

## PSYCHOSOCIAL STRESSORS IN DELIBERATE SELF HARM

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### Abstract

A sample of 115 consecutively admitted deliberate self-harm patients were matched on sociodemographic variables with an equal number of medical, surgical and gynae-obstetric inpatients to investigate relationship between psychosocial stressors and deliberate self-harm. Psychosocial stressors were assessed by the Severity of Psychosocial Stressors Scale (SPSS) of axis IV of the multi-axial evaluation system of DSM III-R. The frequency of occurrence of stressors in the year immediately prior to the self-harm was compared with comparable one year period in the control patients. All the self-harm patients had reported presence of psychosocial stressors where as that was found in only 62% of the control patients. Despite overlap in quantum of stressors between two group, results of the controlled comparison indicated that overall, the deliberate self-harm patients had reported two and half times as many psychosocial stressors as the control patients prior to the self-harm. Greatest significant differences were among the conjugal, family and other interpersonal stressors. Overall severity of stressors was also significantly higher in self-harm patients than the control patients. Self-harm patients were found to have more psychosocial stressors in the one month before the self-harm. The findings support the importance of psychosocial stressors in causation of deliberate self-harm.

### Introduction

From the clinical point of view it is found that most of the psychiatric disorders are usually associated with the psychosocial stressors and almost all the deliberate self-harm patients attend in different psychiatric units of the hospitals of Dhaka city mainly by referral from other units including emergency department, report psychosocial stressors shortly before their suicidal act.

Since 1955 there has been a substantial increase in deliberate self-harm with rates varying from 100-300 per 100000,<sup>1,2</sup> Deliberate self-harm is more frequent in women than men (about 3 to 1) and is more common among young people, two thirds are under 35 years of age; particularly high rates are found among females aged 15-30 years, the lower social classes are over represented and are frequently living in deprived, crowded, urban areas.<sup>3,4</sup>

The highest rates for both men and women are among the divorced, teen age wives and younger single men and women.<sup>5,6</sup>

Retrospective studies of psychiatric patients and general population controls indicate that stressful psychosocial stressors are experienced with a greater than expected frequency prior to onset of deliberate self-harm. In a prominent study, deliberate self-harm patients reported four times as many life events as general population controls.<sup>7</sup> The peak of life events in the month before the attempt indicates a particularly imminent relationship between events and reaction. The events were quite diverse, but particularly more threatening group of

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events like undesirable events with higher rated stressfulness which were beyond patient's control. Serious argument with spouse was reported most frequently by deliberate self-harm patients and the group of other interpersonal problems in general were reported by a significant number of them.<sup>7</sup> The events like recent quarrel with spouse, girl friend or boyfriend were particularly common found in another report.<sup>8</sup> These distinguish deliberate self-harm patients from other patient group.

On the other hand, incidence of some other conditions in self-harm patients are known and are much lower. In the previously mentioned study, only 21% of deliberate self-harm patients reported exit events in the 6 months before the act of self-harm as opposed to 4% of matched controls.<sup>7</sup> In another study, about two-thirds of patients had some kind of marital problem, half of the men had been involved in an extramarital relationship and further quarter said that their wives had been unfaithful.<sup>8</sup> Among unmarried, a similar proportion had difficulties in their relationship with sexual partners.<sup>8</sup> In other studies, the main reason for deliberate self-harm was found relationship problems.<sup>9,10,11</sup>

Unemployment is prominent stressor found frequently in deliberate self-harm patients. In one study, 49.1% male and 20.7% female deliberate self-harm patients were unemployed.<sup>6</sup> In another study in Bristol, one third of men who deliberately harmed themselves were unemployed.<sup>12</sup> Similar report claimed a close relationship between levels of unemployment and deliberate self-harm.<sup>13</sup> A background of poor physical health was found common in deliberate

self-harm patients<sup>5</sup> and early parental loss was significantly associated with them which was reported in different studies.<sup>10,14</sup>

The present study was designed to assess the pattern of psychosocial stressors in deliberate self-harm patients and to find out the relationship between psychosocial stressors and deliberate self-harm.

