered a range of NATs. This tipped her into the vicious cycle of behavioural avoidance, further isolation, low mood, rumination and further NATs.

Cognitive-behavioural interventions for depression

Characteristics of CBT for depression

Good cognitive behavioural therapy for depression involves a skilful integration of interpersonal and relationship building skills with technical skills and knowledge.

The collaborative relationship

All psychological therapists work against the background of the ‘therapeutic relationship’ or ‘therapeutic alliance’ with their client. The therapeutic relationship is generally accepted to have two important features; the emotional bond and the task element (Bordin, 1979). In CBT, this relationship is an essential part of the therapeutic work and allows the development of active collaboration between the therapist and young person. The emotional bond between the therapist and client provides a safe context in which the young person can share private and self-exposing information, and in which they can take risks and try out new ways of behaving and thinking. Psychological therapists must convey warmth, genuineness and empathy to their clients so that an atmosphere of trust and acceptance is developed.

In CBT the ‘task’ element of the therapeutic alliance refers to agreement between the therapist and young person on the overall goals of therapy and on any specific targets, a shared understanding of the young person’s current situation and the features of their background that are significant, and agreement about the way in which they will move towards the goals. There are a number of specific ways of working in CBT that promote collaboration between the therapist and young person.

- Identify *their* goals, i.e. what it is that they most want to change.
- Help the young person understand the basic CBT model.

- Develop a shared understanding of the young person's situation and concerns through the development of a formulation.
- Set an agenda at the beginning of every session to which both the therapist and young person contribute.
- Conduct specific exercises, or tasks, within the session, which will inform the young person's choice of homework task.
- Session structure e.g. the number of sessions, the end of therapy, progress toward goals and planning for the end of therapy are all explicit and discussed openly in therapy.

Collaborative empiricism

The relationship in CBT provides the context in which therapist and client can develop an approach known as 'collaborative empiricism'. This is a style of working where the aim is to take a questioning approach to the client's beliefs and assumptions, to try out alternatives, to collect information, and to evaluate the 'evidence' that supports or refutes beliefs and assumptions. For example, depressed young people can often only remember negative or neutral experiences and emotions. This can be because their experiences are predominantly negative or neutral. It can also be exaggerated because a side-effect of depression is that memory becomes poor for specific positive events. Thus, people who are depressed find it hard to remember good things which have happened in their lives.

Depression is also linked with other negative biases. Young people who are depressed are likely to underestimate their successes, attribute good things to luck or to other people rather than to themselves, interpret neutral events as negative, and predict that things will be difficult rather than easy. In CBT, collecting evidence day-to-day, through diaries and other kinds of records, can provide a more neutral source of information and help overcome negative biases. In CBT the aim of collaborative empiricism is not to 'prove' that beliefs or behaviours are good or bad, or right or wrong, but to use exercise and experiments to open up the possibility that other ways of thinking, other beliefs and assumptions, and alternative behaviours might also be valid. This is often in direct contrast to how people think and behave when they are depressed and can provide a way of beginning to address low mood.

Elements of cognitive behaviour therapy for depression

Psychoeducation

Psychoeducation is usually the first step in developing collaboration between the therapist and young person. The aim is to help the young person understand the CBT model and to see how it can be used to help them. Therapists clearly explain the relationship between thoughts, feelings and behaviours. They may also give the young person written information about CBT, direct them to websites and online materials, and use exercises to help highlight different kinds of emotions and the differences between thoughts and emotions. Using books and websites needs care but if chosen carefully sends a clear message that being depressed is not unusual and that other young people report similar low mood and feelings of hopelessness.

The formulation in CBT

Psychoeducation is brought to life in the *formulation*. The formulation is an essential part of CBT and is developed with the young person. It provides a way to link the young person's

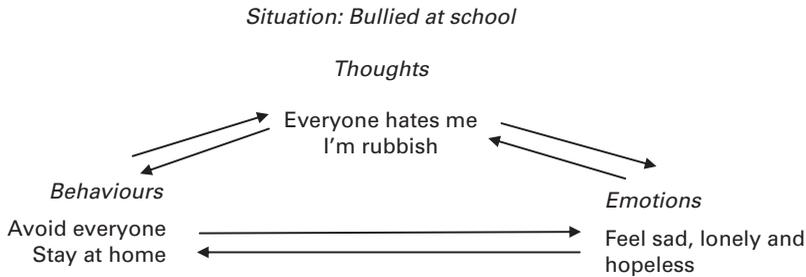


Figure 19.2 Simplified relationship between Sophie's thoughts, feelings and behaviours.

own story to the CBT model. The formulation should capture the key features of the young person's situation and experiences and provide a rationale for how to proceed in therapy. Formulations are always provisional – they represent a set of hypotheses or ideas about how problems developed and are maintained. It is important not to imply that the formulation is 'correct' or final.

Sophie reports a range of different symptoms and problems associated with depression. A formulation to show how her behaviours, feelings and thoughts link together can help make sense of these experiences. In a CBT formulation it might be suggested that Sophie is altering her own environment in ways that maintain her low mood; for example, avoiding her friends means that she has little social support. She also has no opportunity to see if her friends do actually like her, so she does not find out if her beliefs about not being liked are correct or not. Because Sophie is not attending school she is falling further and further behind with her work. This then makes it even harder to return to school and perpetuates her avoidance. The longer this goes on the harder it becomes to return.

Setting this sequence out in a formulation can help Sophie recognise the vicious cycle she is in (see Figure 19.2). Drawing up a formulation with the therapist can help young people feel heard and understood. It can also help them understand their own situation and even show them ways of turning things around. In addition the formulation helps the therapist and young person to decide how to proceed in therapy.

Increasing activity and pleasure

Often a useful first step is to try to increase the young person's level of activity. Young people who are depressed are usually unmotivated, apathetic and feel hopeless. An early aim of therapy is to convey the message that things can change. Because low levels of activity help to maintain depressed mood the aim of *behavioural activation* is to increase or re-introduce pleasurable and rewarding activities. For Sophie this would mean getting her back to doing things she enjoys, widening her range of activities, providing a structure to each day and potentially giving her back a sense of achievement and purpose.

Another important early step in therapy is to assess collaboratively exactly what the young person does every day. This is usually started in a session and carried on between sessions in the form of a diary. This is known as '*activity monitoring*'. Young people are asked to record what they do every day for a week, usually hour by hour. As well as recording their activities they also record their mood. People who are depressed tend to remember only things that are negative; keeping a diary can help show that even in a bad week, there are sometimes small

but pleasurable events. After recording baseline levels of activity the therapist and client agree on small, simple tasks to be completed between sessions (*activity scheduling*), for example walking to the local shops, listening to a favourite piece of music, taking the dog for a walk, or contacting a friend. Gradually the level, complexity and challenge of the weekly goals are increased.

Doing more things can often increase feelings of pleasure and achievement through increasing positive reinforcement. However, it is also useful to build in explicit rewards for specific activities or acts. Rewards can be tangible (e.g. an ice cream) or intangible (e.g. praise) and can be self-generated or be given by others (for example parents, teachers, friends, colleagues). Using tangible rewards can help initial motivation; however, it is crucial to use age-appropriate rewards and to involve the young person in setting these up. They need to agree to the use of rewards and to the involvement of others, especially their parents.

Using activity scheduling diaries

Asking young people to keep a record between sessions is often challenging, partly because young people who are depressed often have very low levels of confidence and feel that they are 'stupid' or 'thick', or that they will 'mess it up'. Their motivation is often low and their lives are frequently chaotic. Therapists need to be creative and the almost universal ownership of mobile phones and computers means that there are more varied ways of recording and monitoring behaviours and moods. For example, mobile phones can be programmed to prompt the young person to record their behaviours at different times during the days over a week or more. Therapists can send automated text messages to their young clients to remind them to carry out tasks and exercises between sessions.

Monitoring moods and feelings

The use of activity scheduling can be extended to include moods and feelings. Extending the diary in this way can help show the relationship between behaviours and moods and also tend to show that moods change over time. Many young people are not used to observing how they feel or identifying what they think or when they think it, and have no experience of discussing their thoughts and feelings with other people, especially adults. They may not have specific words to describe their feelings and may not have noticed that being frightened and being angry are different. Boredom is often a synonym for low mood. Verbal ability is highly associated with understanding the CBT model. Therefore many young people will need considerable help with beginning to recognise, name and monitor their moods and feelings.

Low mood is nearly always something the young person will report and want to change. Using early sessions to help the young person explain and develop their emotional vocabulary can be very helpful and current news stories about celebrities, soap opera storylines and current films and TV shows can all help provide engaging materials. For young people who are depressed their own low motivation and hopelessness can be an extra barrier. Effective CBT with young people involves creative adaptations; using cartoons, comic books, puppets, imagery and examples from soap operas or celebrity magazines can all help bring the topic alive. Many adults and young people find it hard to distinguish between thoughts and feelings and using simple pictures and cartoons with thoughts bubbles can help with this.

As well as naming and identifying moods and feelings, a key part of CBT involves rating their intensity. Some young people will take immediately to the use of a rating scale (e.g. On

a scale of 1 to 10 how angry were you?). Other young people find the use of visual scales, using the metaphor of thermometers, more easy to understand.

Identifying and challenging negative automatic thoughts

Identifying NATs follows on from monitoring and observing feelings. Part of the rationale for recording and ‘catching’ automatic thoughts is that this helps reduce the extent to which they are ‘automatic’ and gives the young person more control over them.

Challenging NATs is often seen as the cornerstone of CBT. This is where the basic ethos of ‘collaborative empiricism’ is most clearly demonstrated, as the way of challenging NATs in CBT is to look for evidence to support and to challenge them. Within sessions the therapist and client will review the client’s thought records and examine their validity. The aim is not to ‘prove’ that NATs are wrong, incorrect, false or bad, but to open up the possibility that thoughts can be mistaken and can be changed. Thus it is important for the therapist to adopt an open-minded stance and to accept that evidence for and against NATs can and probably will be found. Behavioural experiments are an important method of testing negative automatic thoughts. For example, Sophie’s automatic thought that ‘everyone hates me’ can be tested out through discussion and thought experiments, but also by setting up specific tasks to check out her belief. This might involve sending one or more of her friends a friendly text message or posting a message on a social networking site (e.g. Facebook).

Behavioural experiments

Behavioural experiments are set up by the client and the therapist with the deliberate aim of ‘testing’ out a ‘belief’ or checking the ‘proof’ that a client offers. They are an important tool in breaking existing vicious cycles. The purpose of the behavioural experiment is to collect information. For example, Sophie thinks that her friends don’t really like her because they have stopped texting her. The therapist might think that Sophie’s friends have stopped texting her because Sophie hasn’t texted them back for weeks and weeks.

In CBT it can be helpful to identify thoughts as ‘hypotheses’. Some young people may quickly catch onto the scientific metaphor whereas others may need a little more explanation. The key idea is that a belief is no more than a belief and is not necessarily true. Beliefs can be tested out using behavioural experiments. If Sophie sends a text to one of her friends, will she get a reply? If she does what does that mean? If she doesn’t what does that mean? It could mean that Sophie is right and that her friend is not really her friend; it could also mean that Sophie’s friend has lost her phone, has no credit left, has run out of battery or is busy at the moment. The point of the behavioural experiment is not to ‘prove’ that Sophie is right or wrong, but to use the experiment to generate different ideas and ways of interpreting the world.

Longitudinal formulations

Formulations are also useful to help therapists and young people think about how their past experiences are relevant to their feelings and experiences now. The longitudinal formulation is more complex and demanding but can put people’s own histories into a context which is helpful and containing. The longitudinal formulation typically links the young person’s current thoughts, feelings, and behaviours to underlying assumptions,

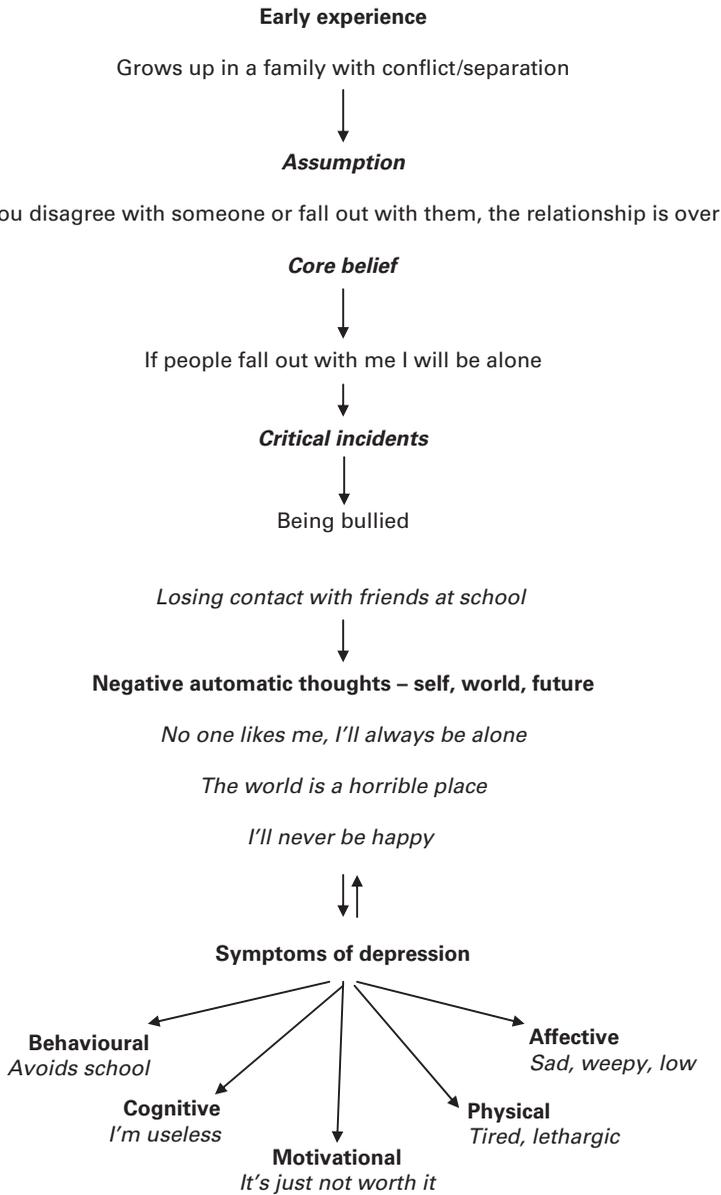


Figure 19.3 Longitudinal formulation for Sophie.

beliefs and early experiences. For example, for Sophie this might look like that shown in Figure 19.3.

Identifying and working with assumptions

The longitudinal formulation includes assumptions and core beliefs. In young people core beliefs and assumptions are perhaps more likely still to be fluid than in later life and the experience of therapy can contribute to the further development of a young person's core beliefs.

Cognitive restructuring

Cognitive restructuring is not an essential component of CBT for depression. For many young people, a strong therapeutic relationship, behavioural activation, enhanced emotional recognition and the ability to challenge automatic negative thinking either by assessing evidence or by behavioural experiments may result in sufficient improvement. However, some young people are inhibited by strongly held and often implicit beliefs about themselves (I'm worthless, I'm unlovable). Here cognitive restructuring may be helpful.

Cognitive restructuring shares many of the techniques already described but focuses more on dysfunctional assumptions (if . . . then . . . statements) and core beliefs about the self, others and the world. In cognitive restructuring the aim is to reduce the impact of highly dysfunctional assumptions (e.g. If I can't do this properly it proves that I'm useless) and core beliefs (e.g. I am a horrible person; I am unlovable) on the young person's self-concept and to allow other processes of change to move forward. The approach involves enabling young people to begin to recognise and articulate their assumptions and beliefs and then to begin to explore the validity of these beliefs through a process of Socratic questioning.

Socratic questioning starts from the position that the assumptions and beliefs held by the client are there for good reason. For example, Sophie may have learned from her family and friends the assumption that, 'In order to be happy I must be popular'. Here the task of the therapist is to understand how such beliefs are supported by the young person's experience and current situation and to help the young person to consider if other, different beliefs and assumptions are plausible. For example, Sophie may recognise that her mother's relationship with her sister ended after a family disagreement. She may recall other family conflicts which have not been resolved as well as disagreement between peers at school. These events may help explain why Sophie has developed specific assumptions about her relationships with other people.

In Socratic questioning the therapist presents opportunities for alternative reasons through using tentative language with the young person, e.g. 'I wonder if . . .', 'Is it possible that . . .', 'Could it be . . .?'. With Sophie, this might include comments such as 'Is it possible that your friends might be pleased to hear from you?', 'I wonder if your friends are wondering how you are?'

Making core beliefs explicit and open to discussion and evaluation is an important process. The therapist can also encourage the young person to test their core beliefs and to formulate alternative beliefs. Other methods for testing and working with core beliefs include the use of positive data logs and the 'continuum technique' (Padesky, 1994). For example, an alternative belief which Sophie might be encouraged to test is, 'It is possible to make friends again after a disagreement'. Sophie might be encouraged to recall real events or fictional events (e.g. films, books or television programmes) where she has seen friends overcome disagreements. The therapist might suggest current examples for Sophie to consider. In therapy sessions the therapist and young person might role play ways of resolving difficulties between two people. Following these exercises Sophie may be asked to rate the strength of her initial belief, i.e. 'If you disagree with someone or fall out with them, the relationship is over' and the alternative belief, i.e. 'It is possible to make friends again after a disagreement'. Positive data logs provide a structure to identify and rate new information which supports or challenges the core belief. Behavioural experiments where Sophie makes contact with her school friends can be used to generate information and evidence for and against the core belief.

Cognitive restructuring should link very closely with the shared formulation and may lead to a richer formulation of the young person's difficulties. The new, richer formulation is a concrete way of showing a change in the way in which the young person understands current difficulties.

Adapting cognitive behaviour therapy for young people who are depressed

Cognitive behaviour therapy for depression was developed for use with adults and working with young people requires some specific attention to developmental and systemic issues. Below are some pointers which can help.

1. Assess each young person and do not assume that their chronological age, or mature appearance are a good indicator of their psychological developmental stage.
2. Use psychoeducation to assist and accelerate learning. In CBT the therapist has the ideal opportunity to act to help young people to develop their cognitive, emotional and social skills and to apply those to their daily lives.
3. Check things out – be collaborative. The therapist's role is best viewed as someone who helps the adolescent to find his or her own solutions to problems. A useful model of the relationship can be the 'coach'; many young people will have experience of being coached or trained for a sport and the therapist can use that example.

Collaboration, or encouraging collaboration, should be evident at all stages of therapy and throughout the session. For instance, setting an agenda at the beginning of each therapy session should be routine and should be a joint exercise between the adolescent and the therapist. However, remember that many adolescents are not used to being asked about their point of view, and may find it very hard to deal with questions such as, 'What shall we do today?'. Therefore in early sessions it may be better to ask the adolescent about his or her current problems, or to summarise the problems from a previous session, and to then help them to choose one or two issues to target during that session.

4. Be explicit about things that happen in the room, use what is present to discuss more abstract things. Many adolescents have difficulties thinking about thinking, and so it is important from an early stage to help them to observe their own thought processes. One commonly used technique is for the therapist to comment on signals of emotion during the therapy session. For example, the statement '*It looks as if you are thinking about something that made you sad*' introduces the idea that thoughts lead to sadness. Or, '*I wonder if your tears mean you are sad about the way your mother treats you?*' may help a young person think about possible links between their experiences and their emotions.

Focusing on 'live' emotions helps the young person feel accepted and is consistent with working primarily in the 'here and now'. It sends a message about the capacity of the therapist to deal with negative emotions and their willingness to do so, allows the young person to share their distress, and provides live examples of feelings, and associated cognitions, that can be used therapeutically.

5. Include the family and other key systems (e.g. peers, school) in the formulation – do these reinforce core beliefs and dysfunctional assumptions? Can their influence be changed and if not how can it be countered? Also what strengths and resilience does the family and other systems offer – can these be harnessed in therapy?

6. If necessary use concrete examples. Diagrams, thought bubbles, examples from popular TV programmes, soap operas, celebrities, sporting analogies etc. all help make the CBT model real and accessible.

Young people may not use words in the same ways as adults. For example, the word 'depressed' can mean sad, irritated, hopeless and a range of other things. The therapist will often need to help adolescents to clarify what they mean. For instance, a therapist wanting to know what 'getting on better with my mother' means, might ask 'when you talk about getting on better, do you mean that she should increase your pocket money, spend more time with you, or do you mean something different?'. Similarly, an adolescent complaining that a father does not love them could be asked, 'how would your father behave differently if he loved you?' or 'what would you notice if your father loved you more?'.

7. Don't get tied into endless 'philosophical' discussions about abstractions e.g. good and bad, but do take advantage of curiosity and engagement in thinking about the 'bigger picture'.
8. Encourage empiricism. The term empiricism refers to two aspects of CBT. The first is that CBT uses empirical observations of behaviours and cognitions that are the basis for depression. Depression is not viewed as something that comes 'out of the blue' or as the result of unconscious processes. Rather, it is a problem that can be understood in terms of adversity, thinking and behaviours. The second empirical aspect of cognitive behaviour therapy is the use of an 'experimental approach to therapy'. The therapist does not have all the answers, and will often suggest *experiments* so that the adolescent can test out certain ideas.
9. Use yourself as a model. For example, model problem-solving using an optimistic and realistic approach to acknowledge difficulties in therapy or in your relationship. Many depressed adolescents lead stressful and difficult lives and it is easy to collude with the adolescent's belief that nothing can be changed.
10. Use parents where possible but accept that conflict may make this problematic. Young people are usually not independent of their families and are not therefore in a position to make completely independent decisions. Family members play an important role in the development of the adolescent's beliefs about the world. They may also play a practical role in the therapy, such as bringing the adolescent to the sessions. Family members will usually be involved in some sessions, though the therapist should always bear in mind that in CBT the young person is the primary client in the therapy and that in many cases the majority of sessions will be individual therapy.

Do not take sides. Knowing the adolescent's point of view does not mean that the therapist should agree with everything the adolescent says.

Parents/carers are likely to be concerned about the emotional well-being of the young person and may well have been directly involved in the process of seeking help. They may play an important part in motivating the young person to attend sessions. They may also be depressed themselves. For these and many other reasons, the parents may want to know how the therapy is going and may contact the therapist by phone or request a meeting or begin conversations in the waiting room. It is important that, at an early stage of the therapy, clear rules are agreed with the young person as to what the therapist will share with the parent in what circumstance. The exact rules may vary according to the circumstances of the case and level of risk but they should be explicit and agreed.

11. Encourage and support autonomy and use therapy sessions to transfer responsibility towards the young person.

Is cognitive behaviour therapy an effective treatment for young people with depression?

The effectiveness of CBT for adults with depression is well established. Cognitive behaviour therapy has broadly similar effects as anti-depressant medication and can reduce relapse (e.g. Gloaguen *et al.*, 1998). A systematic review of the efficacy of CBT in child and adolescent depressive disorders examined the results of six controlled trials and found modest evidence for better outcomes than being on a waiting list or relaxation therapy (Harrington *et al.*, 1998). New treatment methods such as mindfulness-based cognitive therapy appear to be particularly successful at reducing rates of relapse in adults with recurrent depression (Piet & Esben, 2011). Treatment guidelines in the UK recommend 16–20 sessions of CBT for adults with moderate to severe depression (NICE, 2005).

