

PSYCHOSOCIAL STRESSORS IN DEPRESSION

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Summary

A sample of 135 depressed patients was matched with an equal number of nonpsychiatric inpatients to evaluate the relationship of psychosocial stressors and depression. Overall, the depressed patients reported significant excess of stressors than the control patients one year prior to the onset of depression. Greatest significant differences were found among the conjugal, family and financial stressors. Overall severity of the stressors was found much higher in depressed patients than control patients but no significant relation between severity of depression and severity of stressors was found. The mean duration for all stressors was 7 months before the onset of illness in depressed patients. The findings support the importance of psychosocial stressors in causation of depression.

Introduction

Depression is one of the commonest psychiatric disorder in Bangladesh. In a rural community survey the prevalence rate of 28.78/1000 population was reported¹. Depression was reported to be 34.5% and 19.5% amongst psychiatric patients attending in psychiatric OPD in a general hospital and in a psychiatric institute respectively^{2,3}. Depression is thought to stem from combination of genetic, biochemical and psychosocial factors⁴. Of the psychosocial factors, stressors most frequently influence the onset and severity of depression⁵⁻¹⁰.

A number of controlled studies reported that psychosocial stressors were experienced with a greater than expected frequency prior to the onset of depression^{5,11-14}. Typically, these stressors were described as losses or exits, undesirable, threatening or severe in character. The present study was designed to assess the pattern of stressors in depression and to find out the relationship between them. The different observations may give some idea about the extent of psychosocial stressors in depression in Bangladesh.

Materials and Methods

A consecutive series of 135 depressed patients of either sex and any age satisfying DSM III_R criteria for major depressive episode¹⁵ were selected as study group. They included 100 outpatients and 35 inpatients of Institute of Mental Health & Research and Psychiatric department of Sir Salimullah Medical College & Mitford Hospital at Dhaka during the period from January, 1993 to June 1993. Patients in whom depression was secondary to other disorders were excluded. Of these, 64 were male and 71 were female. The male & female ratio here was 1:1.11. Their age ranged between 17 to

60 years with a mean of 32.81 years (SD=10.35). Fifty four were illiterate. Of the 46 literate, primary educated and graduate were 20 cases respectively.

Among the subjects, 62 were housewives, 25 were service holders, 11 were unemployed and rest were of other occupations. Urban rural distribution were 70 and 65 cases respectively. 70 cases were predominantly of low economic group and only 3 cases belonged to higher class. Ninety five cases were married, 20 were unmarried and 11, 5, 4 cases were found to be separated, divorced and widowed respectively.

Another sample of 135 nonpsychiatric medical inpatients were collected from the same hospital to form a control group which was matched for age, sex, education, occupation, marital status and socio-economic condition. All of the patients of both group were interviewed by one of the authors with informed consent. In addition to psychosocial stressors, the interview covered sociodemographic variables, physical and mental health status. The severity of depressive symptoms were assessed for all cases using Hamilton Rating Scale for Depression (HRSD)¹⁶.

Psychosocial stressors were measured on the basis of axis-IV of the multi-axial evaluation system of DSM-R which provides the severity of Psychosocial Stressors Scale (SPSS)¹³. The time period for which a stressor or multiple stressors were recorded was one year prior to the onset of depression and immediately prior to the current evaluation for study group and control group respectively. Individual stressors and their types were considered according to this scale with slight modification which was necessary in our socio-economic cultural context. The severity of the stressors were evaluated and rated clinically according to code 0-6

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given in 7-point SPSS, code 0, 1, 2, 3, 4, 5, 6 representing inadequate information, none, mild, moderate severe, extreme, catastrophic respectively. The individual stressor was further specified as either: predominantly acute events (duration less than 6 months) or predominantly enduring circumstances (duration greater than 6 months).

The data was processed and comparison was made between the study group and control group. Statistical analysis involved two tailed t-tests and χ^2 tests with Yates' correction.