Incidence of deliberate self-harm is increasing gradually in our country and psychosocial stressors contribute to the onset of deliberate self-harm. This study may give some ideas about the relationship between psychosocial stressors and deliberate self-harm, which in turn increase the awareness about the existence of psychosocial stressors in self-harm patients. The different observations about the extent of psychosocial stressors in self-harm patients may ultimately be useful in treatment and prevention of deliberate self-harm by appropriate management of the stressors and counselling the patients to cope with the environment respectively.

### Materials and Methods

The study was carried out in the Sir Salimullah Medical College Mitford Hospital of Dhaka city. A consecutive series of representative sample of deliberate self-harm patients admitted into the different units (viz. medicine, surgery, psychiatry and casualty units) from January, 1992 to July, 1992 were included in the study. The patients were first seen and treated in the emergency department and then admitted into the different units. Others who only attended the emergency department, were selected by the emergency medical officer, on duty, on the basis of the severity of the condition of the patients. A

small number of cases who fulfilled the above criteria were excluded from the study, because some left the hospital against the advice of the authority before they could be interviewed, and a few gave clearly false and contradictory informations.

One hundred fifteen deliberate self-harm patients of either sex and any age were selected as study group. Deliberate self-harm in this study was defined as any deliberate act of self poisoning and self injury. Subjects were interviewed as soon as possible after their recovery from any adverse effects of their self-harm. Another 115 medical, surgical and gynae-obstetric in-patients without deliberate self-harm or psychiatric disorder were selected from the same hospital as control group. All doubtful cases were excluded. Two group were matched according to age, sex, education, occupation, marital status and socio-economic condition. The subjects in the control group were comparable with patients of study group though possibility of bias could not be completely eliminated.

The patients were interviewed by the authors with pretested questionnaire after informed consent in comfortable private surrounding and before data collection commenced, tests of cognitive function were administered. Information were also obtained from relatives or friends and any other persons already attempting to help the patient. The questionnaire consisted of questions about socio-demographic parameters, deliberate self-harm and psychosocial stressors.

Suicidal intent was assessed by considering five circumstances including planning in advance, precaution to avoid discovery, no attempts to obtain help afterwards, dangerousness of method and

afterwards, dangerousness of method and final acts.<sup>3</sup>

Psychosocial stressors were measured on the basis of axis-IV of the multi-axial evaluation system of DSM III-R operational criteria.<sup>14</sup> Axis IV provides the severity of psychosocial stressors scale (SPSS) for coding the overall severity of a psychosocial stressor or multiple psychosocial stressors that have occurred in the year preceding the current evaluation. So, the time period for which stressors were recorded for the deliberate self-harm patients was the one year immediately prior to the deliberate self-harm. Individual stressors and their types were considered according to this scale with slight modification which was necessary in our socio-economic-cultural context.

The rating of the severity of the stressor was based on the clinical assessment of the stress considering the following: the amount of change in the person's life caused by the stressor, the degree to which the event was desired and under the persons control, and the number of stressors. The severity was rated according to code 0-6 given in SPSS.

In evaluating the stressors more than one also judged where it was relevant and the severity rating was recorded that of the most severe stressor. However, in the case of multiple severe or extreme stressors, a higher rating as either: predominantly acute events (duration less than six months) or predominantly enduring circumstances (duration greater than six months).

The data was recorded in individual sheet immediately after completion of desired data collection. Comparison was made between study group and control group, and between demographic groups of self-harm patients. Statistical analysis involved

Chi-square tests Yates' correction for continuity. Data were processed by a computer.