There are fewer research studies which have examined the effectiveness of different treatments for young people with depression and the results are less clear-cut. For example, Goodyer *et al.* (2007) examined the effect of adding CBT to ‘usual’ psychiatric care in routine UK child and adolescent mental health clinics. There was no evidence that adding CBT to usual care led to improved outcomes or was cost-effective.

The TADS trial, a large multi-site study from the USA (N = 439) compared four types of treatment: CBT only; medication only; combined CBT and medication; and a waitlist control group (March *et al.*, 2004, 2007). After 12 weeks of treatment combined CBT and medication had the highest improvement rates. Cognitive behaviour therapy on its own was less effective than medication on its own and than medication combined with CBT, and did not differ from the waiting list group in terms of symptom reduction. However, after 36 weeks of treatment there was no significant difference between the three active treatment arms i.e. CBT alone, CBT and medication combined and medication alone – in all three arms around 80% of young people had improved. Thus, treatment which included medication brought about improvement more quickly (at 12 weeks) but after 36 weeks there was no difference between CBT and treatment with medication. A further complication was that young people who received CBT either alone or with medication had lower rates of suicidal ideation than those who received medication only. Given previous concerns about the potential harmful effects of antidepressant medication on young people this finding is of great interest.

Future directions and challenges

Cognitive behaviour therapy has been successfully used with young people who are depressed. However, the outcome of CBT for depression appears to be less positive than CBT for anxiety disorders in young people and may be less positive than CBT for adults with depression. Young people with depression have very high rates of other mental health problems and are at high risk of future episodes of depression and other mental health problems. Developments in genetics, biology and psychology suggest that the aetiology of depression is complex.

The delivery of CBT with depressed young people has been based very largely on work with adults. There have been some interesting developments in working with adults which may have benefits for young people. In particular, mindfulness-based cognitive therapy appears to be highly effective with individuals who experience recurrent depressive episodes. There have been some adaptations of mindfulness-based techniques for children and young people (see Chapter 24, this volume) but as yet no formal trials to establish the

efficacy of these techniques for depression have been published. Similarly cognitive bias modification (CBM) led to significant reductions in depression in adults (Lang *et al.*, 2012). Cognitive bias modification may be particularly suited for use with young people because the method of delivery via computer means that it is easily accessible outside of clinical settings. It may also be a potentially useful preventative intervention, particularly for young people who are at risk of developing depression. Other indirect forms of intervention, using telephone, email, and the internet all require further development and evaluation in the treatment of young people with depression.

In addition to adapting and evaluating promising new treatments developed with and for adults, understanding depression from a developmental perspective may provide important new information. In addition to their adjustment to puberty and biological maturation, young people are changing cognitively and emotionally, negotiating new peer relationships and dealing with increased educational and occupational demands.

Herman *et al.* (2007) conducted a latent profile analysis on 423 adolescents with major depression who took part in the TADs trial. They identified five classes of symptoms, suggesting that there may be subtypes of depression with potentially distinct aetiology and response to treatment. Cognitive behaviour therapy has not developed to accommodate this range of presentations. Thus, depression associated with conduct problems and irritability may require management and treatment somewhat different from that for depression associated with internalising problems and avoidance. Given that depression is also associated with the emergence of other mental health problems including bipolar depression and psychosis it may also be important to develop CBT in the context of broader mental health services for young people so that any emerging problems can be appropriately managed.

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Section 6

Cognitive behaviour therapy: applications in preventive interventions

Prevention of conduct disorders: cognitive behavioural approaches

Stephen Scott

Introduction

The burden of conduct disorders

Conduct disorders are characterised by persistent antisocial behaviour in children and young people and are remarkably common: at the level of diagnosable disorders, even using relatively conservative criteria, they affect 5% of the population (Moffitt & Scott, 2008). The diagnostic term oppositional defiant disorder (ODD), generally applied with younger children, requires the presence of symptoms such as arguing, tantrums, refusal to carry out instructions, spitefulness and blaming others. It is a subtype of conduct disorder in the ICD-10 system (World Health Organization, 1992) but is a separate entity in the DSM-IV-TR system (American Psychiatric Association, 2000). The term conduct disorder requires the presence of more serious violations, usually found in older youths, such as fighting, using a weapon, physical cruelty to people or animals, running away from home and stealing with force (mugging). Whichever diagnostic category group they are in initially, such children are seriously impaired: at home, they evoke criticism and have few friends, and at school they are disruptive and typically end up leaving with few or no qualifications (Fergusson *et al.*, 2005). There is strong continuity to adulthood criminality, drug and alcohol misuse and unemployment (Fergusson *et al.*, 2005). The lifetime cost to the public of a high-risk youth has been estimated to be \$1.7–2.3 million in the USA (Cohen & Piquero, 2009), and in England individuals with conduct disorder aged 10 cost society ten times as much as controls by age 28 (Scott *et al.*, 2001).

Rationale and feasibility of prevention of conduct disorders

To be worth attempting prevention, a condition needs to (a) be detectable early; (b) be amenable to preventive or early intervention strategies that are potentially available and effective; and (c) proceed to a more seriously damaging condition later in a substantial proportion of cases. How do conduct disorders measure up to these criteria? (a) Early signs are relatively easy to detect at the individual level – parents and nursery workers or teachers can spot disruptive disorders fairly reliably, and screening instruments such as the Strengths and Difficulties Questionnaire detect it with good sensitivity and specificity (Goodman, 2001). At a group level, identifiable demographic characteristics are available that increase the odds of conduct disorders several fold; for example parents who are long-term unemployed, teenage mothers, parents with mental health disorders. (b) As will be discussed in more detail later in this chapter, there are interventions that can work and that can potentially be made

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available, for example teaching children socio-emotional skills in schools, giving teachers classroom management skills and training parents to encourage child prosocial behaviour and use effective strategies to handle misbehaviour. (c) A substantial proportion of young children continue into teenage and adulthood to serious outcomes. In a series of papers Moffitt (summarised in Moffitt & Scott, 2008) delineated a group of young children (about 4–6%) with ‘early onset, lifetime persistent’ conduct problems. The risks of the continuity mentioned in the introduction from children aged 7 with ODD to adulthood criminality, drug and alcohol misuse, and unemployment are large, with the odds ratio for each of these outcomes showing them to be around five times more likely (Fergusson *et al.*, 2005). Whilst 50–70% do not end up with these notably impairing outcomes, they are not free from problems either – they do considerably less well than children who did not display antisocial behaviour when young (Fergusson *et al.*, 2005). In summary, conduct disorders are a good candidate for attempting prevention on all three criteria. This is not the case to the same degree for all childhood disorders – thus for example, depression is hard to detect reliably under age 8, has a waxing and waning course, and has modestly successful treatments when fully established later.

There is also a need to develop prevention and early intervention services because current treatments for established conduct disorders are unsatisfactory in many ways. Firstly, only about a quarter of cases meeting criteria for ODD/conduct disorder receive specialised help (Ford *et al.*, 2005). Secondly, many specialist treatments offered are not grounded in empirically based theory, but rather on general beliefs about psychotherapeutic counselling or medication (Bickman *et al.*, 1999). Thirdly, many children and families only receive treatment in later childhood or adolescence, when outcomes are poorer (US Surgeon General, 2001). Fourthly, treatments shown to be efficacious in the university clinics of their originators typically show little effectiveness in the few independent replications in ‘real-life’ practice (Weisz *et al.*, 2006). Fifthly, most child mental health services are for clinically referred cases: there are relatively few routinely delivered prevention programmes.

National initiatives

If prevention of conduct disorders is to be anything more than a theoretical possibility or a rare activity occasionally undertaken in limited demonstration projects, it requires recognition of the problem and possible solutions at governmental level. There have been a number of relevant European and American reports and initiatives in the last decade or so. For example, the US Surgeon General’s report (2001) on youth violence described it as an epidemic and called for rigorous evaluation of prevention programmes. Subsequently, a number of Prevention and Intervention Research Centres (PIRCs) were funded. The National Academies of Science (2009) report on the prevention of mental, emotional and behavioural (MEB) disorders stated that ‘Research on the prevention of MEB disorders should focus on interventions that occur before the onset of disorder but should broaden the range of outcomes to include accomplishment of age-appropriate developmental tasks (e.g., school, social, and work outcomes)’. In Norway, Sweden and England there have been national initiatives rolling out evidence-based parenting programmes on a large scale (Scott, 2010). The Allen review on early interventions in England (2011) recommended the widespread implementation of a range of evidence-based approaches, but was not supported by any substantial new funding. However, to reduce the impact of poverty on poor outcomes more generally (not just antisocial behaviour/conduct disorders), the

government in England has continued to fund SureStart early intervention programmes which cost £500 million to set up, and whose evaluation suggested improved parenting and child outcomes (Melhuish *et al.*, 2008).

Levels and modes of delivery

The US Institute of Medicine (1994) has proposed a classification of levels of prevention in accordance with the population served. *Universal prevention* is offered to the entire population of a particular area. *Targeted prevention* is offered to particular groups. *Targeted selective prevention* is aimed at children at increased risk by virtue of their membership of a vulnerable subgroup (e.g. the children of highly stressed, economically disadvantaged, single mothers), or because they are about to experience a life transition or stressful event (e.g. leaving school, divorce). *Targeted indicated prevention* is directed at groups who are identified as being at risk by virtue of symptom patterns (e.g. aggressive behaviour at home or at school).

Prevention can also be classified in accordance with the *modality* and *timing* of intervention. In this chapter, as we are discussing cognitive behavioural interventions, the modality refers to whether the intervention is delivered directly to the individual, or via the parent, the teacher or school, or a combination. There can be other, non-psychological interventions that may prevent conduct disorders, thus for example Costello *et al.* (2003) found that on an Indian Reservation where casinos were introduced and each family was given \$6000 a year, conduct disorder levels reduced, with lasting effects into adulthood (Costello *et al.*, 2010). Examples of CBT programmes at each of the levels and modalities are given in Table 20.1.

Timing refers to the developmental period when the intervention occurs: antenatal, infancy, preschool, middle childhood or adolescence. While the aim of a prevention programme will be to set a child off on a favourable life trajectory from the outset, just because an approach is effective early, for example by promoting secure attachment, this does not mean that the problem is solved. There may be new risk factors later in development, when a different approach to prevention may be needed, for example drug avoidance campaigns. Vice versa, the fact that conduct disorder was not prevented early does not mean all hope of improvement is lost later – there are many interventions that are effective in adolescence (Lipsey, 2009).

Targets of interventions and mechanisms of action

There are many factors implicated in the causation of conduct disorders – the review by Moffitt and Scott (2008) lists 24. They include *intra-individual factors*, such as genetics and temperament, poor emotional regulation, insecure attachment patterns, reading problems, cognitive distortions; *family functioning* such as lack of warmth and harsh, inconsistent discipline, interparental violence and abuse; and *community factors*, such as being bullied, associating with a deviant peer group, attending a poorly organised school, living in a risky neighbourhood, being poor. The chances of a preventive programme being effective are far greater if it addresses a proven major risk factor and focuses on changing it, and has systems in place to monitor progress. This may sound obvious, but there are a number of well-meaning interventions that do not do this, and are ineffective; some are positively harmful. For example, McCord (1992) studied the long-term effects of a multi-modal prevention programme for conduct disorder and delinquency that included the attractive idea of summer camps away from the city. It turned out that the intervention led to *more* crime,

Table 20.1 Levels of prevention* of conduct disorder and modes of delivery.

Level	Mode of delivery			
	Young person	Parent	Teacher/school	Multi-modal Universal
Universal (for all children in a particular area/community)	Information and media campaigns addressing child and young person risk behaviours e.g. drinking, carrying knives; self-help manuals e.g. <i>I Can Problem Solve</i>	Information and media campaigns addressing parenting behaviour e.g. Triple P level 1	<i>Socio-Emotional Learning</i> (SEL) programmes as part of normal classes; whole-school anti-bullying programmes	Community wide prevention e.g. after-school clubs and youth activity programmes, surveillance including police, closed circuit TV cameras, etc.
Targeted–Selective (for populations with a general risk factor, such as poverty or a teenage parent)	Campaigns directed at particular groups of children and young people, e.g. emotional self-awareness and control, self-esteem, positive social skills, conflict resolution	Programmes addressing populations at risk, e.g. <i>Nurse-Family Partnership</i> home-visiting programme for young, unsupported or poor mothers	Emotional processing or behavioural programmes e.g. Promoting Alternative Thinking Strategies (PATHS), the Good Behaviour Game (GBG)	Multiple services for at-risk groups, e.g. <i>SureStart Centres</i> in high-need areas with a range of helping professionals
Targeted–Indicated (for individuals already showing behaviours or signs indicative of the problem)	Anger management programmes e.g. <i>Coping Power</i>	Group parenting programmes e.g. Incredible Years	Problem-solving therapies for small groups of children with disruptive behaviour, e.g. <i>Dinosaur School</i> Families and Schools Together (Fast Track)	

*Using the Institute of Medicine (1994) classification.

drug taking and unemployment; interviews suggested that the young people taught each other the best ways to break in, sell drugs etc. during the summer camps. This is not to say all group interventions for conduct-disordered children and young people are harmful, indeed there is plenty of evidence to the contrary (Weiss *et al.*, 2005), but sufficient supervision to prevent reinforcement of antisocial attitudes and behaviours is necessary. Likewise, punitive regimes such as boot-camps may assuage society's anger, but are ineffective at preventing re-offending (Meade & Steiner, 2010).

Examples of effective programmes

Programmes applied directly to individual children and young people

Anger management programmes build on the evidence that aggressive children have poor recognition of their emotions, over-valued beliefs about the effectiveness of aggression, and are quick to become emotionally aroused in situations they perceive as threatening. They are best delivered by skilled clinicians, either to children individually or in groups. Early therapeutic sessions involve assisting the children to recognise their anger in difficult interpersonal encounters, identify the triggers and take the perspective of the other person, including recognising whether their intentions are truly hostile. Realising that the other person may have made a mistake, be bored or be unable to communicate more effectively can reduce feelings of anger. The next stage is to practice coping techniques to reduce anger arousal and avoid impulsive, rage-filled responses. Techniques include the use of distraction, relaxation and self-talk. These need to be repeatedly practiced, under conditions of increasing threat, for example initially with puppets but then by role play with other young people. The children are reinforced for creating a repertoire of coping self-statements that are meaningful and useful for them, and encouraged to practice them in real-life situations. Perhaps the best known preventive anger management programme is that developed by John Lochman, called *Coping Power* (Larson & Lochman, 2011). In line with many CBT interventions, the steps for the young person are: (1) identify the problem and their emotional reaction to it; (2) analyse the possible intentions of the other party; (3) come up with potential solutions to the conflict; (4) analyse the short- and long-term consequences of each solution; (5) choose and enact plan; (6) evaluate the effectiveness of the plan as it was implemented and learn the lessons from this. Evaluations by the programme developer suggest short-term effectiveness that is maintained at 2-year follow-up, and (in a Dutch replication) that led to reduced substance misuse 4 years later (Larson & Lochman, 2011). Limitations of anger management programmes include: quite a few young people with conduct disorders will not engage in them; there are few practitioners with the necessary skills available; and some young people can demonstrate the necessary steps in the clinic situation, but in real-life provocations still cannot control their angry outbursts.

Programmes for parents

As noted above, parenting styles are a major determinant of conduct disorders. This has led to very many parenting programmes being developed. Those based on social learning theory have proved to be the most effective, although at the targeted-selective level, broader programmes have also got good results. The best known is the *Nurse-Family Partnership* (disseminated in England under the name *Family-Nurse Partnership*) devised by Olds *et al.* (2007). At-risk mothers (determined by for example poverty or being a teenager) are visited at home before their child is born and then regularly for the next 2 years. A thorough

Table 20.2 Components of effective parenting programmes.*Content*

- Structured sequence of topics, introduced in set order over 10–12 weeks
- Curriculum includes play, praise, rewards, setting limits and discipline
- Parenting seen as a set of skills to be deployed in the relationship
- Emphasis on promoting sociable, self-reliant child behaviour and calm parenting
- Constant reference to parent's own experience and predicament
- Theoretical basis informed by extensive empirical research and made explicit
- Plentiful practice, either live or role-played during sessions
- Homework set to promote generalisation
- Accurate but encouraging feedback given to parent at each stage
- Self-reliance prompted, e.g. through giving parents tip sheets or book
- Emphasis on parent's own thoughts and feelings varies from little to considerable
- Detailed manual available to enable replicability

Delivery

- Strong efforts made to engage parents, e.g. home visits if necessary
- Collaborative approach, typically acknowledging parents' feelings and beliefs
- Difficulties normalised, humour and fun encouraged
- Parents supported to practice new approaches during session and through homework
- Parent and child can be seen together, or parents only seen in some group programmes
- Creche, good quality refreshments, and transport provided if necessary
- Therapists supervised regularly to ensure adherence and to develop skills

evaluation is made and a range of evidence-based, manualised interventions is implemented by a nurse who has built up a trusting relationship with the mother. The nurses have three major goals: (1) improve the outcomes of pregnancy by helping women improve their prenatal health, for example by smoking and drinking cessation where indicated; (2) improve the child's health and development by helping parents provide more competent care; and (3) improve parents' life course by helping them develop visions for their futures, make good choices about planning future pregnancies, complete their education and find work. Toward these goals, the nurses help women build supportive relationships with family members and friends, especially boyfriends, fathers and grandmothers; and link families with other services. There have been three major randomised controlled trials. Compared with controls, nurse-visited women had longer intervals between births of first and second children, fewer cumulative subsequent births per year, and longer relationships with current partners. From birth to child age 9, nurse-visited women used welfare and food stamps for fewer months. Nurse-visited children born to mothers with low psychological resources, compared with control-group counterparts, had better school exam averages and achievement test scores in maths and reading, and fewer conduct symptoms. Longer-term follow-ups show enduring benefits right through to adulthood, with less antisocial behaviour and crime (Olds, *et al.*, 2004).

At the targeted-indicated level, the most widely independently replicated programme is the *Incredible Years*, developed by Webster-Stratton and Reid (2010). This has all the characteristics of an effective programme, as shown in Table 20.2. Although delivered in a group format with DVD vignettes, the session-by-session content is similar to that used in individual programmes. Because they are now widely used, the constituent parts will be described in some detail here.

Part 1. Methods for promoting a child-centred approach

The first part covers play. This is seen as a fundamental aspect of improving the relationship with the child. Parents are asked to follow the child's lead rather than impose their own ideas. Instead of giving directions, teaching and asking questions during play, parents are instructed simply to describe what the child is doing, to give a running commentary on their child's actions. Usually the effect of their behaviour on the child during the training session is soon observed by the parent. For cases where virtually all communication with the child has become nagging and complaining, play is an important first step in mending the relationship. It often helps the parent to have fun with the child and begin to have some positive feelings towards him. Parents are asked to practice these techniques for 10 minutes every day. Crucially, as well as training in the techniques, at the next session the previous week's 'homework' of playing at home is gone over with the parent in considerable detail. Often there are practical reasons for not doing it ('I have to look after the other children, I've got no help') and parents are then encouraged to solve the problem and find ways around the difficulty (solutions arrived at might include doing the play after the younger sibling has gone to bed; getting the oldest child to look after the baby while the parent plays with the toddler, etc.). For some parents there may be emotional blocks ('it feels wrong – no one ever played with me as a child') which need to be overcome before they feel able to practice the homework.

Part 2. Increasing desirable child behaviour

Praise and rewards are covered here. The parent is required to praise their child for lots of simple everyday behaviours such as playing quietly on their own, eating nicely, getting dressed the first time they are asked, and so on. In this way the frequency of desired behaviour increases. However, many parents find this difficult. Firstly, they may say 'but he *should* be doing these things anyway, without being praised for it – there's really no need'. Secondly, when their child has misbehaved earlier in the day they are still cross, and this prevents them praising good behaviour when it occurs. Thirdly, some parents find that even when they want to praise their child, the whole process feels alien to them. Often they never experienced praise themselves as a child. Usually with directly coached practice it becomes easier. Later sessions go through the use of reward charts.

Part 3. Setting clear rules

Clear commands are covered next. A hallmark of ineffective parenting is a continuing stream of ineffectual, nagging demands for the child to do something. In the programme, parents are taught to reduce the number, but make them much more authoritative. This is done through altering both the manner in which they are given, and what is said. The manner should be forceful (not sitting down, timidly requesting from the other end of the room; instead, standing over the child, fixing him in the eye, and in a clear firm voice giving the instruction). The emotional tone should be calm, without shouting and criticism. The content should be phrased directly ('I want you to . . .') and not indirectly or as a question ('wouldn't you like to . . .?'). It should be specific, labelling the desired behaviour which the child can understand, so it is clear to him when he has complied ('keep the sand in the box') rather than vague ('do be tidy'). It should be simple (one action at a time, not a chain of orders), and performable immediately. Commands should be phrased as what the parent *does* want the child to do, not as what he should *stop* doing ('please speak quietly' rather than 'stop shouting'). If a child is in the middle of an activity, rather than abruptly ordering a stop, a warning should be given ('in two minutes you'll have to go to bed'). Rather than threatening the child with vague, dire

consequences ('you're going to be sorry you did that'), *when-then* commands should be given (when you've laid the table, then you can watch TV').

Part 4. Reducing undesirable child behaviour

Consequences for disobedience are covered next. They must always be followed through – children quickly learn to calculate the probability they will be applied, and if in fact a sanction is only given every third occasion, a child is being taught he can misbehave the rest of the time. Simple logical consequences should be devised and enforced for everyday situations. If water is splashed out of the bath, the bath will end; if a child refuses to eat dinner, there will be no pudding etc. The consequences should 'fit the crime', should not be punitive, and should not be long-term (e.g. no bike riding for a month), as this will lead to a sense of hopelessness in the child who may see no point in behaving well if it seems there is nothing to gain. Consistency of enforcement is central.

Ignoring is an important additional technique. This sounds easy but is a hard skill to teach parents. Whining, arguing, swearing and tantrums are not dangerous to children and other people and can usually safely be ignored. The technique is very effective. Children soon realise they are getting no pay-off for the behaviours and soon stop. Vice versa, if acting this way gets them attention and shows them they can annoy and wind-up their parents, they will continue to hone their skills in so doing. Ignoring means avoiding discussion, avoiding eye-contact, turning away, but staying in the room to monitor. As soon as the child begins to behave appropriately, it is essential to attend and give praise. This is central to shaping up desirable behaviour. Many parents find this difficult as they are often still angry with the child.

Time out from positive reinforcement remains the final 'big one' as a sanction for unacceptable behaviour. The point here is to put the child in some boring place away from a reasonably pleasant context. This will not be the case if the home is generally negative, when being sent to a room alone will be a relief and not a punishment. Equally, if the room has lots of interesting toys it will also not be a punishment. Time out should be used for a previously agreed reason (hitting, breaking things etc. – not minor infringements) for a short time (say 1 minute for each year of age). However, the child must be quiet for the last minute – if he is still screaming, he stays in for as long as it takes until he's been quiet for a minute. Parents must resist responding to taunts and cries from the child during Time Out, as this will reinforce the child by giving attention. Time out provides a break for the adult to calm down also.

Evaluations of the *Incredible Years* programmes show consistent reductions in conduct problems and disorder in a preventive context (Scott *et al.*, 2010b; Webster-Stratton & Reid, 2010). Effects are bigger for more severe conduct problems, and can be small in universal preventive approaches (Scott *et al.*, 2010a). Whether such programmes have long-term effects into adulthood requires further research. However, on the basis of positive shorter-term (2–4 years) effects, in 2007 the British government set up the National Academy for Parenting Practitioners which then trained 4000 professionals in evidence-based approaches (Scott, 2010). With greater dissemination of parenting programmes, clinicians are increasingly seeing cases where prevention has failed, and in these circumstances a wider range of strategies may need to be deployed to effect change (Scott & Dadds, 2009).