Results

The depressed patients and control patients were compared on measures of depression and psychosocial stressors. The depressed group scored on HRSD a mean of 31.78(SD=6.46) and that for the control group was 10.47(SD=4.72). The difference was highly significant. The depressed patients reported a total of 253 stressors, with a mean of 1.87(SD=0.98) for each patient. The control patients reported a total of 101 stressors, with a mean of 0.75(SD=0.74). This revealed that the depressed patients reported two and half times as many psychosocial stressors as the control patients. This difference was significant at higher level (Table-I).

The frequency of psychosocial stressors among the depressed patients and control patients are shown in Table-II.

The significance of difference between the two populations was tested by χ^2 , using Yates' correction when appropriate for each stressors. This analysis indicated that overall increased frequency of stressors in the depressed patients was paralleled by increased frequency of the most of individual stressors. For nine stressors the difference was significant at 5% level or higher: (1) marital discord; (2) family arguments; (3)

serious financial problem or loss; (4) marital separation; (5) sex difficulties; (6) death of spouse; (7) lack of family support; (8) recurrent physical abuse by husband &/ or his family members; (9) break up with boy/girl friend. Most of the other stressors were also reported more frequently in the depressed patients, but they occurred too infrequently in either population for differences to achieve statistical significance. Seven stressors were reported more frequently in the control patients than in the depressed patients - serious chronic illness in self, serious physical illness diagnosed, serious chronic illness of parent, serious physical injury, death of child, miscarriage and extreme job dissatisfaction. The general frequency of these stressors was also very low and their differences between two groups were not significant.

The types of psychosocial stressors are set out in Table-III to further explore the implication of general increased frequency of most of the individual stressors in depressed patients. The individual stressors were grouped into types according to the social area of activities. For each type, frequencies were again calculated and significance of differences were tested. Nine types were found to be present. Of these, conjugal, family, financial, other stressors, living circumstances and other interpersonal stressors were significantly higher in depressed patients than control patients. In general, conjugal and family stressors were reported four times more frequently in both groups.

Stressors related to physical illness or injury were found significantly higher in control patients than in depressed patients. The difference of the two of the types, legal and occupational failed to reach the level of significance.

Severity of the psychosocial stressors was rated on SPSS and mean score for depressed patients was

Table-I. Comparison of depressed patients and control patients on measures of depression and stressors

Measure	Depressed group	Control group	t test
Depression			
HRSD rating	31.78(SD=6.46)	10.47(SD=4.72)	30.95, P<0.001
Stressors			
Total stressors	1.87(SD=0.98)	0.75(SD=0.74)	10.60, P<0.001
Severity rating on SPSS	3.93(SD=1.33)	2.41(SD= 1.51)	8.78, P < 0.001
Duration in month	7.35(SD=3.31)	6.76(SD=3.71)	1.43, P<0.05