## Results

In total 115 deliberate self-harm patients were collected. Their socio-demographic and historical characteristics were shown in 63 were females and 52 were males. Their age ranged between 15-53 years with a mean of 24.07 years (SD=7.87). Deliberate self-harm was more common among the younger age group and 101 (87.82%) cases were under the age of 30. The females predominated over the males. The female to male ratio here was 1.21:1. Highest number of deliberate self-harm was seen among the unmarried (51.30%) and married (41.74%) was the second in order. The table reveals that housewives (30.40%) and students (21.74%) were vulnerable subjects for self-harm and unemployed (15.65%) was the third vulnerable occupation. Majority of the subjects were either illiterate (39.13%) or primarily educated (21.74%). Only 2.61% cases were found to have education higher than higher secondary certificate level. About 66.96%

cases were urban and 33.04% cases were rural in origin. Subjects of low economic group (60.87%) were more prone to deliberate self-harm and only 4.35% of the cases came from higher economic group. Only 13.78% of the cases had the previous history of self-harm and most of them had single attempt.

All the deliberate self-harm patients had reported the presence of psychosocial stressors within one year prior to the deliberate self-harm. In contrast, psychosocial stressors were found in only 62 of the control patients. Sixty nine self-harm patients had more than one events (two, three or four) but that was found in 24 of the control patients. The deliberate self-harm patients reported a total of 220 stressors, with a mean of 1.91 per patient. The control patients reported a total of 89 stressors, with a mean of 0.76 patients. This revealed that overall, the deliberate self-harm patients had reported two and half times as many psychosocial stressors as the control patients. The difference of presence of stressors between the two groups was highly significant ( $P < 0.001$ ).

**Table I:** Socio-demographic and historical characteristics of deliberate self-harm patients.

Characteristics	Number (N=115)	Percent	Characteristics	Number (N=115)	Percent
<b>Sex:</b>			<b>Economic background:</b>		
Male	52	46.96	Higher	5	4.35
Female	63	53.04	Middle	40	34.78
M/F ratio-1:1.21			Lower	70	60.87
<b>Education:</b>			<b>Marital status:</b>		
Illiterate	45	39.13	Unmarried	59	51.30
Primary	25	21.74	Married	48	41.74
Secondary	18	15.65	Separated	5	4.35
SSC	16	13.91	Divorced	1	0.87
HSC	8	6.96	Widowed	2	1.74
Graduate	3	2.61			
<b>Occupation:</b>			<b>Previous deliberate self-harm:</b>		
Housewife	35	30.43	Absent	98	85.22
Household worker	7	6.09	Present		
Service	10	8.70	Single	12	10.43
Business	8	6.95	Double	2	1.74
Cultivation	4	3.48	Triple or more	3	2.61
Minial worker	3	2.61	<b>Age:</b>		
Student	25	21.74	15-20	44	36.26
Self-employed	5	4.35	21-25	42	36.52
Unemployed	18	15.65	26-30	15	13.04
			31-35	6	5.22
			36-40	2	1.74
			41-45	1	0.87
			46-50	1	0.87
			51-55	4	3.48
<b>Social background:</b>			<b>Mean: 24.07 years (SD)=7.87)</b>		
Rural	38	33.04	<b>Range: 15-53 years.</b>		
Urban	77	66.96			

**Table-II:** Distribution of deliberate self-harm patients and control patients according to the frequency of individual psychosocial stressors.

Psychosocial stressors	Self-harm patients		Control patients		Significance*
	Number (N=115)	Percent	Number (N=115)	Percent	
1. Family arguments	69	60.00	10	8.70	<0.001
2. Marital discord	34	29.56	7	6.09	<0.001
3. Recurrent physical abuse by husband and/or his family member	7	6.09	0	0.00	<0.01
4. Broke up with boy friend or girl friend	11	9.56	1	0.87	<0.01
5. Problems with friend	9	7.83	2	1.74	<0.05
6. Marital separation	5	4.35	2	1.74	NS
7. Divorce	1	0.87	1	0.87	NS
8. Death of spouse	2	1.74	1	0.87	NS
9. Serious financial problems	15	13.04	7	6.09	NS
10. Extreme poverty	7	6.09	8	6.96	NS
11. Extreme job dissatisfaction	3	2.61	2	1.74	NS
12. Loss of job	5	4.35	5	4.35	NS
13. Unemployment	10	8.70	6	5.22	NS
14. Engagement	6	5.22	2	1.74	NS
15. Marriage	7	6.09	5	4.35	NS
16. Problems with associates	3	2.61	1	0.87	NS
17. Problems with neighbors	0	0.00	1	0.87	NS
18. Serious physical illness diagnosed	1	0.87	4	3.48	NS
19. Serious chronic illness in self	10	8.70	13	11.30	NS
20. Death of a parent	2	1.74	0	0.00	NS
21. Arrest	1	0.87	0	0.00	NS
22. Law suit or trial	1	0.87	1	0.87	NS
23. Threat to personal safety	2	1.74	0	0.00	NS
24. Physical assault by others	0	0.00	1	0.87	NS
25. Unwanted pregnancy	2	1.74	2	1.74	NS
26. Miscarriage	1	0.87	1	0.87	NS
27. Neglect of parent	2	1.74	1	0.87	NS
28. Death of child	2	1.74	1	0.87	NS
29. Severe illness of child	2	1.74	2	1.74	NS