Programmes for teachers and schools

At a universal level, Social and Emotional Learning (SEL) programmes aim to enable children to acquire core competencies to recognise and manage emotions, set and achieve positive goals, appreciate the perspectives of others, establish and maintain

positive relationships, make responsible decisions, and handle interpersonal situations constructively. The proximal goals of SEL programmes are to foster the development of five inter-related sets of cognitive, affective and behavioural competencies: self-awareness, self-management, social awareness, relationship skills and responsible decision-making (Durlak *et al.*, 2011). These competencies, in turn, should provide a foundation for better adjustment and academic performance as reflected in more positive social behaviours, fewer conduct problems, less emotional distress, and improved test scores and grades. Over time, mastering SEL competencies should result in a developmental progression that leads to a shift from being predominantly controlled by external factors to acting increasingly in accord with internalised beliefs and values, caring and concern for others, making good decisions, and taking responsibility for one's choices and behaviours.

Probably the best researched and most widely implemented formal SEL programme is *Promoting Alternative Thinking Strategies* (PATHS) (Domitrovich *et al.*, 2007). This is a programme where children are encouraged through stories and role play to identify their emotions and how to cope with difficult situations in a problem-solving way. It is taught by the children's regular teachers in weekly lessons throughout the school year. Results of trials suggest that after exposure to PATHS, intervention children had greater skills in recognising their own emotions and those of others, and were rated by parents and teachers as more socially competent compared with peers. Further, teachers rated intervention children as less socially withdrawn at the end of the school year compared with controls.

There have been many RCTs of a range of SEL programmes, almost all in the USA. A meta-analysis of 213 school-based, universal (SEL) programmes involving 270 034 primary and secondary school pupils found that, compared with controls, SEL participants demonstrated significantly improved social and emotional skills, attitudes, behaviour and academic performance that reflected an 11-percentile-point gain in achievement (Durlak *et al.*, 2011). Such findings are encouraging but the huge problem is whether such demonstration projects can be translated into everyday life. There was widespread adoption in schools in England of *Social and Emotional Aspects of Learning* (SEAL) programmes. The evaluation in primary schools of the small group, selective-targeted aspect showed small effect-sizes in some of the measured outcomes, with increases in pupil-rated overall emotional literacy; increases in staff-rated self-regulation, decreases in staff-rated peer problems, and increases in pupil-rated empathy, self-regulation, social skills and overall emotional literacy (Department for Education, 2010a). However, in secondary schools SEAL showed no overall effects on pupils (Department for Education, 2010b). This was due to poor implementation: where it had been well-implemented, a trend towards significant results emerged (Department for Education, 2010b). Schools that implemented it well tended to be schools that were generally well-organised, with high morale, low turnover of staff and a clearly transmitted set of rules and sense of a guiding ethos.

Programmes that use multiple approaches

A number of recent high-quality prevention trials have combined several evidence-based approaches. For example, Webster-Stratton *et al.* (2008) combined parent training with child social skills training to good effect. Some have added literacy or school behaviour components led by teachers (Tolan *et al.*, 2004). Fast Track was a model efficacy trial, with six separate types of intervention, but as with many multi-modal trials had modest effects:

the mean effect size on antisocial behaviour was 0.11 standard deviations (Conduct Problems Prevention Research Group, 1999).

Prevention in real life: implementation issues

Nation *et al.* (2003) reviewed prevention programmes and reported nine qualities that characterised programmes that were effective, as follows:

Comprehensiveness. Successful programmes employed combinations of interventions to increase awareness and promote skills, and were directed at individual, family and school-system levels. Risk factors were addressed and protective factors enhanced or promoted.

Variation in teaching methods. Most effective programmes emphasised skill-building through interactive instruction and practical experience.

Adequate dosage. Good interventions lasted long enough and were sufficiently intense to have an effect: the greater the needs of the participants, the longer the duration of the programme and the more intensive it had to be. Booster sessions were provided to enhance prior skills learned or to introduce new, developmentally appropriate skills.

Theoretical model. Effective interventions were grounded in explicit theoretical models of the interaction between risk and protective factors, and how these factors might be eliminated, ameliorated or enhanced.

The promotion of positive relationships. Parent–child, child–teacher and peer relationships were addressed, and positive adult models (e.g. mentors) provided.

Appropriate timing. Effective interventions were delivered before the participants have developed the targeted problem to a full extent, thus giving the intervention the opportunity to alter pathogenic developmental trajectories. Furthermore, the intervention was developmentally appropriate; in other words, it was tailored to the cognitive and social development of the participants.

Sociocultural relevance. Intervention programmes that reflected local community norms, cultural beliefs and practices increased the receptiveness of participants and families. Successful programmes took into account the individual needs of participants. One-size-fits-all programmes worked best for those who least needed them and may have been actually harmful for those most in need of intervention.

Outcome evaluation. Effectiveness was based on evaluation, not anecdote or fashion. Good programmes incorporated continuous quality improvement through the feedback of outcome data.

Staff training and support. Effective programmes paid close attention to the selection, training, supervision and continuing support of staff. The opinions of staff were sought concerning the implementation and evaluation of the programme. High staff turnover, conflict and demoralisation sabotaged effective intervention. Supervision and the provision of treatment manuals counteracted the tendency of some staff to drift off the treatment model. In other words, there was ongoing focus to ensure that the programme was delivered with fidelity.

These nine characteristics have been borne out by subsequent research, and mirror findings for clinically indicated interventions for conduct disorders (Lipsey, 2009). In future, in addition to new research on fundamental principles and mechanisms affecting prevention, the challenge is to focus on implementation issues and raise the quality of fidelity of delivery. Otherwise the best-intentioned preventive efforts will be a waste of money and, worse, will let down children whose lives could otherwise be improved.

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Prevention of anxiety disorders

Jennifer L. Allen, Cathy Creswell and Lynne Murray

Introduction

Anxiety disorders are common and associated with significant impairment in family, peer and academic domains. They typically emerge in childhood or adolescence (Kessler *et al.*, 2005), take a chronic and recurrent course if left untreated (Last *et al.*, 1996), and increase the risk for mental health problems including other anxiety disorders, depression and substance abuse (Bittner *et al.*, 2007). In addition, anxiety disorders are associated with poor long-term outcomes including reduced career choices, alcohol abuse, increased use of health services and suicide (Norton *et al.*, 1996; Roy-Byrne & Katon, 1997). While treatment for anxiety is effective for 50–60% of children, many continue to experience considerable difficulties; some drop out of treatment prematurely and others experience a recurrence of symptoms in the longer term (James *et al.*, 2005; Last *et al.*, 1996). The substantial personal, societal and financial cost of anxiety disorders highlights the importance of identification of children at risk, improved access to health services, and prevention and early intervention for anxiety (Barrett & Pahl, 2006). Ideally, interventions should be provided before difficulties have progressed to the point where child anxiety and maladaptive patterns of family interaction have become rigid and difficult to treat (Dadds *et al.*, 1997).

Primary prevention has been defined as interventions delivered to children prior to the initial onset of disorder (Mrazek & Haggerty, 1994). One approach to classifying preventive interventions categorises programmes on the basis of the population targeted. Specifically, universal preventive interventions are delivered to an entire population group, regardless of their risk for disorder. Indicated programmes target children who show symptoms of psychopathology, but who do not meet criteria for a mental disorder. Selective programmes target children who are identified as being at higher risk for a mental disorder because of the presence of psychological, biological or environmental risk factors. These three different types of approaches to prevention, universal, indicated and selective, will be reviewed here.

Universal prevention

Universal prevention is the approach that is most likely to reach children who have not been identified as needing help or who have limited access to services. Unlike targeted approaches, as described below, screening for anxiety or other risk factors is not needed in

this approach, and therefore the risk of stigmatisation is reduced. Universal prevention programmes have most commonly been administered within preschool and school settings. For example, Dadds and Roth (2008) conducted a trial of a universal prevention programme with 734 children aged 3–6 years in the preschool setting. Their Reach for Resilience programme consists of six sessions directed to parents who are provided with strategies to build positive expectations and social competency in their children. Children whose parents received the programme showed reductions in teacher-reported internalising problems over time; however, the effect sizes were small and there were no changes for parental diagnostic ratings. The results of this trial are difficult to interpret because highly stressed parents in the intervention condition were more likely to attend the programme and also more likely to drop out of the waitlist condition than parents reporting low stress levels, and, perhaps as a result of this difference between the intervention and waitlist control conditions, differences only approached a statistically significant level. Attendance was also poor, with only 34% of parents in the intervention group attending more than four sessions. This highlights problems with motivation that may occur in universal trials, as parents of children with few or no symptoms of the disorder are unlikely to view a prevention programme as useful or relevant.

An alternative approach to universal prevention, which overcomes this limitation to some extent, is to deliver interventions with school-age children directly within the school timetable. Universal prevention trials aimed at reducing the incidence of anxiety disorders in children in school settings have most commonly been conducted using the FRIENDS programme (Barrett *et al.*, 1999a, 1999b). FRIENDS is based on the well-established Coping Cat treatment programme (Kendall, 1994), adapted for preventive intervention. FRIENDS is CBT-based, and includes psychoeducation, relaxation, positive self-talk, graded exposure, problem-solving and rewards. It consists of two different versions, one for children (7–11 years) and the other for youth (12–16 years). The programme is manualised and includes ten weekly sessions, two booster sessions and homework activities to consolidate learning. Sessions are conducted within normal class times and include workbook exercises, role plays, games, activities and group work. The programme may also include two to four parent sessions which cover the nature of anxiety in children, strategies for parents to manage their own anxiety, strategies for dealing with their child's anxiety and problem-solving skills.

Studies conducted by the developers of FRIENDS have shown that this programme is effective in reducing anxiety symptoms in school-age children, and that these positive effects are maintained at a 3-year follow-up (see review by Farrell & Barrett, 2007). A recent meta-analysis (Fisak *et al.*, 2011) provides strong support for FRIENDS, demonstrating that studies using the FRIENDS manual typically achieved larger effects ($d = 0.25$, $Z = 6.90$, $p < 0.001$) than studies using alternative programmes ($d = 0.11$, $Z = 3.24$, $p < 0.001$) when compared with outcomes for non-intervention groups. However, where evaluations have been conducted by independent research groups, outside Australia, outcomes have been more modest, possibly due to the effects of experience or staff allegiance to the programme in Australia (Lau & Rapee, 2011). For example, children (aged 9–10 years) who completed FRIENDS in the UK showed reduced anxiety and improved self-esteem at 3- and 6-month follow-ups compared with 6 months before the intervention, but not compared with levels immediately prior to the intervention (Stallard *et al.*, 2007, 2008). Furthermore, a recent Canadian study randomly assigned 253 children to FRIENDS or to an attention control group, where children were read *Harry Potter* (Miller *et al.*, 2011). Children in the attention

control group showed similar decreases in anxiety symptoms to children who received FRIENDS at the 1-year follow-up. This prevention study is the first to include an attentional control condition, with findings highlighting the possibility that the reported effects of prevention programmes may be attributable to non-specific factors, such as teacher attention or the enjoyment of an activity as part of a larger group.

Overall, universal programmes appear to exert a small but significant preventive effect on anxiety in older children and adolescents (Fisak *et al.*, 2011; Neil & Christensen, 2007). Universal programmes often produce small effects as many children at low risk will receive the intervention, and therefore only minor improvements can be achieved. However, the major advantage of universal programmes is that even small effects achieved in large populations may result in the prevention of anxiety in substantial numbers of children. The lack of improvement in some universal trials indicates that further research is needed to guide implementation and to understand how their apparent success in the Australian school setting might be achieved in other countries. A major drawback of the universal approach is that much of the prevention effort will be directed at children who do not need it. Universal prevention may therefore be less cost-effective than targeted approaches, especially considering that delivery to large populations involves substantial resources; however this remains to be evaluated.

Indicated prevention

As noted above, strictly indicated interventions target children who are at-risk by virtue of subclinical symptoms of disorder. In reality, however, it is difficult to distinguish children who have sub-clinical and mild clinical presentations on the basis of the screening questionnaires typically used. As such, indicated 'prevention' programmes have rarely been able to distinguish between preventive and treatment effects. Like universal prevention programmes, most indicated prevention research has been school-based, with children selected because they scored above a threshold on a measure of anxiety symptoms. Indicated preventions may achieve a greater impact than universal preventive interventions as resources are directed to children who are more likely to be in need. However, this approach faces challenges in terms of choice of selection strategy, recruiting participants, and implementing the programme while avoiding stigmatisation, which may be particularly difficult in the school setting (Barrett & Pahl, 2006).

Dadds *et al.* (1997) conducted a large indicated prevention trial that selected 7–14-year-old children on the basis of child self-reported anxiety symptoms or teacher nomination. Following initial screening, parents of selected students completed a diagnostic interview and children with a subclinical or mild anxiety disorder were invited to participate. The intervention and monitoring groups showed similar reductions in anxiety immediately post-intervention; however, at the 6-month follow-up improvements were only maintained in the intervention group, and there were lower rates of new onset anxiety disorders in the intervention compared with the monitoring group. Nevertheless, there were no significant group effects at 1- and 2-year follow-up, suggesting that preventive effects occurred only in the short term. With regard to treatment effects, by contrast, there was a significant effect at 2 years, with children who had an anxiety disorder at baseline showing greater reductions in anxiety diagnoses following intervention compared with the control condition (Dadds *et al.*, 1999). This study was replicated by Hunt *et al.* (2009) to see if similar outcomes could be achieved when the programme was delivered by school counsellors and teachers. In this

study intervention and waitlist conditions did not differ at the 2-year or 4-year follow-ups. The lack of significant differences between the intervention and waitlist groups in this study may be due to a variety of factors including the older age of children (11–13 years), minimal parental involvement, or the use of lay professionals rather than clinicians with a background in CBT.

The above studies all used a minimum 1-year follow-up for their waitlist control group, enabling investigation of preventive intervention outcomes in the long term. Two additional indicated prevention studies used a shorter time frame for their follow-up assessment, and are thus more limited in their ability to control for the passage of time and the natural course of anxiety in children. For example, Liddle and Macmillan (2010) evaluated FRIENDS in a Scottish school setting, finding significant improvements in anxiety, mood, self-esteem and social skills which were maintained at a 4-month follow-up. Mifsud and Rapee (2005) evaluated a school-based early intervention programme for children from low socioeconomic status areas who were considered at-risk because of high levels of child self-reported anxiety symptoms. Children received eight group sessions supplemented with two parent information evenings, with the programme delivered by a school counsellor and a qualified mental health practitioner. Children in the intervention condition showed significant reductions in anxiety symptoms relative to children allocated to waitlist, with differences maintained 4 months after treatment according to child and teacher reports.

Bernstein *et al.* (2005) randomly allocated schools to child-focused group CBT, child-focused group CBT plus a parenting component and a monitoring-only group, in order to evaluate whether the inclusion of parents in indicated prevention leads to a significant improvement in outcomes. Children aged 7–11 years who met criteria for an anxiety disorder (75%) or were classified as subthreshold for an anxiety disorder (25%) were selected to participate. The intervention followed the FRIENDS manual, with its concurrent 4-session parenting component extended to 9 sessions to include parent anxiety and stress management, and understanding the influence of child anxiety on family relationships. Groups did not differ in rates of anxiety disorders at follow-up; however, when the two intervention conditions were combined, significant reductions in anxiety severity and impairment were evident at the 12-month follow-up for the intervention group compared with the control condition. There were also greater improvements on several parent-report measures at the 3- and 6-month follow-ups for the intervention that included a parenting component. Whether the additional resources required for the parental intervention is justified in terms of outcomes requires further evaluation.

An alternative approach is to offer indicated preventative interventions to parents alone (i.e. without including the child), an approach that appears to be associated with treatment outcomes for young anxious children that are as good as those obtained when working exclusively and in parallel with the child (Waters *et al.*, 2009). Consistent with treatment research, findings from a recent indicated trial with children aged 8–13 years, classified as high-anxious on the basis of child self-reported anxiety, suggest that equivalent outcomes can be produced whether the child or the parent is the focus of treatment (Simon *et al.*, 2011). Here, 183 ‘high-anxious’ children were randomised to either a child-focused group intervention, parent-focused group intervention or to no intervention. Children in the child-focused intervention completed eight group CBT sessions (90 min), while the parent-focused intervention consisted of three group sessions (90 min) and five telephone sessions (15 min) with each parent. The parent-focused intervention covered the same strategies as the child-focused intervention; however, parents also worked on

their own anxiety, the co-parenting relationship and strategies to promote their child's bravery. A greater number of children were classified as improved in both intervention groups compared to the no-intervention group at the 2-year follow-up, but there were no significant differences between the two intervention groups. It is worth highlighting that in this study the parent intervention was relatively brief, and may present an efficient mode of delivery of indicated prevention. Future research is required to consider which families benefit most from the different forms of treatment delivery, and whether, for example, parent-focused interventions may be more effective for younger children who are more reliant on parents.

The mixed findings for indicated prevention may be attributable to factors such as selection strategy, or provider background and training (Lau & Rapee, 2011). For example, studies using lay providers such as teachers or school counsellors have tended to produce poorer results than interventions led by qualified psychologists (Fisak *et al.*, 2011). Future research is needed to guide how to achieve better outcomes with lay providers, given the potential advantages of greater access, increased cost-effectiveness and integration of the intervention with existing community services. A further issue arising in relation to indicated prevention concerns identification of risk: selection based on child report of symptoms benefits from their greater ability to describe internal processes, but may be less reliable in younger children and influenced by the desire to avoid being singled out for participation. Parents who report that their child has subclinical symptoms are more likely to appreciate the value of an indicated intervention, but they may also miss symptoms because of the covert nature of anxiety.

Selective prevention

Selective prevention is reliant on the identification of malleable risk factors in order to develop effective strategies for reducing the risk for anxiety in children. In recent decades research on risk factors for anxiety has made considerable progress, leading to the development of theoretical models outlining early risk factors for child anxiety (Hudson & Rapee, 2004; Murray *et al.*, 2009). These models typically include vulnerability factors, especially biological characteristics (genetic, temperamental), information processing styles, and environmental influences that may increase risk of disorder, either alone or in combination with some vulnerability factors, such as life events and learning experiences, including parenting (see e.g. Murray *et al.*, 2009).

Efforts at selective prevention to date have predominantly identified children on the basis of vulnerability factors, specifically parental anxiety, behavioural inhibition and information-processing style. These vulnerability factors will briefly be reviewed in turn, before considering how they have been used as the basis for selective prevention. The presence of parental anxiety disorder is a known risk for childhood anxiety disorder. Children whose parents have anxiety disorders exhibit an increase of anxiety disorders over the base rate themselves (Biederman *et al.*, 1991). Similarly, parents of children with anxiety disorders have a raised rate of anxiety disorders compared with control parents, with the elevation of risk largely confined to mothers (Cooper *et al.*, 2006). The extent to which familial aggregation of anxiety disorders is accounted for by genetic transmission is uncertain, as research has seldom involved samples of children with an actual anxiety disorder, but instead has reported genetic effects on anxiety symptoms or certain endo-phenotypes, such as behavioural inhibition (discussed later). These studies consistently

reveal a genetic influence of moderate magnitude (Gregory & Eley, 2007), but this varies depending on the child's sex, age and the source of information (Eaves *et al.*, 1997; Feigon *et al.*, 2001). What exactly is inherited, therefore, remains uncertain, although it is clear that people do not inherit a particular anxiety disorder, but a general (possibly temperamental) vulnerability, and that the content and extent of any resulting anxiety is likely to be influenced by environmental factors. The temperamental style that has received the most research attention is 'behavioural inhibition' (BI), which is characterised by fearfulness, or reticence when faced with unfamiliar people or situations (Kagan, 1989). Behavioural inhibition tends to remain stable across childhood and adolescence and, where it is stable, predicts the later onset of anxiety disorder (Lahat *et al.*, 2011).

In addition to genetic mechanisms of transmission, high parental anxiety may also pose a risk for the development of child anxiety problems through its influence on parental behaviours. For example, Murray and colleagues recruited mothers during pregnancy to participate in a prospective, longitudinal study. Mothers were selected on the basis of meeting diagnostic criteria for social anxiety disorder, generalised anxiety disorder or having no history of anxiety disorder. Anxious mothers were observed to model more anxious responses, show reduced warmth and encouragement, and increased passivity and withdrawal than non-anxious mothers, when interacting with their children in contexts that elicit maternal fears (Murray *et al.*, 2007, 2008, 2012). Furthermore, maternal behaviours accounted for differences in expressed anxiety between offspring of anxious and non-anxious mothers (Murray *et al.*, 2007, 2008). These findings suggest that targeting parenting behaviours that arise under conditions of stress may be a useful strategy for preventative interventions among offspring of highly anxious parents.

Finally, it has been suggested that vulnerability to the development of anxiety may be reflected in biased information processing, both in terms of attentional bias in relation to threat and biases in interpretation of ambiguous material (Hudson & Rapee, 2004; Rapee, 2001; Rapee & Spence, 2004). Most research on attentional biases in the context of anxiety disorders has been cross-sectional with already anxious youth (see e.g. Hadwin *et al.*, 2006). Tentative support for attentional biases as an early risk factor comes from findings that 10-week-old infants of socially anxious mothers showed a tendency to look away from fearful faces compared with infants of non-anxious mothers and mothers with generalised anxiety disorder (Creswell *et al.*, 2008, 2011). Furthermore, looking patterns to fearful faces predicted anxiety symptoms among infants of socially anxious mothers at 2 years of age (Creswell *et al.*, 2011). These findings require replication, and screening young children on this basis is associated with difficulties in both interpretation and practical considerations (e.g. a considerable proportion of babies become fractious or fall asleep). More standard paradigms (e.g. Dot Probe), however, appear to be able to be reliably administered in children from 5 years of age (Pérez-Edgar *et al.*, 2011). The Dot Probe involves presentation of two stimuli, one threat-related and the other neutral (e.g. words or facial expressions), followed by a target probe (e.g. the letters *F* and *E* or the shapes '.' and ':') in the location previously occupied by one of the stimuli (Bar-Haim, 2010). Participants are required to discriminate as fast as possible between the two variants of the probe while retaining accuracy. The distribution of attention is indicated by response latencies, with faster responses to probes for the attended location relative to the unattended location. Thus an attentional bias towards threat is revealed when children respond faster to probes that replace threat stimuli than neutral stimuli. Further development of paradigms for the assessment of attentional biases in young children, and further evidence of their role as a

vulnerability factor in the development of anxiety disorder is required before attentional biases can be considered a viable means of identifying at-risk children for preventive interventions.

With regards to interpretation biases as a vulnerability factor for childhood anxiety, five prospective studies have found evidence that negative interpretation bias precedes anxiety, at least in the short term, among preschool children (Dodd *et al.*, 2012; Pass *et al.*, 2012; Warren *et al.*, 2000), primary school children (Creswell *et al.*, 2011) and children across the secondary school transition (Creswell & O'Connor, 2011). These findings suggest that a negative interpretation bias may be a useful basis for identifying children at risk of increased anxiety, although this may be limited to the relatively short term. Further evaluation is required to establish if interpretation bias poses a further long-term risk in the context of particular environmental influences. In addition to how children interpret ambiguity, other specific biases have also been associated with childhood anxiety (see e.g. Muris, 2010) but none of these has been evaluated in terms of their role in the development or maintenance of anxiety, so it is premature to consider them as candidates for identifying children likely to benefit from selective interventions.

