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Psychosocial Stressors in Depression and Schizophrenia

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Summary:

A controlled comparison between 65 depressed patients and equal number of schizophrenic patients was conducted on the measures of psychosocial stressors in the 12 months before the onset of illness. Overall, depressives reported significantly more stressors than schizophrenics and this excess was limited to family arguments, marital discord and sex difficulties. The schizophrenics reported significantly higher frequency of lack of family support. No significant difference of severity of stressors was found between the two groups. The depressives reported excess of stressors extended over a longer period before the onset of illness than schizophrenics. The findings support the quantitative and qualitative influence of stressors in the genesis of these two psychiatric disorders.

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Introduction:

It is well established from a large body of research that there is definite causal relationship between psychosocial stressors and psychiatric disorders. This is particularly evident for depressive disorder where depressed patients experienced significantly excess of stressors prior to the onset of disorder[1-5]. Schizophrenic patients were also reported to experience more stressors before the onset of the disease[6-10].

Comparative investigations between depressives and schizophrenics reported that though depressives experienced more stressors than schizophrenics, this excess involved only certain types of stressors. Depressives reported more exit, severe and varieties of undesirable stressors particularly those involving interpersonal relationships than schizophrenics[9,11,12]. Again it is found that differences between depressives and normal controls involved different types of stressors and extended over a long period of time before onset than did differences between schizophrenics and controls[13].

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The present study was designed to compare the measures of psychosocial stressors in the one year before the onset of illness between depressed patients and schizoprenic patients. Different observations will give some idea about the extent of relationship between stressors and these two major psychiatric problems in Bangladesh.

Materials and method:

The study was conducted at Institute of Mental Health and Research and psychiatry department of Sir Salimullah Medical College and Mitford Hospital in Dhaka. Both the institutions have combined psychiatric outpatient and inpatient department. The duration of study was January, 1993 to June, 1993. A consecutive series of 135 depressed patients (100 outpatients and 35 inpatients) and 100 schizophrenic outpatients satisfying DSM III-R diagnostic criteria for major depressive disoder and schizophrenia were collected[14]. The exclusion criteria for depressive disorder was depression secondary to other disorders and that for schizophrenia was mental retardation, substance abuse, epilepsy or otherwise complicated or doubtful conditions. For the present analysis, 65 cases from both groups were matched completely on sociodemographic variables. Of these, 40 were male and 25 were female. The male-female ratio was 1:0.62. Their age ranged between 16 and 37 years with a mean of 24.77 years (SD±4.92). Majority of the subjects were either

educated upto primary level or illiterate with 22 and 19 cases respectively. Graduates were only two. Among the subjects, 17 were housewives, 11 service holders, 10 unemployed and the rest were of other occupations. Urban-rural distributions were 34 and 31 cases respectively. They were predominantly of lower or middle income group with 36 and 28 cases respectively and only one case in each group were of higher income status. Thirty four cases were unmarried and 27 married. Only three and one cases respectively were found separated and divorced

All the patients of the both groups were interviewed by one of the authors with informed consent. In addition to psychosocial stressors, the interview covered sociodemographic variables and physical and mental health status.Psychosocial stressors were assessed on the basis of axis-IV of the multiaxial evaluation system of DSM III-R which provides the Severity of Psychosocial Stressors Scale (SPSS)[14]. Stressors during the 12 months prior to the onset of depression or schizophrenia were recorded. Individual stressors and their types were considered according to this scale with slight modification which was necessary in our socio-economic and cultural context. The severity of stressors were evaluated and rated according to code 0-6 given in the SPSS. The indiviaual stressors were grouped into month by month durations and further specified as either predominantly acute events (duration less than six months) or predominantly enduring circumstances (duration greater than six months).

The data was processed and comparison was made between depressive and schizophrenic group. Statistical analysis involved two-tailed t-tests and chi-square tests with Yates' correction.