* Data are expressed as $X \pm SD$

Table - II : Frequency of individual stressors

Stressor	Depressed group		Control group		Significance*
	Number (N=135)	%	Number (N=135)	%	
1. Marital discord	42	31.11	14	10.37	<0.001
2. Family arguments	31	22.96	12	8.89	<0.01
3. Serious financial problem or loss	30	22.22	10	7.41	<0.01
4. Marital separation	13	9.63	2	1.48	<0.01
5. Sex difficulties	13	9.63	2	1.48	<0.01
6. Death of spouse	9	6.67	1	0.74	<0.02
7. Lack of family support	9	6.67	1	0.74	<0.02
8. Recurrent physical abuse by husband &/or his family members	7	5.18	1	0.74	<0.05
9. Break up with boy/girl friend	7	5.18	1	0.74	<0.05
10. Extreme poverty	9	6.67	7	5.18	NS
11. Death of parent	6	4.44	1	0.74	NS
12. Marriage	6	4.44	5	3.70	NS
13. Divorce	5	3.70	1	0.74	NS
14. Second marriage of husband	5	3.70	1	0.74	NS
15. Extramarital relationship of husband	5	3.70	0	0.00	NS
16. Rejection/Neglect by husband	2	1.48	0	0.00	NS
17. Serious chr. illness in self	6	4.44	11	8.85	NS
18. Unemployment	6	4.44	5	3.70	NS
19. Loss of job	5	3.70	5	3.70	NS
20. Retirement	4	2.96	2	1.48	NS
21. Neglect of sons	4	2.96	0	0.00	NS
22. Child left home/abroad	2	1.48	0	0.00	NS
23. Death of child	0	0.00	1	0.74	NS
24. Death of elder brother	1	0.74	0	0.00	NS
25. Problem with friends	1	0.74	0	0.00	NS
26. Problem with neighbours	1	0.74	0	0.00	NS
27. Problem with associates	1	0.74	1	0.74	NS
28. Excessive work load	1	0.74	1	0.74	NS
29. Trouble with boss	1	0.74	1	0.74	NS
30. Extreme job dissatisfaction	1	0.74	2	1.48	NS
31. Failure to go abroad for employment	2	1.48	1	0.74	NS
32. Threat to personal safety	2	1.48	0	0.00	NS
33. Husband abroad	5	3.70	1	0.74	NS
34. Husband left home/absconded	2	1.48	0	0.00	NS
35. Arrest	1	0.74	0	0.00	NS
36. Low suit of trial	1	0.74	0	0.00	NS
37. Serious physical illness diagnosed	1	0.74	3	2.22	NS
38. Serious illness of child	2	1.48	2	1.48	NS
39. Serious chronic illness of parent	1	0.74	3	2.22	NS
40. Physical abuse by others	2	1.48	0	0.00	NS
41. Unwanted pregnancy	1	0.74	0	0.00	NS
42. Miscarriage	0	0.00	1	0.74	NS
43. Serious physical injury	0	0.00	2	1.48	NS

* X² with Yates' correction

Table-III : Stress grouped by types

Type	Depressed group	Control group	Significance	Stress included in type
Conjugal	100	26	<0.001	Marriage Discord Divorce Separation Second marriage of husband Rejection/Neglect by husband Extramarital relationship of husband Sex difficulties Death of spouse
Family	53	15	<0.001	Arguments Neglect of sons wegeted by offspring lack of support Death of elder brother Death of parent Death of child Child left home/abroad
Financial	39	17	<0.01	Serious financial problem/loss Extreme poverty
Living circumstances	9	1	<0.02	Threat to personal safety Husband abroad Husband left home/absconded
Other interpersonal	10	7	<0.05	Break up with boy/girl friend Problem with friends Problem with associates Problem with neighbours
Occupational	20	17	NS	Unemployment Loss of job Excessive work load Trouble with boss Extreme job dissatisfaction Failure to go abroad for employment Retirement
Legal	2	0	NS	Arrest Low suit or trial
Physical illness or injury	10	22	<0.05	Serious chr. illness in self Serious physical illness diagnosed Serious illness of child Serious chr. illness of parent Serious physical injury Miscarriage
Other stressors	10	1	<0.01	Unwanted pregnancy Recurrent physical abuse by husband & /or his family member Physical abuse by others

* X² with Yates' correction

3.93(SD=1.33). The mean score for control patients was 2.41(SD=1.51). This indicated that overall severity was found one and half times higher in depressed patients than control patients which was highly significant (Table-I). Among the 135 depressed patients, 83 were severe, 42 were moderate and only 10 were mild. Of these, catastrophic stressors were found in 10 cases. Extreme and severe form of stressors were reported in 39 and 49 cases respectively. The relation of increased severity of stressors with increased severity of depression is shown in Table-IV but no association was found between them.

The mean duration of psychosocial stressors 12 months before the onset of depression was found to be 7.35 months (SD=3.31) in depressed patients and was 6.76 months (SD=3.70) for control patients. This difference was not significant (Table-I). In broad specification, predominantly enduring circumstances were found slightly higher than predominantly acute events in both the depressed and control group with 143(56.52%) events and 52(51.49) events respectively. Though general increased frequencies for all monthly distributions of stressors were found in depressed patients than control patients, the higher significance of differences were found for 6 months, 7 months, 8 months and 12 months duration.