Each of the vulnerability factors described above has been used as a basis for identifying children at risk of anxiety disorders for preventive interventions, and results have been encouraging. Ginsburg (2009) identified participants by virtue of their having a parent with a current anxiety disorder. The Coping and Promoting Strength programme (CAPS) targets child and parent risk factors and consists of 6–8 weekly sessions and three booster sessions. The first two sessions were conducted with parents alone; subsequent sessions included all interested family members. The child risk factors targeted include anxiety symptoms and social avoidance, anxious cognitions and poor coping and problem-solving skills. The parent risk factors targeted include modelling of anxious behaviours, overprotective parenting and family conflict. Children aged 7–12 were randomly allocated to the CAPS intervention or to waitlist. At 1-year follow-up, 30% of children in the waitlist condition had developed an anxiety disorder compared with none of the children who received CAPS. Parent-report of child anxiety symptoms and clinician-based ratings of anxiety severity significantly decreased at 1-year follow-up for CAPS relative to the waitlist group. These findings indicate that an intervention targeting children at risk due to parental anxiety holds promise for the prevention of anxiety disorders in school-aged children.

Encouraging results have also come from studies which have identified children on the basis of having high BI. Rapee and colleagues (Kennedy *et al.*, 2009; Rapee *et al.*, 2005) used the *Cool Little Kids* programme, a relatively brief (six 90-minute sessions) parent-focused programme which covers parenting skills, cognitive restructuring, graded exposure and the continued application of strategies following treatment. Rapee *et al.* (2005) selected preschool children on the basis of maternal report of BI followed by a further BI screen involving direct laboratory observation of child behaviour during basic medical procedures (e.g. blood pressure cuff), interactions with peers, strangers and an unusual toy. Over 90% of the children classified as BI following this process met criteria for one or more anxiety disorders at baseline. Following screening, 146 families were randomly allocated to either the intervention condition or a monitoring condition. At the 12-month follow-up, children whose parents received the intervention showed a slight but significant reduction in pre-existing anxiety diagnoses relative to the monitoring group. Children in the intervention

condition also showed lower frequency and severity of anxiety disorders at 2- and 3-year post-intervention follow-up assessments, along with fewer anxiety symptoms than children in the monitoring condition (Rapee *et al.*, 2010). This indicates that a relatively brief, parent-focused group selective intervention can be successful in altering the trajectory of anxiety in young children at risk due to BI. However, notably the hypothesised mechanism of change (BI) did not differ for the two conditions, with reductions in inhibition apparent for both groups over time. Indeed, despite the clear link between BI and anxiety disorders, not all children with high levels of inhibition will go on to develop an anxiety disorder. Therefore, the development of anxiety is likely to reflect a complex interplay of risk factors including temperament.

Kennedy *et al.* (2009) therefore conducted a follow-up study in which preschool children were selected on the basis of having the combined risk of high levels of BI and a parent with an anxiety disorder, which they argued would be associated with greater continuity in BI over time, but also meant that children had a much higher level of BI than in their previous study. Furthermore, all children included in the study on the basis of combined risk met criteria for an anxiety disorder at baseline. Seventy-one preschool-aged children were randomly allocated to the *Cool Kids* parent-focused group intervention or waitlist. An additional two sessions, chiefly targeting parent anxiety management, were included given the particularly high-risk status of the sample. At 6-month follow-up, children whose parents completed the intervention showed a greater reduction in the frequency and severity of anxiety disorders compared with those in the waitlist condition. In contrast to their earlier study, children in the intervention condition also showed significant reductions in BI on the basis of both parent report and the laboratory observation, showing increased speech, reduced proximity to their mother and increased interaction with a stranger. The intervention was therefore successful in reducing both anxiety disorders and associated risk (BI) in preschool-aged children.

Finally, one study has identified children for participation in selective intervention on the basis of their having high levels of anxiety sensitivity (Balle & Tortella-Feliu, 2010). Young people aged 11–17 years were randomised to receive the intervention or a waitlist control condition. The intervention comprised six 45-minute sessions, which aimed to provide psychoeducation, and skills in managing emotions and facing fears. There were no group differences in anxiety sensitivity or symptoms of anxiety following the intervention. Furthermore, although the intervention group reported a greater reduction in anxiety sensitivity at the 6-month follow-up, differences in anxiety symptoms between groups were not significant.

The emerging results from selective prevention studies are encouraging in that they indicate considerable potential for successful early intervention to prevent the development of anxiety in at-risk youth. They also stand to make a substantial contribution to our understanding of anxiety in children, for example by demonstrating which factors need to change to prevent the development of disorder. So far, the most robust findings are consistent with evidence on the key vulnerability factors of parental anxiety and behavioural inhibition; further work is required to specify what constitutes risk of disorder in terms of, for example, information processing biases. As such, better understanding of vulnerability factors in the development of anxiety, and in particular their interactive effects, will improve our ability to identify children who are at higher risk for anxiety and, thus, will enable prevention programmes to maximise resources most effectively.

Summary and conclusions

There is broad support for the efficacy of prevention of anxiety in children and adolescents, with success rates similar to preventive interventions for other disorders including depression, substance abuse and eating disorders (Fisak *et al.*, 2011). There have been positive results across the three approaches to prevention (universal, indicated, selective) when compared with waitlist or monitoring conditions, with these improvements often maintained over 6- and 12-month time periods. Future research will reveal whether these gains can be maintained over even longer time periods, and whether preventive effects extend to the prevention of other disorders such as depression. While there has been a notable increase in research into the prevention of anxiety over the last two decades, a great deal remains to be done. The best way to target resources will become more evident as we gather further information about risk factors that predict the onset of anxiety disorders, develop more effective screening strategies and conduct further prevention trials; and, in turn, prevention studies will inform our understanding of how to reduce risk and promote resilience amongst children. The most impressive outcomes to date come from selective interventions; however, these involve extensive screening to identify appropriate participants. It is also important, theoretically, to note that such interventions often involve treatment of already established disorder, and therefore their status as 'preventive' does not always strictly apply according to guidelines set out by the Institute of Medicine Committee on the Prevention of Mental Disorders (Mrazek & Haggerty, 1994). Little is known about the relative cost-effectiveness of universal, indicated and selective prevention approaches and this is a priority for future research.

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Section 7

New developments in cognitive behaviour therapy for children

Using low-intensity treatment methods with families

Cynthia M. Turner and Georgina C. Krebs

Introduction

Over the last 30 years, increasing attention has been paid to developing and validating cognitive behaviour therapies (CBT) for young people and families, and CBT is now the recommended first-line treatment for many childhood mental health disorders. However, despite the expanding evidence base, there has been, and continues to be, a serious barrier in young people accessing CBT. While a number of factors are probably responsible for these access difficulties (e.g. under-detection, misdiagnosis, stigma), a key factor is simply that demand for services far exceeds the availability of therapists and only a small proportion of children in need of treatment receive appropriate help (Farmer *et al.*, 1999). Low-intensity treatment methods have been proposed as a way of improving access to CBT, and it is these methods that will be the focus of this review.

The goal of this chapter is to overview the range of low-intensity CBT methods currently available for children and young people with mental health problems, and where possible, to present information about effectiveness. The chapter begins by considering the context within which low-intensity treatment methods have developed and considers the definition of low-intensity treatment. The range of low-intensity forms of CBT currently available to children, young people and families is reviewed. These include self-help approaches (e.g. bibliotherapy), group-based CBT, telephone CBT and video-conferencing. Examples of interventions for each low-intensity method will be provided, illustrating how they are used for a range of different disorders. The review will exclude computerised CBT methods as these are discussed more fully in [Chapter 23](#) in this volume.

How did low-intensity treatment evolve and how is it defined?

The development of low-intensity CBT methods has a number of key antecedents. First and foremost, the evolution of CBT as a form of psychotherapy combining behavioural and cognitive therapy approaches paved the way for a change in the delivery of mental health care for patients. The principles of the scientist–practitioner model were integral to CBT from the outset, and when the concept of evidence-based medicine became popular in the 1990s, and methods of disseminating research literature to clinicians became more sophisticated and extensive, CBT became increasingly recognised as an effective and efficient therapy for a range of mental health problems. However, as recognition of its efficacy

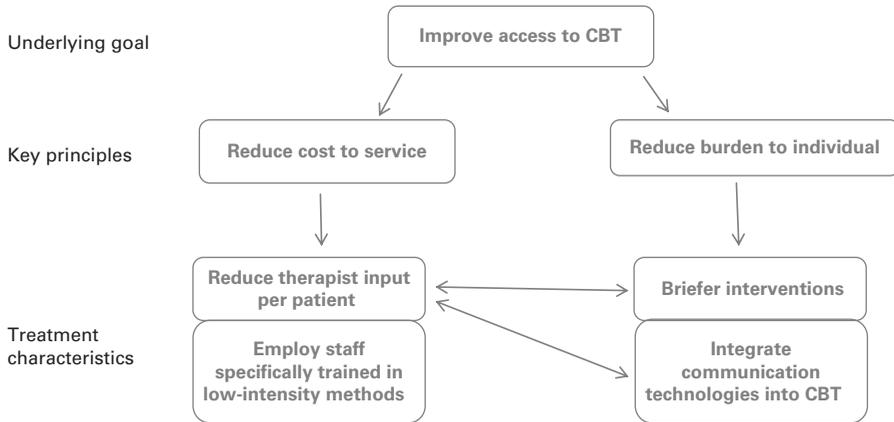


Figure 22.1 Defining low-intensity cognitive behaviour therapy.

increased, there was also a growing recognition of the imbalance between appropriately trained and qualified professionals and patient need.

Figure 22.1 highlights how the need for greater access to CBT resulted in targets being set to: (a) reduce the cost of CBT and thereby enable large-scale rolling out of the treatment; and (b) increase the flexibility of CBT delivery in order to improve accessibility for patients. In this vein, a variety of innovations were introduced such as the development of self-help books, the concept of guided self-help, and the growth of the Internet as a resource for healthcare. Alongside these clinical advances, governments around the world, and in the UK in particular, were progressing an agenda to provide effective healthcare at a more affordable cost. An early example of dissemination of CBT was the setting up of new training programmes for nurses in the 1970s (Marks *et al.*, 1977). More recently the *Improving Access to Psychological Therapies* (IAPT) programme (Layard *et al.*, 2006) in the UK has attempted to train 10 000 psychological therapists in order to provide evidence-based treatment, mainly CBT to individuals with anxiety and depression.

In parallel, stepped-care models have been developed for a variety of mental health problems in an effort to maximise efficiency in the use of (limited) psychological therapy resources (Bower & Gilbody, 2005). Within a stepped-care model, milder and more straightforward health presentations receive a lower intensity intervention, which is likely to involve only brief contact with a non-specialised professional. Interventions then become increasingly intensive and specialised with more severe and complex presentations. ‘Intensity’ of intervention has therefore become a key philosophy underlying stepped care (Bower & Gilbody, 2005), and while there is as yet no existing consensus for how ‘low-intensity CBT’ should be defined, for the purpose of this chapter we will use the following working definition based on Bennett-Levy *et al.* (2010a, 2010b).

Low-intensity CBT is concerned with increasing access by improving cost-effectiveness, reducing geographical barriers, and/or reducing the burden of treatment for patients. Thus, low-intensity CBT, compared with high-intensity CBT, has one or more of the following characteristics: reduced therapist input per patient, integration with new technologies and/or delivery by staff trained specifically in low-intensity therapies.

Low-intensity cognitive behaviour therapy methods

Self-help interventions

How is self-help defined?

Self-help interventions are broadly defined as treatments which can be administered independently or with minimal therapist support. Self-help approaches guide the client or patient towards changes and aim to assist them to develop understanding, skills and coping/change strategies (MacLeod *et al.*, 2009).

Self-help treatments include written materials (hand-outs, books, manuals), audio-tapes, DVDs and computerised therapy (CD-ROM, Internet) (MacLeod *et al.*, 2009). Self-help methods range from pure self-help (PSH) to guided self-help (GSH) with input from a clinician either face-to-face or indirectly via telephone or email. The amount of therapist support offered within GSH can vary considerably. For example, in a study comparing PSH and GSH for binge eating disorder, GSH involved six 30-minute therapy sessions over 10 weeks (Loeb *et al.*, 2000), and in another study evaluating GSH in the treatment of perfectionism, participants received eight 50-minute sessions (Pleva & Wade, 2007).

Mains and Scogin (2003) suggest that cognitive-behavioural interventions lend themselves well to self-help because they can be broken down into straightforward, testable steps. The majority of self-help treatments that have been evaluated are grounded in CBT, although this is also likely to reflect the strong evidence base behind CBT in the treatment of many mental health difficulties. The vast majority of self-help studies have been conducted with adults and a number of reviews suggest that self-help is clinically and cost-effective (e.g. Scogin *et al.*, 1990). There is also increasing evidence (reviewed below) that self-help for children, young people and families is effective. The available studies can broadly be separated into studies that target young people directly, and those that target parents/carers of young people, thus seeking to influence mental health problems in children via a change in parental knowledge/behaviour or by engaging parents as therapists. Examples of each type of intervention follow.

Self-help for adolescents

Very few studies have examined GSH for children and adolescents using written material, although those that have offer promising findings. The most rigorous study, by Schmidt *et al.* (2007), compared GSH with family therapy for adolescents with bulimia nervosa or eating disorder not otherwise specified. Eighty-five participants were randomly assigned to either family therapy or GSH, and the primary outcome was abstinence from vomiting and binge eating. Participants in the GSH condition received a workbook and were offered 10 weekly sessions with a therapist, as well as three monthly follow-up sessions (scheduled one each month for 3 months). In the family therapy condition, participants and close others (e.g. parents or relatives) were offered 13 appointments with a therapist and two individual therapy sessions within a 6-month period. Sessions in both conditions lasted approximately an hour. Contrary to the hypotheses, the GSH led to larger reductions in binge eating and vomiting than the family therapy condition. At 6-month follow-up there was no difference between treatment groups and both groups reported additional and substantial improvements. Guided self-help was more cost effective than family therapy and young people rated the acceptability of the GSH intervention as very high. This study demonstrates the potential for GSH with adolescents, and in comparison to family therapy, GSH had an advantage in terms of acceptability, outcome and treatment cost, demonstrating its utility

within a stepped care model for eating disorders. The broader implication of this study is that GSH may be of value as a low-intensity intervention for use with adolescents.

No other published RCTs for adolescent self-help could be identified, although two promising pilot studies further illustrate the potential. Robinson *et al.* (in press) evaluated self-help in the form of bibliotherapy for young people aged 11–16 years with obsessive-compulsive disorder. Using a case-series design, eight young people were given a CBT self-help book called *Breaking Free from OCD* (Derisley *et al.*, 2007). Participants were asked to read the book over 8 consecutive weeks and received brief telephone calls each week to monitor their adherence and symptom severity. No clinical support or guidance was provided. Results demonstrated a small but significant reduction in OCD symptoms over 8 weeks, and the book was evaluated favourably by the young people who participated. Although clinical remission was not achieved for any participant, the symptom reduction and favourable evaluation paves the way for a GSH evaluation to follow.

In a similar study, Ackerson *et al.* (1998) evaluated the effectiveness of a CBT self-help book (*Feeling Good: The New Mood Therapy*; Burns, 1999) for 22 adolescents with elevated depression symptoms. Young people were given a copy of the book and asked to read it over 4 weeks. Weekly telephone calls monitored the number of pages read and the exercises completed, but did not provide therapeutic support or counselling. After 4 weeks, young people reported statistically and clinically significant reductions in depressive symptoms compared with a no-treatment control group, and gains were maintained at 1-month follow-up.

In combination, these studies suggest that guided self-help for adolescents with mental health problems offers significant potential. This conclusion is supported by a recent systematic review by Ahmead and Bower (2008), who examined the effectiveness of self-help technologies for managing various emotional difficulties in adolescents and young adults (aged 13–25 years). Although few RCTs were included, results from studies of varying methodology indicated a medium effect size for emotional symptoms ($ES = -0.47$), suggesting that this avenue of intervention warrants further investigation, particularly given that young people express very positive attitudes toward self-help methods (Farrand *et al.*, 2006).

Self-help for parents of young people

A significantly larger body of literature has examined self-help for mental health problems in young people using parents as the targeted population group. Rapee *et al.* (2006) suggest that childhood disorders may be particularly amenable to parental bibliotherapy because children live under the care and guidance of a parent or responsible adult, and because self-help for parents can mobilise the parents' motivation for their child to change. Parental bibliotherapy has been evaluated as both GSH and PSH for emotional and disruptive behaviour disorders in young people.

Parent-led self-help for disruptive behaviour disorders

Parent-led interventions have been widely evaluated in the field of disruptive behaviour disorders, and behaviourally based parenting programmes are among the most powerful interventions available for families (Kazdin, 1997), with particular success associated with interventions targeted at children under the age of 9 years (Dishion *et al.*, 1992). Typically, parents are taught to increase positive interactions with children and to reduce coercive and inconsistent parenting practices. Parenting interventions typically

follow a stepped care format which includes parent-focused self-help as a low-intensity intervention for less severe child behaviour problems (Sanders, 1999). For example, within the *Triple P-Positive Parenting Programme*, Level 1 is designed as a universal intervention for all parents and uses widely available media (e.g. newspaper, magazine) to promote awareness of parenting issues. In a study examining a self-directed form of the Triple P programme, 63 families of preschool children at risk of conduct problems were randomly allocated to a self-administered behavioural programme or a waitlist (Markie-Dadds & Sanders, 2006). Mothers in the treatment group reported significantly fewer behavioural problems in their children after completing the intervention compared with the waitlist group, with gains being maintained at 6-month follow-up. A substantial literature now demonstrates that low-intensity methods with parents are effective for young children with low-level disruptive behaviour (see Chapter 20 for a comprehensive review).

Parent-led self-help for childhood anxiety disorders

Rapee *et al.* (2006) randomly allocated anxious children and their parents to a standard therapist-led group treatment, a waitlist control condition, or to a pure self-help bibliotherapy. In the self-help condition, parents were given a copy of a parent guide to helping anxious children (Rapee *et al.*, 2000). This provides psychoeducation about anxiety, and a range of anxiety management skills and ways of introducing them to, and implementing them with, children. In addition, the children were given a workbook including the summaries and worksheets referred to in the parent book and used within the group programme. Parents were asked to work through the materials with their child at their own pace, but within a 3-month timeframe. No further contact by the research team was initiated. After 3 months, 17.8% of children randomised to the bibliotherapy condition were free of any anxiety disorder compared with 5.7% for the waitlist control and 48.9% of the children in the CBT group treatment condition. These results demonstrate that PSH has potential benefits for some families, is superior to waitlist control, and may therefore be a useful component of a stepped care approach to the treatment of child anxiety disorders. However, bibliotherapy was not as effective as the group treatment (48.9% disorder-free). Further research is required, but there is certainly potential for inclusion of PSH in stepped-care models.

Lyneham and Rapee (2006) sought to improve on these outcomes by supplementing parental bibliotherapy in one of three ways: parents were randomised to receive therapist-initiated telephone therapy sessions, therapist-initiated e-mail therapy sessions, or client-initiated contact with a therapist. The telephone condition consisted of nine scheduled telephone calls between a parent and therapist. The e-mail condition consisted of nine scheduled emails from the therapist to the parent and then ad hoc email replies to the answers supplied or questions asked. For the client-initiated condition, parents were given the option to contact the therapist by phone or e-mail as many times as they needed during the intervention phase. All treatment conditions resulted in improvements in children's anxiety symptoms. At post-treatment, telephone sessions produced superior outcomes with 79% of children being disorder free compared with 33% of children in the e-mail condition, and 31% of children in the client-initiated condition. The results suggest that therapist-supplemented bibliotherapy could provide a beneficial and efficacious treatment option for families, and could significantly widen access to effective mental health treatment.

Further support for the efficacy of GSH for childhood anxiety disorders is provided by Creswell *et al.* (2010). They evaluated CBT self-help delivered via a parent, where the parent was given a self-help book and supported by a trained mental health worker who provided up to 5 hours of therapy. Forty-one anxious children were assessed for anxiety severity and interference before and after receiving the parent-led CBT. Parents reported a high level of satisfaction with the intervention and 61% of the children assessed no longer met criteria for their primary anxiety disorder, and 76% were rated as 'much'/'very much' improved.

Group-based cognitive behaviour therapy

Within group CBT a number of young people and/or their parents are provided with an active intervention at the same time and with the same therapist(s), thus offering a resource-efficient means of providing treatment. Group-based therapy may also have various advantages compared with traditional individual therapy, including peer support and learning, and reducing stigma and isolation (Yalom & Leszcz, 2005). These aspects of group therapy may enhance patient experience, acceptability and even efficacy. The last decade in particular has seen increased effort to evaluate group CBT.

Group cognitive behaviour therapy with children and adolescents

Arguably the strongest evidence base for individual CBT with young people is in the treatment of anxiety disorders, and it is perhaps not surprising that group CBT for childhood anxiety has received considerable attention. Silverman *et al.* (1999) conducted an RCT to investigate the efficacy of group CBT compared with a waitlist control for mixed anxiety disorders (primarily generalised anxiety disorder (GAD), overanxious disorder and social phobia) among 6–16-year-olds. Group CBT comprised sessions with 4–8 young people per group and concurrent parent sessions. The treatment group reported significant improvement on all symptom measures, which were not observed in the waitlist group. Within the group CBT condition, 64% of participants were diagnosis-free at post-treatment, compared with 13% in the waitlist group, and gains were maintained through to 12-month follow-up, indicating that group CBT may be an efficacious intervention for anxiety disorders in young people.

However, the critical question is the relative efficacy of group CBT versus individual CBT, and this was examined by Manassis *et al.* (2002) in an RCT conducted with a sample of 8–12-year-olds. Participants were randomly allocated to receive 12 weeks of therapy offered as either group CBT or individual CBT, both incorporating parental involvement. Groups consisted of 6–8 young people, most of whom had a primary diagnosis of GAD, but also included participants with separation anxiety disorder, specific phobia, social phobia and panic disorder. Group and individual CBT were both associated with significant and equivalent reductions in parent- and child-reported anxiety. Improvements in global functioning were greater in the individual CBT group, and exploratory analyses found that children with higher levels of social anxiety reported greater improvement in the individual CBT condition compared with group CBT. This could suggest that social anxiety can be a specific barrier to engagement in group CBT. However, Albano *et al.* (1995) found group CBT for social phobia to be an effective treatment for adolescents, perhaps suggesting that sessions dedicated specifically to social anxiety, as opposed to a range of anxiety symptoms, enhance engagement in this group. These studies demonstrate that group CBT

for childhood anxiety disorders is clinically effective and although cost-effectiveness analyses were not undertaken, therapist time per child would be considerably reduced in the group condition.