Results:

The depressed patients and schizophrenic patients were compared on measures of psychosocial stressors. The depressives reported a total of 164 stressors, with a mean of 2.52 stressors (SD±0.95) while schizophrenics reported a total of 95 stressors, with a mean of 1.46 stressors (SD±.93). The difference was significant. Overall, depressives experienced approximately 75% more stressors than schizophrenics (Table-I).

Frequency of individual psychosocial stressors were next examined and for each stressor the significance of difference between the two groups were tested. This analysis indicated that though overall increased frequency of stressors in the depressives was paralleled by increased frequency of the most of the individual stressors but for only three stressors, the differences were significant at 2% level or better: (1) family arguments, (2) sex difficulties; (3) marital discord. Most of the other stressors were also reproted more in the depressives, but they occurred too infrequently in either population for differences to achieve statistical significance. Eight stressors were reported more frequently in the schizophrenics: lack of family support, marriage, birth of first child, neglect of parent, problem with neighbours, excessive work load, death of child and serious physical injury. Among them, only one stressor namely, lack of family support reached the level of significance at 1% level. Otherwise, general frequency of these stressors was also very low and difference in their presence between two groups were not significant (Table-II).

The types of psychosocial stressors are set out in Table -III to explore further possible

Table-I

*Comparison of depressed patients and schizophranic patients on measures of psychosocial stressors**

Measure	Depressed group	Schizophrenic group	t-test
Total stressors	2.52±0.95	1.46±0.93	2.95;p<0.01
Severity rating on SPSS	3.98±1.08	3.57±1.31	1.95;p>0.05
Duration of stressors in months	7.7 ±3.47	6.2 ±3.8	1.85;p>0.05

* Data are expressed as mean ± SD

Table-II

Frequency of individual psychosocial stressors

	Depressed group		Schizophrenic group		Significance*
	Number (N=65)	%	Number (N=65)	%	
1. Family arguments	30	46.15	13	20.00	<0.01
2. Sex difficulties	11	16.92	0	0.00	<0.01
3. Marital discord	25	38.46	0	16.92	<0.02
4. Serious financial problem or loss	20	30.77	10	15.38	NS
5. Unemployment	6	9.23	4	6.15	NS
6. Broke up with boy/girl friend	5	7.69	2	3.08	NS
7. Recurrent physical abuse by husband	5	7.69	0	0.00	NS
8. Extreme poverty	5	7.69	3	4.61	NS
9. Marital separation	4	6.15	2	3.08	NS
10. Divorce	4	6.15	1	1.54	NS
11. Husband abroad	4	6.15	1	1.54	NS
12. Trouble with boss	4	6.15	3	4.46	NS
13. Serious chronic illness in self	4	6.15	0	0.00	NS
14. Extramarital relationship of husband	3	4.61	0	0.00	NS
15. Loss of job	3	4.61	2	3.08	NS
16. Rejection/Neglect by husband	2	3.08	1	1.54	NS
17. Death of parent	2	3.08	0	0.00	NS
18. Extreme job dissatisfaction	2	3.08	2	3.08	NS
19. Failure to go abroad for employment	2	3.08	0	0.00	NS
20. Serious illness of other family member	2	3.08	1	1.54	NS
21. Physical abuse by others	2	3.08	1	1.54	NS
22. Death of spouse	1	1.54	0	0.00	NS
23. Second marriage of husband	1	1.54	0	0.00	NS
24. Death of family member	1	1.54	0	0.00	NS
25. Problem with friends	1	1.54	1	1.54	NS
26. Problem with associates	1	1.54	1	1.54	NS
27. Failure in examination	1	1.54	1	1.54	NS
28. Threat to personal safety	1	1.54	0	0.00	NS
29. Husband left home/absconded	1	1.54	0	0.00	NS
30. Arrest	1	1.54	0	0.00	NS
31. Law suit or trial	1	1.54	0	0.00	NS
32. Serious chronic illness of child	1	1.54	0	0.00	NS
33. Unwanted pregnancy	1	1.54	0	0.00	NS
34. Lack of family support	2	3.08	15	23.08	<0.01
35. Marriage	3	4.61	7	10.77	NS
36. Birth of first child	1	1.54	4	6.25	NS
37. Neglect of parent	0	0.00	2	3.08	NS
38. Death of child	1	1.54	2	3.08	NS
39. Problem with neighbours	2	3.08	3	4.61	NS
40. Extreme work load	2	3.08	3	4.61	NS
41. Serious physical injury	0	0.00	1	1.54	NS