Table-IV : Severity of stressors in relation to severity of depression

Severity of stressors	Severity of depression			Total
	Mild	Moderate	Severe	
None	2	2	10	14
Mild	1	1	2	4
Moderate	1	6	12	19
Severe	5	18	26	49
Extreme	1	12	26	39
Catastrophic	0	3	7	10
Total	10	42	83	135

$$X^2 = 8.52, df = 10, P > 0.05$$

Discussion

In this study, SPSS was used to measure the psychosocial stressors which is designed for the assessment of stressors in axis-IV of the multiaxial evaluation system of the DSM III-R. This scale was not standardized to our socio-cultural setting, hence some difficulties were experienced during their administration on subjects. It contains some events which are not to be considered as stressors and lacks many events

which are perceived as stressful in this setting. Again some severe stressors which are actually not so severe in our society. Reverse is also true in cases of some other stressors. Though slight modification was done to overcome some gross anomaly, yet existence of limitation of scale to quantify stressors in the subjects may not be overcome.

The depressed patients had significantly high HRSD score than control patients thereby formed two distinct group. The results clearly indicate that depressed patients reported two and half times as many psychosocial stressors as of control patients before the onset of depression. This result was highly significant and has the general similarities with the findings of other studies^{5,10-14}. In one prominent study, depressed patients reported three times as many stressors as general population⁵. Another recent survey reported 40% more stressors in depressed patients than controls¹⁴. As argued by Brown and Harris, these stressors may have played an aetiological role in the depression, since they occurred before the onset and thereby independent of the disorder¹⁰.

In the present study, though overall increased frequency of the individual stressors was found in depressed patients than control patients, nine events: marital discord, family arguments, serious financial problem or loss, marital separation, sex difficulties, death of spouse, lack of family support, extreme poverty, recurrent physical abuse by husband &/or his family members, break up with boy friend or girl friend had significant differences. These findings are more or less similar with other reports where these stressors were designated as undesirable, severe and exit events,^{5,10-14,17-20}. Social support and depression was inversely related in a number of studies^{14,18,21,22}. Similar report was also found in our study. However, for many of the stressors, frequencies in both group were too low for reliable conclusion. The results obtained by combining stressors into types were therefore particularly revealing. This analysis revealed that except the physical illness or injury, all the types of stressors were in fact more frequent in the depressed patients and most of them reached the higher level of significance. Greatest difference was found among conjugal and family stressors which indicates that relationship problem is the main stressor significantly associated with depression. Similar reports were found in other observation^{5,13,17-19}. Stressors related to physical illness or injury was found significantly higher in control patients than depressed patients. This revealed the fact that controls in this study were basically the hospitalized physically ill patients and a portion of their illness were considered as stressor.

Overall severity of the psychosocial stressors was found much higher in depressed patients than control patients. From the above explanation it may be concluded that this difference could be more higher if the controls were taken from general population because serious illness or injury in self were considered as extreme form of stressor in SPSS. No significant relation (association of attributes) was found between increased severity of depression and increased severity of stressors. This strongly suggests that psychosocial stressors can precipitate the attack but depth of depression depends on several other factors e. g. genetic, biochemical factors, social support and controllability of stressors.

Overall, there was no significant difference in duration of psychosocial stressors in 12 months before the onset of depression or current evaluation between depressed patients and control patients in month by month distributions. The difference in the level of stressors first 4 months before the onset of depression was found to be insignificant. The mean duration of stressors for depressed patients were 7 months. This result is consistent in general with the report that depressed patients were found to experience more events in the 6 month before the onset of depression and partly inconsistent with other studies where significant elevation of the stressors were found 3 weeks before onset but markedly threatening stressors were elevated over 38 weeks¹⁰.

Most of the stressors reported by depressed patients were part of the everyday experience. the question still remains of why such stressors cause depression in some individual but not in others. So, it is clear that other elements must be important in determining whether an individual will be depressed. Such elements may include personality and ability to cope with the stressors etc.

Conclusion

The result of this study point to that psychosocial stressors have a definite causal relationship with depression. Moreover, they point to the better definition of certain types of stressors which are particularly important in this respect.

Whether psychosocial stressors precipitate the depression or not must depend on other factors which requires further exploration.

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