Of note, the studies described above have all included parents to some extent in the group CBT programmes. Therefore, an important question is whether parental involvement provides any added benefit to outcomes associated with group CBT. Mendlowitz *et al.* (1999) sought to answer this by comparing a child-only group CBT intervention, a parent-only group CBT intervention, and combined parent and child group CBT intervention in an RCT design. Symptoms of anxiety and depression reduced in all three groups, but only the combined child and parent group was associated with an increase in the children's adaptive coping strategies. Similar results were reported by Bernstein *et al.* (2005), who compared group CBT with group CBT plus concurrent parent training, and found that the combined treatment was superior on parent-completed measures of child anxiety and global improvement. In combination, these findings suggest that group CBT for anxious children may be enhanced by involving parents in treatment.

Many studies of group CBT in anxious youth have excluded children who have primary diagnoses of OCD and post-traumatic stress disorder (PTSD). This may be because these disorders are more phenomenologically distinct, have different postulated aetiologies and/or different treatment protocols. However, trials of group-based treatments for these disorders suggest that group-based interventions for PTSD and OCD are clinically effective (Fischer *et al.*, 1998; Giannopoulou *et al.*, 2006; Thienemann *et al.*, 2001).

Beyond child anxiety disorders, group CBT has been examined in relation to a range of other psychiatric disorders and difficulties including depression (Clarke *et al.*, 1999; Rossello *et al.*, 2008), deliberate self-harm (Wood *et al.*, 2001) and anger problems (McWhirter & Page, 1999) with mixed results. At this stage, it appears that there is more support emerging for group CBT for emotional disorders than disruptive behaviour or externalising disorders. For example, in a study of depressed adolescents, group CBT was as effective as individual CBT in reducing depressive symptoms and improving self-concept, and both were superior to individual and group interpersonal therapy (Rossello *et al.*, 2008). In another study involving adolescent self-harm, group therapy (comprising CBT and dialectical behaviour therapy techniques) was associated with lower rates of repeated self-harm compared with treatment as usual, although no differences were found in terms of depression or global functioning (Wood *et al.*, 2001). McWhirter and Page (1999) examined the efficacy of a CBT-based anger management group and a goal-setting group for 16–19-year-olds, and contrary to their hypothesis, they found a small, negative treatment effect for the anger management group and a small positive treatment effect for the goal-setting group. In another study investigating the effectiveness of group CBT compared with group psychoeducation in the treatment of adolescent substance abuse, both interventions were effective in producing overall reductions in substance abuse. However, young people with comorbid conduct disorder were significantly more likely to drop out of treatment, highlighting a potential difficulty of group formats for individuals with externalising symptoms (Kaminer *et al.*, 2002).

In summary, the emerging literature on group CBT is promising, particularly in the treatment of childhood anxiety disorders. However, further studies are needed to compare the relative efficacy of group CBT versus individual CBT across a broader range of disorders, and to better understand factors that might affect treatment adherence and responsiveness, such as severity of disorder, comorbidity and degree of parental support.

In addition, analyses of the cost-effectiveness of group CBT compared with individual CBT are needed. Of note, the numbers of participants included in therapy groups varies across studies, with some studies (Silverman *et al.*, 1999) reporting as few as three patients per group by the end of treatment, and with two therapists facilitating the child and parent groups in parallel. Thus some group CBT programmes may be more viable as low-intensity approaches than others or if the method is clinically effective, further attention may be needed to maximise the cost-effectiveness of the delivery method.

The evidence base for parent groups

As noted above, a large body of literature indicates the success of parenting programmes for disruptive behaviour disorders, and group-based delivery of parenting programmes have been shown to be effective in both research settings (Webster-Stratton *et al.*, 1989) and in 'the field' (Scott *et al.*, 2001). Furthermore, some studies have demonstrated superiority of group over individual parenting programmes. For example, in an RCT conducted by Cunningham *et al.* (1995), large group-based parenting interventions were associated with lower drop-out rates for certain families (e.g. immigrants, parents for whom English was a second language and parents of children with more severe behavioural problems) compared with individual parent training. The group format was also associated with better parent-reported improvements in child behaviour and superior maintenance of gains at 6-month follow-up. Moreover, parenting groups, based on groups of 18 families, were more than six times as cost-effective as individual programmes (Cunningham *et al.*, 1995).

Following the success of group parenting programmes in research studies, such interventions have been widely accepted in clinical practice and policy, and have been rolled out on a large scale in a number of countries, with governments investing in setting up community-based parenting programmes, such as *Sure Start* in the UK, *Triple-P* in Australia and *Head Start* in the USA. Although parent management training groups are clearly effective overall, it has been noted that not all families respond positively. Approximately 28% of parents drop out of parent management training and these tend to be the parents who stand to benefit most (e.g. those who are socially isolated and/or economically disadvantaged). In a meta-analysis exploring predictors of response to parent management training, Reyno and McGrath (2006) identified a range of factors that predicted outcome, including low socioeconomic status and maternal psychopathology. It may be that these families require more intensive input than group parenting training only. Indeed, in an attempt to improve outcomes, a number of adjuncts have been explored and been demonstrated to enhance treatment including CBT for maternal depression (Sanders & McFarland, 2000), relationship support (Dadds *et al.*, 1987) and child group therapy (Webster-Stratton & Hammond, 1997).

Telephone cognitive behaviour therapy

Telephone CBT refers to the delivery of CBT by telephone. The client and therapist schedule times to talk on the telephone and sessions follow the same format as a face-to-face CBT session in a standard outpatient appointment. Few studies of telephone CBT have been conducted with young people, although results with adults show great potential, with outcomes equivalent to those found in standard face-to-face CBT interventions (Lovell, 2010). Telephone CBT has been used to support family-based interventions for

childhood emotional and disruptive behaviour disorders. In a pilot case series of telephone CBT, Turner *et al.* (2009) evaluated a 16-session manualised intervention for obsessive-compulsive disorder in ten young people aged 13–17 years. Outcome was measured by clinician-evaluation of OCD symptoms before and after treatment. At the end of the intervention, seven of the ten participants were within a subclinical range of impairment, and significant improvements were noted on all supplementary child and parent symptom report measures. Treatment gains were maintained at 12-month follow-up. Participants and their parents reported a high level of satisfaction with the intervention, rating its acceptability very highly, and valuing the convenience, flexibility and accessibility of the telephone intervention. Given the encouraging nature of this pilot study, Turner and colleagues are currently completing an RCT to examine the effectiveness of telephone-based CBT compared with traditional face-to-face CBT. It is hypothesised that the telephone CBT will be equivalent to the traditional face-to-face CBT and that telephone CBT will be more cost-effective than standard CBT.

McGrath *et al.* (2011) reported that telephone CBT was effective when used with parents of children with attention deficit hyperactivity disorder (ADHD), ODD and anxiety disorders. Trained health workers delivered telephone-based interventions to parents, supplemented by practice videos and written materials. Compared with a usual care condition, telephone CBT resulted in more children being free from their primary diagnoses. These results support the use of mental health workers trained in low-intensity telephone CBT to treat children with a wide range of disorders.

Video-conferencing

In video-conferencing interventions, client and therapist are linked through the use of computers with audio-visual communication. The client and therapist are able to see and hear each other through this medium. Two recent studies demonstrate the potential of this approach. Nelson *et al.* (2003) examined video-conferencing CBT for childhood depression in comparison with face-to-face CBT, and both were effective. Storch *et al.* (2011) compared web-camera delivered CBT for young people with OCD to a waitlist control condition. They reported good outcomes obtained for young people in the active treatment condition. Although not reducing therapist time, these studies suggest that videoconferencing is a viable means of providing a therapeutic intervention, thus allowing for additional research to follow.

Conclusions regarding low-intensity cognitive behaviour therapy approaches and future directions

There are several conclusions that can be drawn regarding low-intensity CBT approaches which have been highlighted by the above review. First, the wealth of evidence surrounding the efficacy, effectiveness and cost-effectiveness of parent-based interventions for childhood disruptive behaviour disorders is striking. Only a very brief review was included here as Chapter 7 in this volume is devoted to this topic. However, despite the concept of stepped care and low-intensity CBT being relatively new in healthcare research, the pioneers of parent training programmes seem to be ahead of the field, in terms of the evidence base supporting such an approach, in terms of the novel applications to the delivery of the interventions, and in terms of a commitment to evaluating the effectiveness of different

methods of delivery. Leaders within this field are also at the forefront with regard to achieving widespread dissemination of low-intensity evidence-based parenting practices. These programmes are able to exemplify a cost-effective stepped care approach that integrates public health policy, clinical practice, effectiveness research and workforce training/dissemination.

Secondly, there is an impressive effort underway to develop, implement and evaluate low-intensity methods of CBT delivery for a wide range of childhood mental health disorders. Methods of therapist contact vary, and there is evidence for the effective use of the telephone, e-mail, Internet or web-cam, although to date few studies with children have examined the comparative effectiveness of treatment methods compared with traditional face-to-face CBT. Low-intensity CBT has been delivered by clinicians with a range of training and qualification with evidence that interventions delivered by trained mental health workers, nurses, primary care workers and clinical psychologists may be effective. Treatment delivery has included pure self-help and guided self-help (typically using written materials), and group CBT. Interventions have been offered to young people (and their families) with a range of emotional disorders, mood disorders, self-harm, eating disorders and disruptive behaviour disorders, including ADHD. Typically efficacy and effectiveness studies suggest that low-intensity interventions provided some clinical benefit to the participating families, allowing for the conclusion that low-intensity interventions for children and young people should be further developed and evaluated. The next stage of development should expand the available evidence base using more rigorous, high-quality and adequately powered randomised controlled trials with specific attention to assessing cost-effectiveness as well as effectiveness. An expanding evidence base will also allow for greater clarity over definitions of *low-intensity* and *levels of intensity* encompassed within this.

What is particularly needed is an indication of the optimal 'dose' of therapy for different disorders, different levels of severity and/or chronicity, and different delivery methods. Low-intensity CBT is primarily justified on the basis that it involves reduced therapist time. Therefore an understanding of the balance between the overall costs of low-intensity CBT (in terms of therapist time, level of training, demands on family members) and clinical effectiveness is critical. Bower and Gilbody (2005) highlight that there are essentially four qualitatively different steps in considering intensity of interventions: pure self-help (no therapist input beyond assessment); guided self-help and group therapy (therapist input around 1–2 hours per patient); brief therapy approaches, typically supported by other media (therapist input around 5–6 hours per patient); and traditional CBT approaches (therapist input around 12–16 hours per patient). Greater clarity around which approaches are best suited to which disorders, and at which level of severity, will be helpful for patients, services and policy makers. It is clear that low-intensity CBT approaches are here to stay, and in a socio-political climate that emphasises quality healthcare *and* cost-effectiveness, it is imperative that sufficient weight is given to both these outcomes.

Finally, it is worth reflecting on the patient experience, as low-intensity approaches provide relatively novel therapeutic experiences. Interventions that use self-help technologies and/or media such as telephone or internet delivery may have distinct advantages for young people and families over traditional face-to-face methods of delivery. They can offer convenience and flexibility, they reduce or eliminate the requirement for large amounts of time to be taken out of education and/or employment, they do not involve the patient or family incurring travelling costs, and they can serve to eliminate geographical inequalities

that can adversely affect young people accessing mental health services (Turner *et al.*, 2009). They may also enhance adherence to treatment protocols and regimes, as there is greater privacy and the potential that young people may feel less stigmatised. Self-help has been identified as a medium that allows greater control and that empowers users to take responsibility for their own treatment (Mains & Scogin, 2003). Conversely however, there is the potential for low-intensity approaches to be susceptible to increased levels of patient distractibility and poorer compliance, and particularly within group-based interventions, for there to be one individual dominating, reluctance to disclose personal experiences, and possibly maladaptive learning from peers. It remains important for clinicians and researchers to be cognisant of patient experience and to ensure interventions offered are meeting desired patient outcomes.

Bennett-Levy *et al.* (2010a) describe low-intensity CBT interventions as a revolution in healthcare delivery and the momentum behind this drive to widen access to psychological health is welcome. We have sought to capture the key elements of low-intensity methods in Figure 22.1. The framework provided both summarises where the field is currently, and the review of this work above highlights areas for future development.

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Using new technologies to deliver cognitive behaviour therapy with children and adolescents

Caroline L. Donovan, Susan H. Spence and Sonja March

The rate at which technology is progressing is astounding. It is hard to believe that the first personal computer was developed only 40 years ago. Today we use computers for information, social networking, work, business, recreation, education and shopping. We 'Google' information and 'Facebook' our status. The very first computers were the size of entire rooms and took hours to process information. Now we carry smartphones in our pockets that process information virtually instantaneously and which have infinitely more power and capabilities than the computing founders would have dreamed possible.

Given the way technology has infiltrated our lives, it is no surprise that it is now being used to assist people with mental health issues. There are mental health websites that provide people with information about various psychological problems, and numerous computer-based therapeutic treatments available. Cognitive behaviour therapy (CBT) is particularly amenable to computerisation given its structured nature (Anderson *et al.*, 2004). Although computer-based CBT treatments were initially met with ambivalence and scepticism, the frequency with which they are appearing together with their evidence-base have signalled a shift in delivery methods for psychological treatments.

Today's children and adolescents have been born into this technological era and view computers, smartphones, laptops and computer games as part of the everyday. They navigate easily in this medium and feel comfortable within it. It would seem therefore, that using technology to assist in the psychological treatment of young people has the potential to be particularly beneficial. Intriguingly, it is only relatively recently that it has been used to assist this population in therapy. However, despite its somewhat recent beginnings, there is a burgeoning growth in research into this important area.

This chapter discusses how technology has been used in CBT treatments with young people and the evidence base for it, and makes suggestions for clinicians thinking of using technology in their CBT practice. Finally, to give a flavour for the nature and potential capacity of computer-based CBT, we present a case illustration of how our own online CBT programme for youth anxiety, BRAVE-ONLINE, has assisted a young child with particularly severe anxiety.

Computer-based psychological treatment programmes for young people

Cognitive behaviour therapy is effective in treating children and adolescents presenting with a range of psychological disorders. So, why is there a need for technology-based

interventions? Despite the demonstrated efficacy of CBT with youth, unfortunately most young people with mental health issues do not receive professional help (Merikangas *et al.*, 2010). There are numerous reasons why young people fail to receive help, including confidentiality concerns, stigma and embarrassment about attending a mental health service, and beliefs around not being understood or taken seriously. Lack of knowledge about the appropriateness of particular services, and structural factors such as financial concerns, lack of accessibility of services, and long waiting lists have also been found to present barriers to those who require psychological assistance (Boyd *et al.*, 2007).

The use of technology can circumvent almost all of these barriers. Computer-based programmes can be accessed by families in the privacy of their own homes without the concern of being 'seen' at mental health clinics. Technology-based communication also has a 'disinhibition effect' where, because of perceived anonymity, people tend to self-disclose more (Suler, 2004). Thus, young people may perceive greater confidentiality within a computer-based medium and feel more comfortable disclosing personal information. Not only do the vast majority of youth (at least in developed countries) have access to computers and the Internet, but it has been found that young people, particularly adolescents, use the Internet to seek help and find text-based counselling less confronting than talk-based counselling (Nicholas *et al.*, 2004). Furthermore, most technology-based programmes are constantly available, meaning that they are more accessible, more convenient and people do not generally have to wait to receive treatment. They also have the potential to be delivered, and received, at a relatively low cost if adopted on a wide scale. Thus, technology may be well accepted among young people as a way of seeking help for their emotional concerns, and therefore has the potential to assist in filling a void created by barriers to face-to-face treatment.

It is important to note however, that despite the many benefits associated with computer-based therapy, it is by no means the perfect solution to all difficulties associated with access and uptake of treatment. Despite most youth having access to computers and the Internet, those least likely to have such access are also those most likely to be at risk of a range of mental health problems. That said, such disadvantaged youth are even less likely to have access to high quality face-to-face therapy, and therefore computer-based therapy may reach at least some of those disadvantaged youth who may not have access to clinic-based therapy but who may have access to computers through libraries, schools and other community-based facilities.

Under the overarching 'technology' banner, a number of different approaches have assisted with a variety of childhood psychological afflictions. Before reviewing computer-based programmes and technological adjuncts, it is important to note some features on which the various programmes differ. Important differences lie in the mode of delivery of programmes and the level of therapist involvement they require. The main modes of delivery evident in the child literature to date are either Internet-based, CD-ROM-based, or comprise online chat rooms or discussion-boards, with some programmes integrating more than one of these approaches. Internet-based programmes involve the young person logging in to designated websites and completing sessions online. CD-ROM applications involve the provision to clients of a CD-ROM that presents information and programme content. Chat/discussion forums can be either asynchronous or synchronous. Asynchronous forums can be accessed by a therapist or overseer at any time so that messages/comments can be placed or responded to. Synchronous forums are usually

group-based, and allow several clients to log in at a predetermined time with a therapist present to conduct the session and organise the forum.

Related to differences in delivery mode is the level of therapist engagement offered as part of the intervention. Involvement by the therapist can range from none (e.g. completely self-help programmes) to minimal (e.g. weekly email contact), to substantial (e.g. therapist being present for the entire chat session). As will be evident from the discussion below, the various treatment programmes developed to date vary greatly in this regard, with positives and negatives associated with more versus less therapist involvement that will be discussed later. It is first important to review some of the computer-based treatments that have been investigated thus far in the child and adolescent field, for the purpose of providing an understanding of the breadth and variety of what is available and possible. In this way, the reader may gain some understanding of the programmes that might best suit their particular practice, not only in terms of the disorder being treated, but also in terms of the mode of delivery and level of therapist involvement. The review of programmes below is wide but not exhaustive. Rather, prominent programmes have been chosen and grouped within the particular disorder they are designed to treat, in order to demonstrate the diversity between programmes in terms of characteristics and approach.

Anxiety

Within the anxiety domain, there are examples of Internet-based and CD-ROM programmes that differ with respect to level of therapist involvement. Spence and colleagues (March *et al.*, 2009; Spence *et al.*, 2006, 2011) developed an Internet-based CBT programme called BRAVE-ONLINE for children and adolescents with anxiety disorders. The programme comprises ten youth sessions, six parent sessions and two booster sessions conducted 1 and 3 months after treatment. Each family is allocated a therapist who monitors the family's progress through each session and sends a short weekly email providing encouragement, reinforcement and assistance/redirection when necessary. There is a mid-programme telephone call between therapist and parent to develop the exposure hierarchy that is then worked through by the young person. There have now been three randomised controlled trials (RCTs) (March *et al.*, 2009; Spence *et al.*, 2006, 2011) conducted on the BRAVE-ONLINE programme (with two more underway) that have demonstrated its efficacy. The first RCT, conducted with primary school children, compared a waitlist control group with a group receiving the original clinic version of BRAVE and a condition whereby half of the sessions were completed in the clinic and the other half were completed online (Spence *et al.*, 2006). The results suggested that both treatment groups were superior to the waitlist control group in terms of anxiety and were equally efficacious as each other. The second RCT, also conducted with primary school children, compared a fully online version of BRAVE with a waitlist control group (March *et al.*, 2009). The results indicated that the online programme was efficacious in reducing anxiety in these children, with effect sizes being comparable to those found in clinic-based anxiety studies at follow-up. Finally, the third RCT compared an individual clinic-based version of BRAVE for Teenagers with a fully online version and a waitlist control (Spence *et al.*, 2011). Results indicated that both treatment groups were superior to the waitlist control group and, most importantly, were equally efficacious as each other (Spence *et al.*, 2011). Details of the BRAVE programme will be provided below in the case study.

Using a different approach, Khanna and Kendall (2010) developed a CD-ROM programme, Camp Cope-A-Lot, for children aged 7–13 years with anxiety. It consists of 12 sessions, the first six of which are entirely self-help (unassisted) whilst the remaining six sessions focus on exposure and require the assistance of a therapist. The therapist is guided by a manual and is responsible for monitoring patient symptoms, facilitating the completion of exposure-based tasks, and providing reinforcement and support as required. In an RCT testing the efficacy of the programme, it was shown to be as efficacious as clinic-based, individual CBT, with both the online programme and individual CBT demonstrating significant superiority over an attention comparison condition (Khanna & Kendall, 2010).

Also using a CD-ROM delivery mode and therapist assistance is Cunningham *et al.*'s (2009) Cool Teens CD-ROM for adolescent anxiety disorders. The programme comprises eight sessions with no limit to the order or speed with which teenagers can progress and, in the uncontrolled case-series test of the programme, regular telephone contact with a therapist. In that study, four of the five participants completed at least six of the eight modules and two were free from at least one anxiety disorder upon completion. Those same two participants were free of any anxiety disorder diagnosis at follow-up, suggesting some long-term effectiveness. A subsequent RCT comparing the Cool Teens Programme with a waitlist control group, demonstrated significantly greater reductions in anxiety diagnoses and symptoms for the Cool Teens condition compared with the waitlist condition (Wuthrich *et al.*, 2012).

Using a self-help approach with no therapist intervention, Cox *et al.* (2010) investigated the usefulness of a web-based early information intervention for children aged 7–16 years who had sustained an unintentional injury. The intervention consisted of a parent pamphlet and an information-based, self-help website for children incorporating strategies such as relaxation, coping statements, problem-solving, identification of personal strengths and reflection on the event. There were no directions around how the programme was to be used, with young people able to access and complete whichever modules they wished. Over a 6-month follow-up period, there was a significant difference over time between the intervention group and the no-intervention control group with respect to anxiety. Whilst the intervention children reduced in anxiety over time, the no-intervention children worsened.

It would seem from the above discussion that, for youth anxiety disorders, computer-based programmes employing various delivery modes and levels of therapist involvement are useful. Although an emerging field of research, the findings for computer-based CBT within this area are encouraging.

Depression

Within the youth depression literature, perhaps the most well-known internet-based programme is MoodGYM (O'Kearney *et al.*, 2009). MoodGYM comprises five sessions and is entirely self-help with no therapist involvement. The programme has been extensively tested with adults, and has also now been evaluated with adolescents. MoodGYM has been shown to be effective in reducing adolescent depressive symptoms compared with a waitlist control group (Calear *et al.*, 2009), a standard personal development class condition (O'Kearney *et al.*, 2006), and a usual curriculum condition (O'Kearney *et al.*,

2009). In a study comparing MoodGYM alone, face-to-face therapy alone, face-to-face therapy + MoodGYM and a control group, Sethi *et al.* (2010) found that MoodGYM was not as effective as face-to-face CBT in reducing depressive symptoms or negative automatic thoughts. It was also found that face-to-face therapy + MoodGYM was better than MoodGYM alone in reducing anxiety, depression, distress and frequency of negative automatic thoughts. Furthermore, face-to-face therapy + MoodGYM was more effective in reducing anxiety and frequency of negative automatic thoughts compared with face-to-face therapy. It seems that combining face-to-face therapy and computerised therapy might be particularly useful when targeting anxiety and negative automatic thoughts in young people.

Van Voorhees *et al.* (2005, 2008, 2009) developed an Internet-based, self-help programme for adolescent depression. The CATCH-IT programme involves 14 Internet-based sessions using strategies derived from CBT, interpersonal psychotherapy and behavioural activation as well as community resiliency concepts. Aimed at youth aged 14–21 years, CATCH-IT was designed for use within a primary care situation whereby a physician initiates use of the programme (Van Voorhees *et al.*, 2005, 2008, 2009). A small initial uncontrolled pilot test of the programme suggested favourable trends (but not statistically significant results) in the reduction of depressive symptoms following treatment. A subsequent study comparing brief physician advice plus the Internet programme with a condition involving motivational interviewing plus the Internet programme suggested that both conditions were equally successful in reducing depressive symptoms, but that the condition involving motivational interviewing demonstrated a significantly greater reduction in hopelessness and suicidal ideation (Van Voorhees *et al.*, 2009).