\* $\chi^2$  with Yates' correction

**Table-III:** Distribution of deliberate self-harm patients and control patients according to the type of psychosocial stressors.

Type	Self-harm patients	Controls Patients	Significance*	Stressors included in Type
Conjugal (marital & nonmarital)	55	18	<0.001	Engagement Marriage Discord Divorce Separation Death of spouse
Family	75	12	<0.001	Arguments Neglect of parent Death of parent Death of child
Other Interpersonal	23	5	<0.001	Break up with boy friend or girl friend Problems with friends problems with neighbours problems with associates
Occupational	18	13	NS	Unemployment Loss of job Extreme job dissatisfaction
Living circumstances	2	0	NS	Threat to personal safety
Financial	22	15	NS	Serious financial problems Extreme poverty
Legal	2	1	NS	Arrest Law suit or trial
Physical illness or injury	14	21	NS	Serious physical illness diagnosed Serious chronic illness in self Serious illness of child Miscarriage
Other psychosocial stressors	9	3	NS	Unwanted pregnancy Recurrent physical abuse by husband and/ or his family members Physical abuse by others

\*  $\chi^2$  with Yates' correction

**Table-IV:** Distribution of deliberate self-harm patients according to the severity of psychosocial stressors in relation with suicidal intent.

Suicidal intent

Severity	Suicidal intent						Total	
	Absent		High intent		Low intent		Number	Percent
	Number	Percent	Number	Percent	Number	Percent		
Mild	31	60.79	0	0.00	8	25.81	39	33.91
Moderate	15	29.41	6	18.19	9	29.03	30	26.09
Severe	1	1.96	11	33.33	7	22.58	19	16.52
Extreme	4	7.84	12	36.36	6	19.35	22	19.13
Catastrophic	0	0.00	4	12.12	1	3.23	5	4.35
Total	51	100.00	33	100.00	31	100.00	115	100.00

$\chi^2=52.05, df=8, P<0.001$

**Table-V** : Distribution of psychosocial stressors between self-harm patients and control patients according to their duration.

Duration	Stressors in self-harm patients		Stressors in control Patients		Significance*
	Number (N=115)	Percent	Number (N=115)	Percent	
Predominantly acute events (Less than six months)	(132)	(60.00)	(43)	(49.42)	(<0.001)
1 month	57	25.90	10	11.49	<0.001
2 months	20	9.09	8	9.19	<0.05
3 months	17	7.73	7	8.05	NS
4 months	11	5.00	5	5.75	NS
5 months	12	5.45	5	5.75	NS
6 months	15	6.82	8	9.19	NS
Predominantly enduring circumstances (greater than six months)	(88)	(40.00)	(44)	50.58)	(<0.001)
7 months	10	4.55	6	6.90	NS
8 months	8	3.64	7	8.05	NS
9 months	14	3.66	6	6.90	NS
10 months	15	6.82	8	9.19	NS
11 months	11	5.00	5	5.75	NS
12 months	30	13.64	12	13.79	<0.01
Total psychosocial stressors	220	100.00	87	100.00	