*x^2 with Yates' correction

NS = not significant

Table-III

Stressors grouped by types

Type	Depressed group	Schizophrenic group	Significance*	Stressors included in type
Conjugal	56	22	<0.001	Marriage, Discord, Divorce, Separation, Death of spouse, Sex difficulties, Second marriage of husband, Extramarital relationship of husband Recurrent physical abuse by husband, Rejection/Neglect by husband
Family	37	35	NS	Arguments, Neglect of parent, Lack of support, Death of parent, Death of closed family member, Death of child, Birth of first child
Financial	25	13	NS	Serious financial problem/loss Extreme poverty
Occupational	18	17	NS	Unemployment, Loss of job Excessive work load Trouble with boss, Extreme job dissatiafaction, Failure to go abroad for employment, Failure in examination
Other interpersonal	10	4	NS	Broke up with boy/girl friend Problem with friends Problem with associates Problem with neighbours
Living circumstances	6	1	NS	Threat to personal safety Husband abroad, Husband left home/ absconded
Physical illness or injury	7	2	NS	Serious chronic illness in self Serious illness of family member Serious illness of child Serious physical injury
Legal	2	0	NS	Arrest, Law suit or trial
Other stressors	3	1	NS	Physical abuse by others Unwanted pregenancy Physical abuse by others

* x^2 with Yates' correction

differences. 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. Of the nine types, only conjugal type of stressors was significantly higher in depressives than schizoprenics. The stressors related to financial, other interpersonal, physical illness or injury and living circumstances were also found more in depressives than schizophrenics although differences did not achieve statistical significance. In the family and occupational affairs frequencies were similar in both groups. Other types were though found higher in depressives, they were too infrequent to reach the statistical significance.

As far as the severity of the psychosocial stressors is concerned, mean score for depressives on SPSS severity rating was 3.98 (SD±1.08) and that for schizophrenics was 3.57 (SD±1.31). This indicated that overall severity of the stressors was found slightly higher in depressives than schizophrenics but the difference here was not significant (Table-I). Further, the severity of the stressors was recorded according to the frequency of each code of severity on SPSS and differences of significance were tested as before between two groups. It also revealed that no significant difference was found between two groups in all levels of severity. Only, the extreme form of severity was found with greater difference of frequency in depressives but again this difference did not reach significant level (Table-IV).

The mean duration of psychosocial stressors was found 7.7 months in depressive group and 6.2 months in schizophrenic group. The difference was not significant (Table-I). Predominantly enduring circumstances were found more in depressives with 97 (59.15%) events and predominantly acute events were found excess in schizophrenics with 55(57.89%) events. Only significantly higher frequency of predominantly enduring circumstances were found in depressives than schizophrenics (P<0.001). When monthly distributions were tested between the two groups, it revealed that significantly higher differences were found in eight months, nine months, 10 months and 12 months in depressives than schizophrenics at 5% level or higher.