CD-ROM and discussion forum delivery modes have also been investigated with respect to the computer-based treatment of adolescent depression. Stressbusters (Abeles *et al.*, 2009), for example, is a self-help CD-ROM programme comprising eight CBT sessions for children aged 12–16 years. In an uncontrolled case series of 23 participants, it was found that the percentage of young people who met diagnostic criteria for depression was reduced after programme completion. Similarly, in an uncontrolled study using a discussion-based therapeutic approach, Gerrits *et al.* (2007) found that ‘Master Your Mood Online’ was effective in reducing depressive symptoms. The programme involved eight 1.5-hour chat sessions whereby small groups of teenagers logged in to the chat room at a particular time each week. The sessions were led by a mental health professional who also sent text messages and emails regarding homework tasks.

The variety of approaches used in the computer-based treatment of adolescent depression points to the creativity and potential for technology in this important area. Depression is a highly prevalent disorder associated with a vast array of deleterious consequences. What appears to be lacking in the area of computer-based depression treatment, is the inclusion of studies investigating the efficacy of therapist-mediated programmes. Given the seriousness and prevalence of youth depression, there would seem to be a further need for research in this area to determine whether providing therapist mediation might improve treatment response even more.

The potential for computer-based therapy to reach this group of young people is particularly exciting, and it is hoped that researchers will continue to work towards increasing uptake of, and compliance with, these programmes.

Substance use

Within the substance-use domain, a number of innovative programmes have been developed. Schinke and colleagues have produced various self-help programmes, most of which can be used in CD-ROM or Internet forms, for different substance-use issues in adolescents. Although not CBT-based, the programmes are presented here as examples of how technology has been used to treat young people. The programmes are based on family interaction theory and target the relationship between adolescent girls and their mothers. They vary in terms of content, substance focus and the target population. For example, Schinke *et al.* (2011) investigated the usefulness of a ten-session programme completed at the rate of one session per week, that was aimed at preventing substance use amongst black and Hispanic adolescent girls. The results of the RCT suggested that in comparison to girls in the no-intervention control condition, girls receiving the programme were less depressed, reported higher self-efficacy in their ability to refuse cigarettes, alcohol and drugs, reported lower alcohol use, and reported lower expectations that they would use tobacco, alcohol or prescription drugs. Similarly impressive findings by this research team have been found through a series of RCTs comparing the treatment programme with no-intervention control groups. The programmes tested have been found to prevent substance use among girls aged 10–14 years (Fang *et al.*, 2010), prevent alcohol use among late adolescent urban youth (Schwinn & Schinke, 2010), reduce underage drinking among adolescent girls (Schinke *et al.*, 2009a) and prevent substance use among 11–13-year-old girls (Schinke *et al.*, 2009b).

Schwinn *et al.* (2010) have also produced the RealTeen programme, an Internet-based, 12-session programme incorporating general personal and social skills, drug-use information and drug-refusal skills amongst adolescent girls. This innovative self-help programme incorporates blogs, pen pals and a private diary, in addition to the programme. Although an RCT demonstrated no significant differences between the intervention and no-intervention group at post-treatment with respect to drug use, at 6-month follow-up girls in the treatment group reported less 30-day marijuana use, poly drug use and total substance use, compared with the no-intervention control group. Finally, Williams *et al.* (2005) trialled LifeSkills Training, a self-help CD-ROM programme comprising ten sessions aimed at preventing drug use in 12–13-year-olds by teaching social skills, personal self-management and drug-resistance skills. The results of the RCT suggested that compared with the waitlist control group, teenagers in the treatment group reported lower pro-drug attitudes, better normative expectations for peer and adult substance use and better anxiety reduction skills.

Interestingly, all of the computerised therapy programmes in the substance-use area reviewed above are self-help. Yet, despite the lack of therapist monitoring and assistance, they have produced positive results. Self-help programmes have the potential for wide distribution and cost-effectiveness. Given the serious implications of substance use, these prevention and early intervention programmes are particularly exciting and offer great promise as a means by which to reach youth and intercept the potentially devastating trajectories associated with substance use.

Pain

Within the pain area, Internet-based and CD-ROM-based delivery modes have been used, with varying levels and types of therapist support. Palermo *et al.* (2009) developed

a nine-session, Internet-based CBT programme called Web-MAP: Web-based Management of Adolescent Pain for 11–17-year-olds suffering with headache, abdominal pain and/or musculoskeletal pain. The programme comprises nine youth and parent sessions with an online therapist reviewing homework, encouraging practice and assisting with overcoming barriers to therapy. In the RCT conducted, it was found that compared with the waitlist control group, youth in the treatment group showed a greater reduction in activity limitations and pain intensity at post-treatment, a finding which was maintained at 3-month follow-up. Furthermore, the pain of young people in the treatment group improved at a faster rate than that of children in the waitlist control group.

Similar results were found by Connelly *et al.* (2006) who developed Headstrong, a four-session, CBT-based CD-ROM programme for children aged 7–12 years with headache where therapist assistance was provided via a weekly telephone call. Results of the small RCT suggested that children in the treatment programme demonstrated a significantly greater reduction in pain compared with those in the waitlist group at follow-up. Equally efficacious results have been found by Hicks *et al.* (2006) using an Internet-based CBT approach for recurrent abdominal pain and/or headache in 6–16-year-olds. The programme comprises an online manual with seven chapters for young people and two chapters for parents. A relaxation tape and thought journal are provided, and young people are assigned skills each week that are discussed in an email or telephone call with a therapist. Results of the small RCT suggested that there was greater clinically significant improvement in the treatment group compared with the standard medical care control group at follow-up.

The programmes reviewed above in the pain area are therapist assisted and have been shown to be effective in reducing various types of pain in young people. Such programmes could potentially be prescribed by general practitioners and hospital staff, who are likely to be the first point of contact for people suffering with pain. It will be interesting to see whether in the future, entirely self-help programmes will be developed in this area, as they would be particularly beneficial in this health-based context.

Eating disorder symptoms and body image problems

Within the disordered eating/body image realm, a number of innovative and efficacious computer-based programmes have been developed. Heinicke *et al.* (2007) developed the CBT-based My Body, My Life: Body Image Programme for adolescent girls aged 12–18 years. The programme is discussion-forum based, with the six weekly 90-minute small-group chat room sessions facilitated by a therapist. In the RCT comparing the treatment programme with a waitlist control, it was found that the intervention produced clinically significant changes in body dissatisfaction, disordered eating and depression at post-assessment and follow-up (Heinicke *et al.*, 2007).

Using a number of different modes of delivery within the one programme, Jones *et al.* (2008) developed StudentBodies2BED aimed at reducing binge eating and overweight in adolescents. The 16-session CBT-based programme included psychoeducation, interactive components for self-monitoring diet, exercise and thoughts, an asynchronous discussion group and a handbook for parents. Weekly letters focusing on reinforcement, encouragement and motivational messages were also mailed to participants. In an RCT comparing

the programme with a waitlist control group, it was found that StudentBodies2BED was successful in reducing BMI, binge eating and weight and shape concerns.

Also using a combination of delivery modes, Pretorius *et al.* (2009) developed and empirically tested their Overcoming Bulimia Online programme. The programme comprises eight 30–40-minute interactive multimedia web-based CBT sessions that are accompanied by a workbook, homework and an ‘Anxiety Control Training’ audio session. Additionally, a message board provides peer support and participants have an online therapist who provides email support and advice. In an uncontrolled effectiveness study, the authors found significant reductions in eating disorder symptoms and service contacts from pre-treatment to post-treatment that were maintained at 6-month follow-up.

Within the disordered eating/body image area in particular, programme developers have attempted to combine a number of technological delivery modes to produce innovative and engaging programmes for youth. It will be interesting to see, as programmes of this integrative nature are developed and assessed, whether it will be possible to determine which modes of delivery are most useful to youth with particular disorders and/or characteristics.

Comments for clinicians

From the above discussion, it is evident that there are a number of efficacious computer-based CBT interventions for a variety of youth psychological afflictions. The programmes vary in mode of delivery (Internet, CD-ROM or discussion forum) and level of therapist involvement. Potentially, these programmes can have enormous impact through public health systems, but to do so, they require uptake by government health departments. Internet- and CD-ROM-based programmes require much less (if any) therapist involvement, and, if effective, are time and cost efficient, and more accessible and convenient. There is also the potential to use these programmes in a stepped-care approach. Van der Leeden *et al.* (2011) has found evidence for the efficacy of a face-to-face stepped-care approach for child anxiety disorders whereby programmes with minimal face-to-face therapist involvement can be implemented as a first step in care that can be followed by more intensive face-to-face therapy if required. Similar opportunities exist for online therapy, whereby an online programme could comprise the first step in care, to be followed by a face-to-face intervention if deemed necessary.

It is likely that computerised therapy programmes will become more available to clinicians as time passes. Although computer-based therapy for youth is in its infancy, it is progressing at an energetic pace and demonstrating efficacy in many areas. There will be obstacles to overcome even when these programmes become available to clinicians. How long will it take for public and private health funds to recognise the benefits of computer-based therapy as an efficacious treatment modality and provide the rebates and payments offered for face-to-face therapy? Will therapists require specialised training to deliver these programmes effectively? If available to private psychologists, how expensive will these programmes be and how will they be made available? These and other challenges must be overcome before computer-based programmes are commonplace.

If and when these programmes become available to clinicians in the public or private sectors, there are a number of characteristics to be considered when deciding on the type of programme that might be most useful. Internet-based programmes have the advantage that data entered in by clients is accessible to the therapist. Through monitoring, a therapist can

ascertain how well a client is progressing through the programme and completing homework, and can provide e-mail or telephone assistance as required. The speed with which clients can progress through sessions can also be dictated by the therapist, so that clients do not skip sessions or rush through the programme without having time to process the content adequately.

Another consideration for clinician uptake of technology-based programmes is the mode of delivery. That the client must have Internet access is a disadvantage of online delivery, as is the myriad of potential technological problems such as slow Internet speed and server problems that may hinder a client's progress through the programme. Not requiring Internet access, CD-ROM-based programmes have a number of advantages. They may be more accessible to families unable to access the internet, they have potentially fewer technological problems and they allow easier video and audio streaming. One of the downsides of CD-ROM applications is that they still rely on computer access, and it is more difficult for therapists to monitor the client's progress as they rely on clients sending or uploading information to the therapist. Clients may also skip sessions, complete sessions in any order, or rush through the programme, thus rendering the programme potentially less effective than it could be.

Whilst Internet-based and CD-ROM-based computerised therapies are similar in many respects, chat- or discussion-based programmes are quite different. Chat- or discussion forum-based programmes allow for group therapy to occur online and thus have more potential (albeit virtual) for peer-based interaction and support. Although no more time and cost-efficient than group-based face-to-face therapy, they are likely to be much less confronting and much more accessible, particularly for clients in rural and remote areas, or where psychological expertise is sparse. Furthermore, the therapist is potentially able to monitor progress more carefully, accurately and quickly than through either Internet-based or CD-ROM-based applications as the communication occurs in real time. The use of such forums, however, requires careful monitoring and moderating to avoid the risks (e.g. sharing of unmonitored inappropriate personal information and message content that may be inappropriate, offensive or unsolicited) inherent in such media.

There is also the potential to use a mixed mode of delivery for therapeutic programmes. For example, clinic visits could be supplemented with online therapy, and online therapy could take many forms. Video-clips demonstrating certain skills could be incorporated into online programmes, and chat rooms, Facebook groups and YouTube could potentially be used as vehicles to deliver therapy. Video-conferencing could also be used to bring young people together for group-based therapy aimed at a number of childhood disorders. Virtual Reality therapy is another area of enormous potential. The creation of virtual environments has allowed the production of simulations to target a variety of anxiety disorders such as specific phobia, social phobia, panic disorder and agoraphobia (Wiederhold & Wiederhold, 2005).

Two other issues require mention. First, as with face-to-face therapy, confidentiality is of utmost importance. Online therapists must ensure that appropriate firewalls, passwords and safe electronic storage of client data are maintained at all times. Second, compliance and rate of progression through computer-based therapy are also important issues as both tend to be lower than face-to-face therapy (March *et al.*, 2009). These problems are most relevant to Internet-based and CD-ROM-based programmes where completion and progression through sessions is often at the discretion of the young person. Without a set appointment time, motivation and self-discipline is required to ensure that sessions are

completed on schedule. This difficulty can be compounded for programmes that have no therapist involvement, as completion and progress are not monitored or encouraged. A potentially useful inclusion to computer-based programmes may be the use of incentives for therapy compliance. Although not, to our knowledge, tested with clinical samples, Fridrici and Lohaus (2009) investigated the usefulness of incentives with eighth graders participating in an Internet-based stress-prevention programme. Those who were told they were in the draw for a raffle were more likely to be retained, reported higher acceptance rates and reported greater programme effectiveness. Although the use of incentives clearly requires more research, this study provides preliminary support for their potential usefulness.

In summary, there are positives and negatives associated with each mode of computer-based programme delivery. Clinicians need to assess the characteristics of particular programmes to determine the fit between their clinical practice requirements and what the particular programmes offer. Clinicians do seem to be embracing the idea of computer-based therapy. Clinicians have been found to be cautious but positive about computer-based therapy with young people, thinking it best for preventive purposes and for low- to moderate-severity psychological issues, and being less positive about programmes that do not require any therapist assistance (Stallard *et al.*, 2010). Given that more computer-based programmes and evidence for these programmes are likely to emerge, the generally positive view by clinicians may ensure better uptake.

Technological adjuncts for CBT programmes

The discussion above has centred on CBT treatment programmes delivered entirely through technological media. However, there are many and varied ways technology has been used to *augment* clinic-based treatment. Some authors have developed computer games or programs to increase therapeutic engagement. For example, quite early on, Clarke and Schoech (1995) used a computer game similar to Dungeons and Dragons Adventure where there were a series of levels and rooms, the completion of which required problem-solving skills, impulse control techniques and other behavioural strategies. The purpose of the game was to engage teenagers in therapy, to discuss the therapeutic techniques learned during face-to-face therapy. The authors provided a brief descriptive report on its use with four teenagers who were said to respond positively to the inclusion of the game.

Informational websites and CD-ROMs are another way technology can be used to assist in therapy. These technologies have been used in many areas within health psychology for young people, such as for those who smoke (Mermelstein & Turner, 2006), have cystic fibrosis (Davis *et al.*, 2004), leukaemia (Dragone *et al.*, 2002) or chronic constipation (Ritterband *et al.*, 2005). The information provided is up-to-date, interesting and interactive and maximises the attention and interest of young people.

Chat rooms and discussion forums that are not designed to deliver therapy *per se*, but exist for support and self-expression, have also been developed. Although not specifically tested as an adjunct to therapy, they certainly have the potential to be so. For instance, support-based discussion forums have been developed for children coping with parental cancer (Giesbers *et al.*, 2010) and young people with depression (DeMaso *et al.*, 2006). Compared with face-to-face support groups, such online support groups are more accessible and perhaps more attractive to young people. They may also provide a useful addition to the help received from the young person's therapist.

Technology has also been used as a direct therapeutic adjunct to teach particular skills within a face-to-face therapy context. For example, in a very creative study, Beaumont and Sofronoff (2008) developed The Junior Detective Training Programme for children with Asperger syndrome. The programme includes clinic-based group social skills training, parent training, teacher handouts and a computer game which assists children to develop emotion recognition, emotion regulation and social skills. Set in 2030, the main character is a secret agent who specialises in ‘controlled remote viewing’ (or the decoding of thoughts and feelings). Results of the RCT suggested that children receiving the treatment programme demonstrated greater improvement in social skills and emotional understanding compared with those in the waitlist group (Beaumont & Sofronoff, 2008), demonstrating the usefulness of augmenting an essentially clinic-based programme with technology to heighten child engagement and assist in skills teaching.

Also in the autistic spectrum area, Silver and Oakes (2001) conducted ten half-hour computer-based sessions over 2 weeks with 12–18-year-olds with autism or Asperger syndrome. The computer-based programme focused on emotional recognition and prediction, and was shown in the small RCT to be effective in improving these skills compared with a no-intervention control group. Although designed to be only a component of therapy, the programme illustrates the usefulness of this medium in a population often found to engage particularly well with it.

Yet another technological adjunct that we are likely to see increasingly incorporated into therapy is the mobile phone. Mobile smartphones have been investigated as a potential tool in therapy with young people, particularly with respect to the monitoring of mood and/or behaviour. For instance, Shapiro *et al.* (2010) used text messaging in their 12-session group CBT programme for adolescent bulimia nervosa. Participants were required to send a nightly text message to their therapist about the number of binge eating and purging episodes they had engaged in, as well as ratings of their urges to binge and purge. The participants received an automatic return text message with feedback. The uncontrolled study suggested that the programme produced significant benefits, and the use of mobile monitoring was well received by participants.

Other studies have also investigated the use of mood and behaviour monitoring using mobile phones with non-clinical samples. For instance, Matthews *et al.* (2008) investigated the usefulness of mobile phones in monitoring adolescent mood and found that compliance with therapy tasks was much higher amongst youth using mobile phones rather than traditional paper and pencil to chart their mood. In a study conducted to assess whether text messages might assist in encouraging youth to engage in more physical activity, Sirriyeh *et al.* (2010) showed that for young people who were initially inactive, the use of text messages targeting affective beliefs (e.g. exercise makes you feel happy) increased their activity levels significantly more than instrumental messages (e.g. exercise can assist you to maintain a healthy weight) or when both messages were combined. Continued research investigating the usefulness of text messages in therapy and specific message content is clearly required. Mobile phones have the potential to be very useful as adjuncts to therapy given their popularity amongst youth.

Comments for clinicians

The above discussion highlights the ways in which technology has the potential to augment face-to-face therapy. Whether it be to engage youth in therapy, teach them specific skills,

provide information or monitor thoughts, feelings and/or behaviour, the use of technology may well be beneficial. Unlike the fully computerised psychological programmes that have been developed, the potential for mental health professionals to use technology as an adjunct to therapy to engage, inform and assist youth, is immediate and endless. Software will become more available for monitoring via mobile phones and email can be used by virtually any clinician. Young people born into the technological era are particularly likely to embrace and enjoy these adjuncts, and clinicians should keep abreast of the exciting opportunities to deliver CBT creatively.

Case illustration of BRAVE-ONLINE

As an example of the potential efficacy of a computer-based therapeutic approach, we present Emily, a 4-year-old girl with severe anxiety, who was treated using the BRAVE-ONLINE programme. BRAVE is an Internet-based CBT programme for anxiety disorders in children and adolescents that has demonstrated efficacy with both populations. The programme has been described in detail elsewhere (Spence *et al.*, 2008) and so only a brief overview is given here. BRAVE comprises ten core child and six core parent sessions, with a version for children aged 7–12 years and a version for adolescents aged 13–17 years. Child and parent responses are recorded in the back end of the programme and are accessible to the online therapist. The therapist reviews the family's responses each week and sends a short email providing encouragement, reinforcement and assistance where required. There is also a mid-programme telephone call between the therapist and parent to assist in construction of the BRAVE Ladder (exposure hierarchy).

BRAVE is an acronym for the CBT strategies delivered in the programme. B stands for Body Signs, and refers to the detection of physiological reactions to anxiety. R stands for Relax where different relaxation strategies are taught and a relaxation CD is provided to the young person. A stands for Activate Helpful Thoughts and comprises the skills of thought detection, cognitive restructuring and coping statements. V stands for Victory Over Your Fears and incorporates both graded exposure and problem-solving. Finally, E stands for Enjoy! Reward Yourself and refers to self and parent reinforcement of full and partial success of brave rather than anxious behaviours.

Case illustrations of BRAVE-ONLINE involving primary school children and secondary school adolescents have been provided in Spence *et al.* (2008) and demonstrate the success of online therapy with such age groups. However, because preschool children can also have clinical level anxiety disorders, it has been of recent interest to us to determine whether BRAVE-ONLINE can also be used to alleviate anxiety in younger children. Given that 4-year-olds are not able to work online by themselves, this case reports the use of BRAVE-ONLINE parent sessions which were accompanied by a booklet containing age-appropriate examples and details for each session. Previously, the parent programme had only been used in conjunction with the child programme for older children. We had not yet tested the usefulness of the parent-only version of BRAVE-ONLINE for any age group, and the parent programme was initially designed with older children in mind. However, the content of the parent sessions is also highly applicable to younger children. [Table 23.1](#) provides an overview of the parent sessions and [Figure 23.1](#) shows a screenshot from the programme. At the time of publication, the results of the randomised controlled trial for younger children are pending. However, we present here a case study of a young girl with selective mutism to illustrate the usefulness of a parent-only version of BRAVE-ONLINE.

Table 23.1 Session-by-session overview of BRAVE-ONLINE parent programme.

Session 1	What is anxiety? Why children develop anxiety problems and learning influences
Session 2	Managing your child’s anxiety Parent coping strategies Ignoring fearful behaviours Praising BRAVE behaviours
Session 3	Anxious body signs and relaxation
Session 4	Activate helpful thoughts Understanding thoughts and feelings Being a thought detective
Session 5	Victory over fears Understanding avoidance Having victory over fears Exposure using the BRAVE ladder Rewards
Session 6	Problem solving and planning for the future
Booster 1	Programme review Choosing BRAVE strategies, relaxation
Booster 2	Being BRAVE, problem-solving, rewards, BRAVE plans

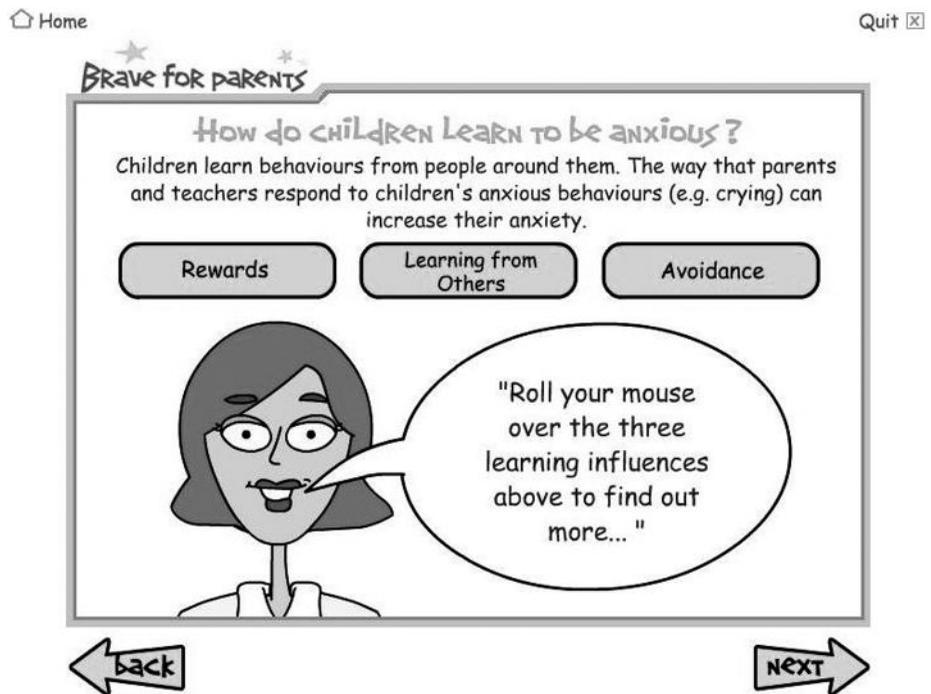


Figure 23.1 Screenshot from the BRAVE-ONLINE parent programme.

Presenting problem

Emily's mother contacted the BRAVE team with concerns about her child's anxiety. Emily lived with both biological parents (Mary, 38 years and John, 46 years) and two older siblings. Although talkative at home, Mary reported that Emily rarely spoke outside the home, refused to speak to others who might try to engage her in conversation, and had only one friend. Mary reported that Emily would not ask questions or for help at her preschool playgroup, and would not be involved with show-and-tell. She also refused to play in a group, be involved in sport, talk on the phone or speak to non-family members. Additionally, Mary suggested that Emily had some separation concerns as Emily was tearful upon separation every day at playgroup, and was never left with friends or relatives due to the extreme anxiety reaction it provoked. Mary also reported having to stay with Emily in order for her to sleep, needing to get in the pool with Emily at swimming lessons, and assisting in all lessons at gymnastics so that Emily would participate.

Assessment

Table 23.2 provides a summary of Emily's scores on each measure at pre-treatment, post-treatment and 6-month follow-up. Emily's diagnostic status was assessed using the Anxiety Disorders Interview Schedule – Parent version (ADIS-P) (Silverman & Nelles, 1988). Administered over the telephone, each diagnosis was given a clinical severity rating (CSR) from 0 (absent) to 8 (very disabling or disturbing) by the administering clinician, where a CSR of 4 and above suggested a clinical level of anxiety disorder. From the ADIS-P it was evident that, prior to treatment, Emily met DSM-IV diagnostic criteria for selective mutism (CSR = 8), social phobia (CSR = 8) and separation anxiety (CSR = 4).

Following the ADIS-P interview, the clinician ranked Emily's level of functioning using the Children's Global Assessment Scale (CGAS) (Shaffer *et al.*, 1983). The CGAS provides a measure of overall functioning on a scale of 0–100, with higher scores indicative of higher functioning. As is evident from Table 23.2, Emily's CGAS rating was 49, placing her in the moderately disabled range.

Finally, Mary completed the Preschool Anxiety Scale (PAS; Spence & Rapee, 1999). The PAS is a 28-item scale requiring parents to rate how true each item is for their child on a 5-point scale from 0 (not at all true) to 5 (very often true). A total score on the PAS can be derived from the addition of all 28 scale items, and six subscale scores can be computed assessing generalised anxiety, social anxiety, obsessive-compulsive disorder, physical injury fears and separation anxiety. Consistent with the ADIS-P interview, Emily was found to be in the clinical range for Social Phobia and Separation Anxiety prior to treatment (see Table 23.2).

Progression through therapy

Mary's therapist was a clinical psychology PhD student who followed the family's progress through therapy. Mary completed all six core sessions on time and provided very thoughtful and detailed answers to questions throughout the programme. She also completed all homework and she and Emily's father John constructed an excellent hierarchy which required only minor tweaking by the therapist (see Table 23.3). John was also involved in the therapy, providing support for the implementation of the strategies and participating in Emily's rewards, such as a family picnic.

Mary was slower to complete the booster sessions, completing Booster 1 approximately 2 weeks late and Booster 2 approximately 5 months late. Mary reported that Booster 2 was late because the family had been on an extended holiday with no Internet access.

Table 23.2 Emily's scores on each of the outcome measures.

	Pre-treatment	Post-treatment	6-month follow-up
CSR			
Selective mutism	8	0	0
Social phobia	8	4	0
Separation anxiety	4	0	0
CGAS	49	61	88
PAS			
Total score	54 (clinical range)	35 (elevated)	15 (normal)
GAD	5 (normal)	1 (normal)	0 (normal)
Social phobia	21 (clinical)	20 (clinical)	9 (normal)
OCD	3 (normal)	0 (normal)	0 (normal)
Physical injury	13 (elevated)	6 (normal)	3 (normal)
Fears			
Separation anxiety	12 (clinical)	8 (subclinical)	3 (normal)

CSR, clinician severity rating; CGAS, Global Assessment Scale for Children; PAS, Preschool Anxiety Scale; GAD, generalised anxiety disorder; OCD, obsessive-compulsive disorder.

Therapeutic outcome

As is evident from [Table 23.2](#), Emily's anxiety was reduced following online therapy. At post-treatment, Emily was no longer selectively mute and had lost her separation anxiety diagnosis. The CSR of her social phobia diagnosis had reduced from eight to four by post-treatment. On the PAS, Emily's total score had reduced from the clinical range to the elevated range, and her separation anxiety subscale score had reduced from the clinical to non-clinical range. Her social phobia subscale score however, remained in the clinical range, although her CGAS score had improved from moderately disabling to slightly disabling. By 6-month follow-up, Emily did not meet diagnostic criteria for any anxiety disorder, all PAS scores had dropped to within normal ranges, and her CGAS rating was also in the normal range. Mary reported high levels of satisfaction with the programme, writing the following e-mail to the online therapist at the 6-month follow-up point:

Thank you so much for the feedback and for selecting us for the programme. It has been a wonderful success for Emily and we are very grateful to you all for that. She has blossomed so much that we almost forget where she started. I looked back over my earlier notes the other day and was shocked when reminded of where Emily used to be. It is so wonderful for us to watch Emily now – she is so confident at Kindergarten she has quite a large following of admirers! We cannot thank you enough.

It should be noted that Mary was the model client. She was motivated, engaged and compliant. Not all participants are responding this well to the programme, and we are by no means attempting to suggest that they are. Furthermore, given the young age of Emily, we cannot be sure that improvements were not due to the passage of time rather than the intervention. This case study is merely provided to illustrate what *can* be achieved when clients engage well in computerised programmes, even when they are somewhat

Table 23.3 Emily's exposure hierarchy. User Goal: To look and smile at and respond to all people's/grown-up's questions. Fear rating :10 Reward: A picnic out with the whole family.

Step	My steps	Fear rating	My rewards
Step 10	Look and smile and respond to several questions from unfamiliar people.	9	A new book or puzzle of choice
Step 9	Look and smile and respond to several questions from friends and familiar people i.e. friend's parents, carers at playgroup etc.	9	Go with Mum to the park for a play
Step 8	Look and smile and respond to one question from unfamiliar people	8	Go with Mum for a cupcake and a milkshake
Step 7	Look and smile and respond to one question from friends and familiar people i.e. friend's parents, carers at playgroup etc.	8	Get a small food treat
Step 6	Look and smile and say 'thank you' when served in a shop	8	Your choice of activity with mum for 30 minutes
Step 5	Look and smile and say 'good thank you' when asked how you are	7	Pushed on the swing for 15 minutes
Step 4	Look and smile and say 'hello' when greeted or 'goodbye' when farewelled	6	Help complete a jigsaw of choice
Step 3	Look and smile and wave when greeted or farewelled	5	Get a small food treat
Step 2	Look and smile at people when spoken to	4	Read a story of choice
Step 1	Look at people when spoken to	2	Praise and a cuddle

rudimentary in nature. Mary and Emily's therapist spent a total of 2 hours with this family, all over the telephone and internet. Thus, for mothers of young children with anxiety disorders who might find it difficult to attend face-to-face therapy, the implications of this treatment modality are great.

Concluding comments

Our intention for this chapter was to provide the reader with an overview of the ways in which technology has been used and can be used, to treat young people with psychological difficulties. Whether in the form of full CBT programmes delivered over the Internet, via CD-ROM or through chat-rooms, or as an adjunct to face-to-face therapy, the possibilities for using technology in treating young people are virtually endless. It has never been the intention of developers of computer-based programmes to replace the face-to-face therapist. Rather, technology should be viewed by all as an amazing opportunity to reach otherwise untreated young people and to enhance our face-to-face practice. It is our hope that the reader has come away from the chapter excited by the possibilities and

opportunities that technology can provide to deliver therapy to young people in new, engaging and creative ways.

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Mindfulness-based interventions in child and adolescent psychopathology

Susan M. Bögels, Esther I. de Bruin and Saskia van der Oord

Introduction

Mindfulness-based interventions have become an important and evidence-based treatment for many adult forms of psychopathology, such as depression, eating disorders, anxiety disorders and somatoform disorders. There is growing interest in applying mindfulness techniques for treating children and adolescents with psychopathology, as well as using mindfulness techniques for parents. In this chapter, we give a short overview of the small body of evidence for the effectiveness of mindfulness in children and adolescents with psychopathology. Next, we will present a short outline of the mindfulness programme that we have developed for children with attention deficit hyperactivity disorder (ADHD), and their parents, in a mental healthcare setting, and illustrate the programme with a case example. Finally, we will discuss further clinical applications of mindfulness approaches in children and adolescents, and their parents, as well as future areas of research.

Research results of mindfulness training for children and adolescents with psychopathology

Most of the studies assessing the effectiveness of mindfulness-based interventions, or mindfulness training (MFT; in this chapter MFT is used as an umbrella term to refer to all forms of mindfulness-based interventions, i.e. mindfulness-based stress reduction (MBSR) and mindfulness-based cognitive therapy (MBCT)), on the reduction of psychopathological symptoms have been carried out in adult clinical populations. However, the popularity of MFT for children and adolescents with psychiatric symptoms and disorders is rapidly growing worldwide. From the adult literature it is known that MFT seems to be effective in a variety of disorders including anxiety, depression and chronic pain (Kabat-Zinn, 1982; Kabat-Zinn *et al.*, 1992; Kuyken *et al.*, 2008; Teasdale *et al.*, 2000). Overall, meta-analyses report a medium effect size of MFT on psychological and physical health measures in adults (Baer, 2003; Grossman *et al.*, 2004) and stronger effect sizes for MBCT for anxiety disorders and depression (Hofmann *et al.*, 2010). In a very recent review of empirical studies on the positive effects of MFT on psychological health, 18 randomised controlled trials (RCTs) were reported with respect to MBSR of which the majority of study samples were from non-clinical populations. For MBCT, 14 RCTs were reported of which the majority of the study samples consisted of patients in remission from depression, but clinical samples of adult patients with unipolar and bipolar disorders and social anxiety

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disorder were also included (Keng *et al.*, 2011). For the treatment of adult patients in remission from depression, MFT can be classed in the highest category of evidence (1a) according to the clinical guidelines (Shekelle *et al.*, 2000).

Research on MFT in children and adolescents is still in its infancy (Burke, 2009; Semple & Lee, 2008). Thus far, only a few, small, not randomised, uncontrolled studies have been published. We attempt to summarise research results along three main lines of childhood psychopathology: autism spectrum disorders (ASD), internalising (anxiety and mood) disorders and externalising disorders (ADHD, oppositional defiant (ODD) and conduct (CD)).

Mindfulness training in children and adolescents with autism spectrum disorders

Children and adolescents with ASD have only very recently become a topic of investigation with respect to the effects of MFT. People with ASD have difficulty attributing mental states to others (theory-of-mind hypothesis (TOM); Baron-Cohen *et al.*, 2000; Leslie & Frith, 1988). This TOM hypothesis accounts for deficits in social interactions such as empathy (Meltzoff & Gopnik, 1993). People with ASD are sometimes considered to be ‘mind-blind’, and mindfulness might not develop automatically. Since MFT is considered to improve one’s empathy, and lead to one being more aware of one’s own non-judgemental present-moment emotions, and subsequently also to being more able to empathic responding to others (Siegel, 2006) it seems of interest to investigate the effects of MFT in this diagnostic group. All the more so, since evidence-based treatments for children, but particularly for adolescents with ASD, are limited.

Singh *et al.* (2006) aimed to determine whether mothers of children with autism ($n = 3$, aged 4–6 years) could reduce the problem behaviours of their children by changing their own behaviour in the interaction with their children. Although only three children were included in this study, the spillover effect of mindful parenting (MP) was shown since the mothers not only reported a large reduction in parenting stress after MP training, but also aggression and self-injury in the children was reduced (Singh *et al.*, 2006). Further, in a pilot study it was found that MFT in adults with ASD leads to a reduction in depressive symptoms, negative affect and rumination tendencies (Spek *et al.*, 2010). However, to our knowledge, no further studies about the effects of MFT in children and adolescents with ASD are published.

Mindfulness training in children and adolescents with internalising disorders

In most anxiety disorders, attention problems play a (big) role. For instance the attentional bias towards stimuli one is afraid of, the self-focused attention and attentional avoidance of all social cues in social anxiety disorder, or the poor concentration as a symptom of generalised anxiety disorder (Bögels & Mansell, 2004; Semple & Lee, 2008). This link between anxiety disorders and attention can be considered a rationale for assessing the effects of MFT in anxiety disorders. When the adult literature is examined, it can be seen that the abundance of studies focuses on the positive effects of MFT on symptoms of depression (Kuyken *et al.*, 2008; Teasdale *et al.*, 2000) and to a lesser extent on the symptoms of anxiety (Kabat-Zinn *et al.*, 1992; Koszycki *et al.*, 2007).

In children and adolescents with anxiety disorders, research is in its infancy. Semple *et al.* (2005) carried out a pilot study of MFT with children ($n = 5$, aged 7–8) with anxiety symptoms. Preliminary findings showed a reduction in internalising and externalising

symptoms as reported by the teachers. The main goal of this study was to examine whether mindfulness interventions appeared to be feasible and acceptable to carry out with (young) children with attention and anxiety problems. The authors concluded that mindfulness-based techniques can be taught to children as young as 7 years of age (Semple *et al.*, 2005). The effects of this manualised MFT for children were further assessed in an RCT in which 25 children (aged 9–13) from ethnic minority backgrounds, with reading difficulties and associated stress and anxiety, were randomised to MFT or waitlist. A reduction of attention and behaviour problems was shown, but also reductions in anxiety symptoms were found for those children who reported clinically elevated levels of anxiety before the MFT (Semple *et al.*, 2010).

As far as we are aware, only one RCT is reported with respect to the effects of MFT in child and adolescent psychiatry (Biegel *et al.*, 2009). Although this study did not focus solely on adolescents with internalising disorders, the majority did suffer from mood disorders (around 50%) and anxiety disorders (around 30%). Adolescents ($n = 102$, aged 14–18) from an outpatient department were randomised over treatment as usual (TAU) or TAU + MFT. Adolescents who received MFT as an adjunct to TAU reported reductions in anxiety, depression, somatic complaints and improvements in self-esteem and quality of sleep as compared with the adolescents who only received TAU. In addition, diagnostic improvement (i.e. meeting the DSM-IV criteria for a disorder) was much bigger for the TAU + MFT group. For instance, mood disorders reduced from 59% before the MFT to 27% at follow-up for the adolescents in the TAU + MFT group, as compared with 48% and 58% respectively in the TAU-only group. In line, the prevalence of anxiety disorders reduced from 35% to 21% in the TAU + MFT group and was 28% (before TAU) and 38% (after TAU) for the TAU-only group. In general, the findings of this study provide evidence that MFT may be a beneficial adjunct to outpatient mental healthcare for adolescents (Biegel *et al.*, 2009). Although this is only one study, according to the clinical guidelines (Shekelle *et al.*, 2000) the evidence for MFT with these outpatient adolescents with primarily anxiety and mood disorders falls in category 1b (evidence from at least one randomised controlled trial).

Mindfulness training in children and adolescents with externalising disorders

Most of the child and adolescent research focuses on the role of MFT in the treatment of externalising disorders, predominantly ADHD but also oppositional defiant and conduct disorder. The rationale for this is that the main mechanisms of MFT concern the improvement in attention (Baer, 2003; Shapiro *et al.*, 2006), and externalising disorders have in common problems in attention and related impulsivity.

Singh *et al.* (2010) combined MFT for children with ADHD and MP for their parents. Although only two children with ADHD were studied (aged 10 and 12), an increase in compliance of the children was found after MP training, and compliance increased further after MFT for the children. Some of the effects were maintained at follow-up. Further, Singh *et al.* (2007) reported about the effects of MFT in adolescents with a more severe externalising disorder, conduct disorder (CD; $n = 3$, aged 13–14). Self-reported aggression and non-compliance only decreased slightly during MFT, but a substantial decrease was found at follow-up.

In a pilot study of MFT for adolescents ($n = 14$, 11–18 years of age) with mixed externalising disorders (ADHD, ODD, CD and also ASD characterised by externalising symptoms were included) and MP for their parents, several promising findings were

shown. After MFT, the adolescents reported lowered internalising and externalising symptoms, fewer attention problems, more happiness and they performed better on an independent neuropsychological measure of attention. In addition, parents reported reduced internalising and externalising symptoms in their child, and improvements in self-control and attunement to others in their teenagers. Improvement was maintained at follow-up (Bögels *et al.*, 2008).

In addition, Zylowska *et al.* (2008) assessed the effects of MFT in adolescents ($n = 8$, mean age 15.6 years) with ADHD. Results were combined with those from adults with ADHD ($n = 24$, mean age 48.5 years). Self-reported symptoms of ADHD were decreased after MFT. A strong point in this study was the addition of an objective neurocognitive measure of attention, which also showed improvement after MFT. Very recently two more studies were published in which MFT for children ($n = 22$, aged 8–12) and adolescents ($n = 10$, aged 11–15) respectively was combined with MP for their parents. Parent-rated ADHD symptoms of parents and children reduced after participation in MFT and parallel MP. This reduction in symptoms was maintained at 8-week follow-up. Further, at follow-up, a large reduction in parental stress and over-reactivity in parenting was shown. A strong point in this study was that teacher ratings of ADHD and ODD symptoms were included. However, no reductions in ADHD or ODD behaviour according to teachers were found (Van der Oord *et al.*, 2011). A second study of the same research group, directed to adolescents with ADHD and their parents, found that after MFT + MP self-reported attention and behaviour problems in adolescents reduced and executive functioning improved. The same was found based on fathers' and teachers' reports. Further, adolescents showed improvements on objective neuropsychological computerised tasks of attention after MFT and MP as compared with before. Fathers reported a reduction in parenting stress, and mothers reported to be less over-reactive in their parenting. The effects of the MFT and parallel MP were even stronger at 8-week follow-up but waned at 16-week follow-up. Interesting in this study design were the addition of neuropsychological measures of attention, the reports of fathers and the addition of a longer-term measurement of effects. It therefore became apparent that maintenance strategies need to be developed for MFT and MP to remain effective in the longer term (Van de Weijer-Bergsma *et al.*, 2011).

According to the clinical guidelines (Shekelle *et al.*, 2000) we can conclude that the evidence for MFT for children and adolescents with ADHD falls in category 2a (evidence from at least one controlled study without randomisation).

Summary of the efficacy studies in mindfulness training in young people with psychopathology

We can see that initial results are very promising, and MFT as an intervention for child and adolescent psychopathology gains in popularity at an enormous rate. However, we also need to realise that MFT is not a panacea for all child psychological and psychiatric symptoms and disorders. For each mental health disorder, a clear underlying theory and rationale should be considered before applying MFT. Studies of MFT in child and adolescent psychopathology currently suffer from large methodological shortcomings such as small sample sizes, lack of objective outcome measures (mostly self-reports are used), lack of measurement of the change in underlying working mechanisms, and most importantly, lack of randomised controlled designs. In order for MFT to be classified as a 'probably efficacious' intervention in children and adolescents with psychiatric symptoms or disorders, at least two randomised controlled trials are needed that show that MFT is more

effective than an alternative intervention (Baer, 2003; Burke, 2009). It is now time to move forward from the very positive findings from several pilot and uncontrolled studies into more standardised, methodologically robust RCTs to further explore and possibly strengthen the evidence for the effectiveness of MFT in child and adolescent psychopathology.

Mindfulness training for children and adolescents with attention deficit hyperactivity disorder and parallel mindful parenting training

Why mindfulness training for children with attention deficit hyperactivity disorder?

Children with ADHD have problems maintaining attention over prolonged periods of time, have difficulty holding goals and plans in mind and have difficulty inhibiting a pre-potent response (Barkley, 1998). Consequently, their behaviour is inattentive, impulsive and hyperactive. To date, there are two evidence-based treatments for children with ADHD; medication (mostly stimulants) and behavioural treatments (Van der Oord *et al.*, 2008). Medication is currently the treatment for severe ADHD most strongly supported by the scientific evidence (NICE, 2008). However, its value in the long term is uncertain, it sometimes has significant side effects, and treatment fidelity is often low (Schachter *et al.*, 2001). The most used form of behavioural treatment is behavioural parent training. However, ADHD is highly heritable and a diagnosis of ADHD in parents is a predictor of non-response to this behavioural parent training (Sonuga-Barke *et al.*, 2002). Cognitive-behavioural treatments for ADHD are focused on teaching the child skills or coping methods to handle their ADHD or associated problems. These cognitive-behavioural treatments do not meet criteria for empirical support; long-term effects are limited and generalisation of the learned skills to other settings than the therapy setting is often low (Chambles & Ollendick, 2001; Pelham & Fabiano, 2008). Therefore, other treatments, next to regular treatments, focusing on the core problems of ADHD, need to be developed and investigated for children with ADHD and their parents. Mindfulness training appears to intervene at the core problems of ADHD, as maintaining attention over prolonged periods of time is directly trained (e.g. focusing attention on breathing or the body), as well as inhibiting a pre-potent response (e.g. watching thoughts as thoughts rather than taking action).

General features

The programme consists of eight 1.5-hour group sessions for between four and six children (aged 9–12), or between six and eight adolescents (aged 13–17) with a diagnosis of ADHD, and parallel eight 1.5-hour group sessions for their parents, plus a follow-up session 8 weeks after the end of the training. At least one of the parents should participate for the child to be enrolled in the programme, but we encourage both parents to take part. Oppositional defiant disorder is often comorbid with ADHD in children and adolescents that are referred to mental healthcare. We use it as an exclusion criterion, in case the oppositional behaviour is so disruptive that the child or adolescent is expected to disturb the group process. Another exclusion criterion is that the family is not able to attend meetings, that is, has at least two times not shown up at an intake or assessment appointment, despite clear communication of the professional.

The MFT child group is guided by two trainers, of which one is an experienced mindfulness teacher as well as a child therapist with a cognitive-behavioural background, preferably with experience in working with ADHD children in groups. The second trainer supports the expert trainer when necessary, for example when a child needs individual

attention and guidance. In our centre the second trainer is often a therapist who is in training to become a mindfulness teacher for children and parents. The MP parent group is guided by a mindfulness teacher who is trained in MP, and preferably also has experience in running the MFT child groups. We have weekly supervision sessions of 1 hour in which child and parent group trainers come together and discuss details of the protocol, the groups, and how individual families in the groups progress.

After each session, children received illustrated session handouts describing themes, instructions for practice, and homework completion forms, and their parents receive copies of the child handouts, as well as handouts describing themes, instructions for practice and homework completion forms concerning their MP course. Families are suggested to do the child meditation practice in the last 10 minutes before the child goes to bed, the reward for the child being that he can go to bed 10 minutes later. Parents, as well as guiding the child with their meditations, have their own homework of about half an hour per day consisting of formal and informal meditations and MP practices, for example, observing the child with full awareness. Parents and children receive CDs with guided meditations.