Table—IV

Severity of stressors

Severity		Depressed group		Schizophrenic group		Significance*
Code	Term	Number	%	Number	%	
1	None	3	4.61	9	13.85	NS
2	Mild	2	3.08	5	7.69	NS
3	Moderate	11	16.92	12	18.46	NS
4	Severe	28	43.08	30	46.15	NS
5	Extreme	19	29.23	9	13.85	NS
6	Catastrophic	2	3.08	2	3.08	NS
	Total	65	100	65	100	

*x^2 with Yates' correction NS= not significant

Discussion:

Before the evaluation of the findings of the study, the possibility must be considered that there might be reporting or methodological artifacts. Retrospective reporting of the experience of psychosocial stressors before the onset of illness may be distorted by the presence of psychiatric disturbance. Onset is harder to date in schizophrenics than depressives and some patients tend to drift into illness without clear-cut onset. Moreover, patients may search for events to explain the onset of illness. Stressors which occur after the onset and are consequences of the disorder may be confused with its causes. Multiapproach techniques were applied to overcome these problems. Investigation was delayed until after improvement and information also obtained from the informants. A high agreement between patients and relatives was found in our study which is similar to a previous report [13].

SPSS was used to measure the psychosocial stressors which was not standardized in our socio-cultural setting, hence some difficulties were experienced during their administration on subjects. It contains some events which are not considered as stressors and lacks many events, are perceived as stressful in this setting. Again some severe stressors are actually not so severe in our society. Reverse is also true in case of some other stressors. Though slight modification was done to overcome some gross anomaly, yet we admit the existence of limitation of scale to quantify stressors on the subjects.

In this study, overall, depressives experienced 75% more stressors before the onset of the disease than did schizophrenics. The finding has the general similarities with the findings of other studies.[6-10] In a previous study, depressives and matched schizophrenics were compared with respects to life events experienced during the six months before the onset of illness and overall the depressives experienced approximately 50% more events than the schizophrenics.[9] The excess of stressors in depressives involved only certain types of strtessors in present study. The depressives reported significantly excess of family arguments, sex difficulties and marital discord. Financial problem or loss was also found notably higher in depressives. In a broad category, only conjugal type of stressors were found significantly higher in depressives than schiophrencs. Almost all stressors in this type were undesirable or exit in nature. Two other types, financial and physical illness or injury were also found more in depressives with suggestive differences. This result is more or less consistent with previous findings[9,12,13]. In one of the studies, depressives reported more exit and undesirable events, particularly those involving interpersonal arguments and events related to finance and health[9]. In contrast, schizophrenics experienced significantly excess of lack of family support than did depressives in our study which indicates its strong relationship in developing schizophrenia. It was suggested in a previous report that schizophrenics may be particularly sensitive to disruption of family life.[15] Though entrance events like marriage, birth of first child were experienced more frequently by schizophrenics with notable differences, no conclusion can be drawn about the relationship of entrance or desirable events in the genesis of schizophrenia as the differences were not significant between the two groups. Stressors related to family and occupational events were reported at about the same levels by the both groups, suggesting that they were involved in the same extent in developing both the disroders.

Lack of significant difference in mean severiety between the two groups suggests that severity of the stressors has equal effect in the genesis of schizophrenia and depression. Analysis of the individual severity coding also revealed no significant difference in all levels of severity between two groups which is in favour of the above statement. However, extreme form of severity was found more in

depressives with a suggestible difference between the two groups which indicates that higher grade of severity may have more influence on the onset of depression than schizophrenia.

Though not significant, mean duration of stressors in depressive group before the onset of illness has been found longer than that of schizophrenic group. The broad categories of duration further confirmed this statement where predominantly enduring circumstances were found significantly higher in depressives than schizophrenics. In month by month recording of stressors between two groups revealed that the longer duration of stressors in depressives was particularly evident in five months, nine months, 10 months and 12 months at significant levels. These findings simulate with the previous observation where the excess of stressors were reported to extend over a longer period before onset for depressives than for schizophrenics.[13]

The result of the study points out that the psychosocial stressors are involved both quantitatively and qualitatively in the genesis of depression and schizophrenia, but the relationship is stronger for depressives. Moreover, it specifies certain types of stressors which are particularly important in this respect. The role of severity of the stressors in genesis of these disorders needs further investigations.

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