Selecting and preparing the family for the training

In addition to a general intake interview with child and both parents, the diagnosis of ADHD of the child is confirmed by a semi-structured Anxiety Disorders Interview Schedule (ADIS) interview (Silverman & Albano, 1996), separate for parents and child, about the ADHD and possible ODD and CD of the child. Also, the idea of mindfulness is introduced and a short meditation exercise (focusing on breathing) with child and parents together is carried out, to orient the family on the training. If the child uses medication for ADHD but there are questions about the dosage, or if the family has a question about starting medication, this is discussed with the child psychiatrist. Our approach when the child uses medication is to keep medication dose and type stable throughout the 8-week programme plus the 8-week follow-up period. If dose or type adjustments of medication are needed, this is done well before start of training. The reasons why it is better not to stop medication or to change medication during the programme, is that families are then no longer able to assess the beneficial effects of the meditation. Families do reduce or discontinue, or start or increase medication after having followed the full MFT and MP, preferably after the 8-week follow-up.

The eight sessions of mindfulness training for the children

In the following, we will describe the eight-session MFT programme for children with ADHD, as developed and tested by our research group at the University of Amsterdam (for the results of the pilot-study see Van der Oord *et al.*, 2011). The parallel MP training is described shortly as well.

Session 1. The ‘man from Mars’

In the first half hour of the first session children, parents and child- and parent trainers all meet together. We start with a brief 2 minutes of sitting meditation, called weather forecast, focusing on how everyone feels at this moment. Afterwards, all participants (including the trainers) are invited to say in one or two words how they feel: they generally say things like ‘tense’, ‘excited’, ‘curious’, or a boy might just do thumbs up. Then, the ‘raisin exercise’ is done (Segal *et al.*, 2002), adapted to children of this age. An important adaptation is that

everyone is invited to say aloud during the meditation what one sees, hears, senses, smells and tastes (the senses), in order to facilitate direct sharing of experiences. The third issue of the first half hour together concerns the reward system, aimed at enhancing motivation for the training and compliance of the children to the training. The trainers explain how the system works, that is, how children can earn points for homework and for participation in the group, and invite children to negotiate with their parents their rewards when they have reached a certain number of points. We ask families also to think about non-material rewards. For example, one boy formulated as a reward that he wanted to play (and complete) a game of Monopoly with both his mother and father. Points are given by the trainers, rewards for the points by the parents.

Next, parents go to their separate MP group and the child session 1 continues with body stretches, a short sitting meditation focusing on breathing, formulation of group rules, psychoeducation of what ADHD is and how meditation can help, and a repetition of the raisin meditation using chips. Afterwards, we repeat with the children the five senses, and how our senses help us to pay attention here-and-now.

Session 2. Home in our body

The general build-up of sessions 2–7 is that we start with a short sitting meditation, repeat with the children what the theme of the last session was and what we have learned, then introduce the new theme, do practice around the new theme, and discuss the homework in two subgroups and give points for the homework. We end each session with yoga practice, assigning the points that they have earned during the session, announcing the new homework and a short sitting meditation.

We introduce in session 2 how listening to the body can help become aware of moments of restlessness, lack of concentration, and impulsivity, that is, how the body is an alarm clock of how we are doing. At the same time, body awareness can help to concentrate and become calm. We do a short body-scan, in which children subsequently stretch and then relax their different body parts in order to become more aware of what they can feel there and the change in sensation in their bodily sensation after stretching. They also draw each other's body in pairs; one child lying on a large enough piece of paper, the other drawing the outlines, and vice versa. Then, they draw what happens in what parts of their body when they feel busy, restless, etc.

Session 3. The breath

In this session children experience what happens with their breathing when they have strong emotions and when they are restless and hyperactive, and how focusing on breathing can help them anchor in the present moment, and calm down. We do exercises such as 'crazy walking', where we imagine being in the underground in London at rush hour, and we all walk at increasingly fast speeds across each other to catch our train, until a trainer cries 'freeze' and we all freeze into our position, focusing on bodily sensations. Fast breathing is always the most significant one mentioned. We also focus on the physical process of calming down. Next, other practices and games using breathing are done, to increase awareness of their breathing. The body scan is repeated, now without first stretching.

Session 4. Distractors

Session 4 focuses on identifying distractors: external distractors such as sounds, children talking; internal distractors such as being tired, hungry; and how meditation can help to

stay with our focus when there are distractors. An important and fun exercise is that one child has to do a meditation (sitting or lying), guided by the co-trainer, and the other children plus main trainer try as best as they can to distract the meditator. Each child gets his or her turn to do a meditation. The breathing space is introduced.

Session 5. Highway, walking way

This session begins with 20 minutes of parents and children together. We do a sitting meditation on what we have learned so far, as we are half-way through the training and everybody gets his turn saying shortly what he has learned. The function of being together is also that parents get a sense of how the children are working in their own group. Then, parents and parent trainer leave to their own MP group. The metaphor “highway, walking way” stands for those moments where the child is out of control (highway) and how by slowing down using breathing focus the child can get on the walking way. The breathing space is practiced as a means to slow down, particularly in moments of anger, restlessness, boredom or stress.

Session 6. What we’ve learned

In session 6 we repeat all the central concepts by a quiz with cards with drawings from the workbook that represent the central concepts, and the one who knows the answer can ring the meditation bell.

We introduce seeing meditation (following a soap bubble) and hearing meditation (listening to the meditation bell). We keep practicing the breathing space in moments of chaos/intensity.

Session 7. Practice when it gets difficult

In this session each child gets a chance to guide a meditation: body-scan, sitting, seeing meditation, hearing meditation, meditation on chips, yoga or breathing space. The application of the breathing space is practiced using the following exercise: children choose their favourite sweet (e.g. Mars bar). The trainers give all children half of their favourite sweet, and say that they will leave for an unpredictable amount of time, but when the half is there uneaten when they return, children get the other half as well. Children are not allowed to talk. They are suggested to become aware what is happening in their body and mind when they sit with half of the sweet, and use a breathing space. When trainers come back, they give all children who have not touched the sweet the other half.

Session 8. On your own

This session is for the most part with children and parents together. Children each pull out a card with instructions of which meditation they will guide. This way, six meditations are done with parents and children together. The child that is the teacher receives applause after having led the practice, and of course a point. Then, parents withdraw with the MP trainer to discuss their homework and the children discuss their homework and decorate two or three pieces of cake: one for themselves, one for their parent(s). The last child guides the ‘man from Mars’ meditation, on the excessively decorated cake (before eating it). Then, a meditation is led by the trainer on what we have learned, both the child and the parents. Each child can say afterwards what the parent(s) has learned, and each parent what the child has learned. Finally, each family makes a plan for meditation practice in the next 8 weeks, until the follow-up session, and they share their plans with the group.

Follow-up session

At the 8-week follow-up session, which is mostly with parents and children together, we do some meditation exercises, and families share what they have practiced from their plan. Also, we do a walking meditation. Finally, we sit down with each individual family to discuss the progress on the questionnaires they filled in, as well as the question whether they need any further treatment.

The eight parallel sessions of mindful parenting for the parents

The MP follows an extensive manual, which is a modified version of the manual described in Bögels *et al.* (2008, 2010) to meet the needs of parents of school-age children with ADHD. In MP parents learn to: (1) be deliberately and fully present in the here-and-now with their child in a non-judgemental way; (2) take care of themselves, as this is the basis for parenting, and can be particularly important with a child suffering from ADHD; (3) accept difficulties of their child; and (4) answer rather than react impulsively/on automatic pilot, to difficult behaviour of their child. As parental stress causes over-reactive parenting, awareness of and dealing with parenting stress by using mindfulness is an important focus throughout the course. Parents are also instructed how to encourage their child to do the meditation exercises, and how to practice together. Awareness of one's automatic reaction to the child's (ADHD-related) oppositional, inattentive and hyperactive behaviour is enhanced, and the breathing space practiced on such occasions, to change parental automatic, inattentive, impulsive or judgemental reactions into more intended, mindful responses. Parents are invited to define the worst behaviour of their child as their meditation bell. Also, given the higher chance that participating parents suffer from ADHD-like symptoms themselves, mindfulness and MP exercises and the subsequent inquiry are tailored towards the application to parents' own restlessness, inattentiveness, impulsivity, lack of structure etc. The extra strains that a child with ADHD can put on parenting and on family functioning, and how mindfulness meditation can help, are also addressed. For example, parents (or partners of parents) of children with ADHD may need meditation to find their own calm in the middle of a more busy and chaotic family. Another example: adolescents strive for autonomy but a child with ADHD may need more (parental) guidance, but also needs to sense that parents trust his or her growing autonomy. Mindful parenting may help parents become aware of this paradox and find a balance between close monitoring and support and letting go. The importance for the parents to practice daily, in order for them to embody mindfulness, to guide their child, to function as a role model, as well as for their own well-being and possible ADHD symptoms, is emphasised.

Clinical case example

In this clinical case example we describe how the MFT protocol for children with ADHD and their parents was used for a 10-year-old boy (K) with ADHD, predominantly inattentive type, and his mother. K was referred to an outpatient mental health clinic because of problems with inattention in both the school and home situation. The teacher described him as a boy that was easily distracted by external cues. He had difficulty with completing his schoolwork on time, and made a lot of mistakes in his assignments. When the environment was noisy or with a lot of external cues, he could also become quite hyperactive and impulsive, but did not meet enough criteria for this subtype of the diagnosis. He forgot many things; his mother said she

gets really irritated because everything he takes to school never arrives back home. Although K is quite intelligent, the teacher and the mother were worried that because of these problems, he would not be able to pass to the next year. He did not take medication for his ADHD, and had had no former psychological treatment for his ADHD.

After intake procedure at the outpatient mental health clinic, K and his parents were offered to take part in the MFT for children with ADHD and MP for parents. Although often the child is the reason for referral, both child and parent(s) need to actively participate in the mindfulness treatment. Our clinical experience is that for this treatment for both child and parent(s), it is very important to provide both parties with extensive information and psychoeducation on the time and effort that is needed for this treatment. Also, both parent(s) and child need to be motivated. In this psychoeducation session with both parents and K it was established that only his mother had enough time and motivation to come to the mindfulness sessions; she had some experience with yoga, had heard about mindfulness and really wanted to know more about this method. K's father had a full-time job, was often not home until late at night, and could not see where he would find time to do the homework. In daily life the mother had problems with time management. More and more she was running late for appointments. Recently, this had led to a reprimand from her manager. Also, the mother had difficulty organising the household, groceries and getting the children to school on time. She constantly felt stressed, which in turn affected her parenting. She noticed she was easily irritated, and displayed more negative parenting, which affected K's behaviour. K behaved oppositionally to her. Although she would have never sought help for her own problems, she thought the mindfulness could be quite helpful for her. K was not too excited about the idea of having to come to treatment for 8 consecutive weeks, but after explanation of the MFT group, that he can also earn something from participation in the sessions and his mother also has to come, he said he will give it a try. With his mother it was agreed that he could earn a computer game he really wanted with the points of his homework.

Mother and son came to every session, each to their own group. In the first sessions the therapists noticed the mother had difficulties with time management. Twice she came too late, had lost her house keys on the way to the clinic and had forgotten her homework. She often arrived at the sessions quite agitated, and it took her a while to settle down and find the focus in the mindfulness exercises. While practicing the meditation exercises, the mother had difficulty not stopping the mindfulness exercises after a couple of minutes and being non-judgemental about her restlessness. Also, she noticed that in her parenting she was often quite judgemental about K; she thought he was asking for attention or being oppositional 'on purpose'. For example during meditations at home, she said she got so distracted by thoughts of the household (e.g. 'I really have to do the washing') or by noises of her sons playing in the other room (e.g. 'They must be up to something'), that she stopped meditating after 10 minutes. During the MP course, she experienced that the morning was a better time for her to meditate (children are asleep) and she became more and more able to observe these thoughts and to disengage her attention from these thoughts to her breathing. At the end of the course, she was able to complete 25 minutes of meditation. Also, from the first to last sessions therapists noticed a difference in her time-management skills, in the last sessions she was on time and had her homework completed and with her. The mother said that the mindfulness exercises had helped her to be more in the present moment, which eventually led to being less stressed and more structured in the household and in her daily life.

During the first group sessions her son K was easily distracted by the other children or by external cues. Although in the beginning of the exercise he tried to do the exercise, after a short period of time he was distracted and often started laughing and fidgeting. Therapists noticed that giving a point during the exercise and promising one at the beginning for good compliance of the mindfulness exercises really motivated him to do and to complete the exercises. More and more he liked doing the meditations. At the end of the MFT, he memorised the instructions of for example the body scan and could lay still with his eyes closed, doing a body scan for 20 minutes. He really enjoyed being a mindfulness instructor to the other children. At the knowledge quiz in one of the last sessions he could explain to other children why focusing on your breathing is important, and how this can help. He really seemed to have learned a lot about mindfulness and experienced that it worked for him.

Mother and child seemed to really enjoy the mutual moments in the mindfulness programme. During the joint parental–child sessions they were helping each other, making jokes and laughing together. Although K found the homework that they had to do together boring at times, he really enjoyed the quality time and attention of his mother. Also, doing these exercises together before his bedtime helped him to get to sleep (this was a problem before). During the final session he said that the element of the treatment he liked best was both the yoga and the sitting meditation. He said that, if he now noticed that he got distracted in the classroom, he just focused on his breathing and that this helped. Also, he said, laughingly at his mother, that he thought his mother was less angry with him and he really liked that. In future, they planned to keep up with 15 minutes of quality ‘home-work’ time three times a week, and planned to do sitting meditation and also a yoga exercise in this time.

Assessments with questionnaires conducted before and after the MFT and MP training confirmed the subjective evaluation of mother and child of the benefits of the training programme. The mother showed reduced scores on her own inattention, parental stress and over-reactivity and an increase of her mindful attention and awareness. Moreover, she reported a reduction of inattentive and oppositional behaviour of her son. Although the teacher of K also reported a decrease of inattentive behaviour, effects were not as pronounced as reported by the mother.

Discussion

Mindfulness training combined with MP are promising approaches for treating child and adolescent psychopathology (and related parenting problems). A word of caution is needed with respect to MFT for children with anxiety disorders. Highly effective cognitive behaviour programmes exist for treating childhood anxiety disorders, with effect sizes double those generally found for adults with anxiety disorders (Bodden *et al.*, 2008; In-Albon & Schneider, 2007). Therefore, it is doubtful whether MFT approaches could be as or more effective than what we already have for these disorders. There might be indications for developing MFT for processes active within anxiety disorders for which CBT is less effective, such as for obsessive-compulsive disorder (OCD), and for severe and persistent rumination. Effect sizes for CBT for childhood depression are much less impressive (Weisz *et al.*, 2006), and given the success of MFT for adult depression, much is to be said for developing and investigating MFT in childhood depression. For other childhood psychopathology for which existing psychological treatment is

limited in its effects, such as for ASD and for oppositional defiant and conduct disorders, MFT could be an effective approach, to be (further) developed and tested.

An important question is whether parents of children that receive MFT should be trained in mindfulness as well. Some research groups (of Bögels and of Singh) have focused on parallel or subsequent MFT for the child or adolescent and MP for the parent(s), whereas other research groups have focused only on the child or adolescent (Semple *et al.*, 2005). Our clinical experiences with parallel training of children/adolescents, and their parents, have been positive, and it is our impression that such parallel training enhances the effects of MFT for children or adolescents alone in many ways. First, parents support the home practice of their children better when they are trained themselves. Second, mindfulness becomes part of the family, and ‘a way of living’, which helps to generalise the effects. Third, parents who suffer from psychopathology for which mindfulness helps (e.g. depression or ADHD) and whose psychopathologies get in the way of the parent–child relationship or effective parenting of a child with psychopathology, are helped with MP. Fourth, parents and children enjoy doing this together, and it appears to have positive effects on the relationship between parents and children. Fifth, it is an efficient approach because parents mostly bring and pick up their child for treatment, and might then just as well follow MP training for themselves in their parenting role. For a deeper discussion of the beneficial effects of MP we refer to the review of Bögels *et al.* (2010). Whether such a combined approach is indeed more effective than mindfulness interventions that focus primarily on children, and whether that is true for children of different ages/developmental stages, is a question for further research.

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Conclusion and future directions

Shirley Reynolds and Philip Graham

The growth and development of cognitive behaviour therapy (CBT) means that many more children and adolescents with mental health problems can now benefit from an effective psychological treatment. In human terms this is an enormously important achievement because of the positive impacts on children and families in the short and longer term. Prompt and early intervention has the potential to reduce suffering and to build resilience and strength. However, access to CBT remains limited. It is not yet universally available even in countries with comprehensive healthcare systems. From our perspective the accessibility of CBT for children, adolescents and their families is a key challenge for the future.

The success of CBT with children and their families can be attributed to at least three linked factors. First, at any point in time, around 10% of children and young people have mental health problems which would meet diagnostic criteria (Meltzer *et al.*, 2000). However, despite the very large number of children in need of effective help there is a limited range of evidence-based psychological interventions available. This has provided strong motivation to clinical researchers to progress CBT developments, and has also helped researchers obtain funding for high-quality research.

Second, CBT with children and adults has borrowed theoretical constructs, language and methods from many other traditions in psychology, psychiatry and psychotherapy. The clinical use of CBT with children and their families has particularly benefited from adapting core cognitive and behavioural approaches and integrating these with systemic and developmental models. Several chapters in this book highlight the flavour of the integration and the benefits which it brings. Cognitive behaviour therapy with children and young people has thus developed some distinctive therapeutic approaches. It has also benefited from borrowing the advances that have been made in the treatment of adults.

Third, CBT with children and adolescents has developed through the close integration of clinical practice and research. Cognitive behaviour therapy, more than any other mode of psychological therapy, has been able to demonstrate that it is efficacious and cost effective. Clinical researchers such as those who have contributed to this book have developed new CBT interventions and demonstrated that these are effective. In addition, the dissemination of CBT has been significantly helped by the growth in evidence-based practice, the ability to disseminate research findings through a range of electronic and traditional media and the development of systematic review and meta-analytic methods.

These elements provide an excellent basis for the future development of CBT with children, young people and their families. Although they have highlighted many successes

of CBT therapy, our authors have also raised many unanswered questions and identified limitations to our current knowledge and to the effectiveness of CBT.

We do not have a crystal ball so our predictions may lack accuracy and specificity but in looking forward we anticipate that the most significant developments in CBT will be based on clinical research and that clinical researchers will continue to seek answers to important problems. There is a continuum of research relating to CBT which encompasses a range from highly theoretical and laboratory based investigations in neuroscience through to service-based pragmatic research at the ‘coal face’.

Lau, Hilbert and Gregory (Chapter 2, this volume) have shown how fundamental research on biological and genetic processes contributes to understanding the aetiology of mental health problems in children. Although advances in neuroscience and genetics have so far contributed rather little to clinical practice, they do have considerable potential to transform healthcare especially in relation to prevention and very early intervention. Psychological research also needs to address questions relating to cognitive development, learning, information processing and temperament in order to obtain a better understanding of processes which might be adjusted through psychological interventions.

Developmental and cognitive psychology will also help us develop new cognitive-behavioural interventions specifically for children and adolescents. For example, Field and colleagues demonstrated the powerful learning effects on a child obtained by watching another child (Broeren *et al.*, 2011) or an adult (Kelly *et al.*, 2010) behaving fearfully. Murray and colleagues have demonstrated that mothers with social anxiety model socially anxious behaviours to infants of 9 months (Murray *et al.*, 2008) and highlight environmental and social threats when talking to their 4-year-old children (Pass *et al.*, in press). These findings suggest that direct psychological interventions with anxious parents, focusing on their interactions with their children, may help prevent the development of new anxiety problems in young children.

In addition to developing child and adolescent specific interventions there is much we can still learn from developments in CBT with adults. For example, Kuyken *et al.* (2008) have shown that mindfulness-based CBT is effective as a method of relapse prevention in chronic depression. Further, laboratory-based research on attentional and interpretation biases has shown that these can be altered through systematic training. On the basis of this laboratory research, an exciting new intervention, Cognitive Bias Modification, has been developed which appears to alter negative biases and reduce anxiety and depression (Hallion & Ruscio, 2011). Because this intervention is delivered by computer and not by a therapist, it has the potential to be disseminated easily and cheaply especially to young people who might otherwise not seek out traditional talking therapies.

The demands on researchers to demonstrate that their clinical trials are stringent tests of effectiveness continue to rise. The gold standard method of evaluating the effectiveness of treatment remains the randomised controlled trial (RCT) and there is evidence that the quality of RCTs with children and young people has improved over time (e.g. Reynolds *et al.*, 2012). High-quality RCTs are essential to demonstrate the effectiveness and acceptability of CBT to families but we also benefit from the evaluation of new interventions in routine clinical practice. This form of ‘benchmarking’ is becoming more common and helps demonstrate to clinicians that treatments can and do work in real clinics and with ‘real’ clients.

No matter how effective CBT is and no matter how novel and exciting new developments are, the ultimate goal must be to make CBT accessible to all children and families who

would benefit from it. Stallard *et al.* (2007) have shown that, among admittedly a small sample of specialist CAMHS professionals practising in the UK, only one in five reported CBT to be their dominant therapeutic approach, whilst, despite evidence supporting the use of CBT, 40% rarely used it. The authors of the survey concluded there was a need to develop CBT training and supervision infrastructures in the UK.

Fortunately there is now a variety of creative and innovative methods of providing CBT through a range of media. Children and young people are often early and enthusiastic adopters of new technology. This means that the opportunity to disseminate CBT effectively has never been greater. The opportunities provided by new technologies also mean that CBT can become truly international in scope. Therapists need no longer be sitting in the same room or even the same country or time zone as their patient. It would however be inappropriate to assume that CBT theories and practice can be readily transplanted across cultures. As Fatimilehin and Hassan (Chapter 8, this volume) have pointed out, CBT is dominated by Western ways of thinking about the 'self'. For example, research on autobiographical memory conducted in the UK and North America suggests that memories tend to be focused on the self as an individual agent. In contrast, participants from non-Western cultures recall memories which relate more to the communal and interpersonally oriented 'self' e.g. self as a family member or part of the community (Jobson & O'Kearney, 2008). Following traumatic events, memories are encoded and recalled along dimensions which are very largely culturally determined and which have a direct impact on our models and treatment of PTSD (Jobson, 2009). Culturally sensitive research is now needed to assess if current CBT models are suitable and appropriate for children and families who live in non-Western cultures.

Final thoughts

Cognitive behaviour therapy has demonstrated enormous potential for improving the lives of children, adolescents and families in mental distress. The chapters in this book demonstrate the many and diverse ways in which CBT has progressed through research as well as the challenges which remain.

The key word for the future, in our view, is *collaboration*. At the basic science level, neuroscientists need to collaborate with cognitive and developmental psychologists in theory development and experiment. Several exciting new areas of research in genetics and neural development have been highlighted in this book, but the clinical impact of this work is still some way off. As well as collaboration at the basic science level, there needs to be more collaboration between basic scientists and clinical practitioners, so that those in practice can inform scientists of the opportunities for and barriers to progress, and scientists can keep clinicians informed of the latest advances in their fields. Collaboration also needs to occur between practitioners from different disciplines, especially psychology, psychiatry and psychotherapy so that the benefits of CBT can be examined in relation, for example, to benefits from medication to determine whether these different approaches work better in isolation or when applied together. Above all collaboration needs to take place between clinicians and the children, adolescents and parents who use our services. Motivational change is often the key to success in all modalities of therapy. Recruiting the enthusiasm of service users in the cause of change is a necessary first step on the road to symptom reduction and better adaptation. This book has not included contributions from service users. This is an important omission and one that will need to be remedied in future editions if CBT and related therapies are to have the impact the evidence suggests they merit.

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