\* $\chi^2$  with Yates' correction

The frequency of psychosocial stressors among the self-harm patients and control patients are shown in Table-II. For each stressor, the significance of difference between the two populations was tested by  $\chi^2$ , using Yates' correction where appropriate. This analysis indicated that the overall increased frequency of stressors in the deliberate self-harm patients was paralleled by increased frequency of the most of individual stressors. For five stressors the difference were significant at 5% level or better: (I) Family arguments; (II) marital discord; (III) recurrent physical assault by husband and/or his family members; (IV) break up with boy friend or girl friend (V) problems with friends. Most of the other stressors were also reported more frequently in the deliberate self-harm patients, but they occurred too,

infrequently in either population for differences to achieve statistical significance. Five stressors were reported more frequently in the control patients than in the self-harm patients- serious physical illness diagnosed, serious chronic illness in self, extreme poverty, problem with neighbors & physical assault by very low and their difference between two groups was 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 deliberate self-harm patients. The individual stressors were grouped into types according to the social area of activities. For each type, frequencies were again calculated in terms of number of individuals experiencing at least one stressor in that type, and significances of difference were tested. Nine types were

found to be present: Conjugal, family, other interpersonal, occupational, living circumstances, financial, legal, physical illness or injury, and other stressors. Three of the categories--- conjugal, family, and other interpersonal, had significant difference between self-harm patients and control patients. Conjugal stressors were found three times, family stressors were found six times, and other interpersonal stressors were found five times more in self-harm patients than control patients. Stressors related to physical illness or injury were found slightly higher in control patients than deliberate self-harm patients.

According to severity rating code of SPSS, overall severity was found much higher in self-harm patients. Code-1 indicates absence of stressors which was entirely found in control patients. Mild form of severity was found two and half times more and moderate form were found about two times higher in self-harm patients than control patients. Their difference were significant at the 2% level or better. Severe form were also found about two times higher in self-harm patients than control patients but the difference just failed to reach the level of significance. The extreme category were found slightly higher in self-harm patients and the difference failed to reach the statistical significance. The catastrophic form of severity were also reported higher in the self-harm patients but their number is too small to achieve statistical significance.

Table-IV shows the relation of severity of psychosocial stressors with suicidal intent in deliberate self-harm patients. Suicidal intent was absent in 51 (44.35%) case. High intent and low intent were found present in 33 (28.70%) and 31 (26.96%) cases respectively. Significantly higher

association between increased severity of stressors and seriousness of the suicidal intent were found ( $P < 0.0001$ ).

Table-V Shows the duration of psychosocial stressors. Deliberate self-harm patients had much more predominantly acute events (60%) than predominantly enduring circumstances (40%). In contrast, predominantly acute events and predominantly enduring circumstances were found about 50% each in control patients. The differences were highly significant ( $P < 0.001$ ) for the predominantly acute events and predominantly enduring circumstances in self-patients than control patients. Though general increased frequency for all the distribution of duration of stressors was found in deliberate self-harm patients than control patients the significant differences were found for 1 month, 2 months, and 12 months duration at 5% level or higher. In deliberate self-harm patients, highest number of stressors (25.90%) had occurred within one month before the suicidal attempt.

### Discussion

This study was made on deliberate self-harm patients who were admitted to the hospitals. Suicidal act is still being regarded as legal offence and there is marked socio-religious prejudice against suicide. There is general tendency to avoid hospital in such cases or truth is frequently distorted. Consequently there is marked under-registration. Hence bias due to selection is unavoidable under these circumstances.

There is also some limitation to use psychiatric instrument in our set up where people are not acquainted with this type of study and do not have a clear

idea of the purpose of the study even after adequate explanation. As the cases in the hospitals are marked as 'police case' there is a chance of developing resistance against the investigators and there may also be a tendency to hide the fact and give socially acceptable answers. However, efforts were taken to get appropriate responses by using multiapproach technique.

In this study, SPSS was used to measure the psychosocial stressors in deliberate self-harm patients which is designed for the assessment of psychosocial stressors in axis-IV of the multiaxial evaluation system of the DSM III-R<sup>15</sup>. This scale 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 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 we admit the existence of limitation of the scale to quantify stressors in the subjects. Bearing in mind the above all limitations, the findings of this study need evaluation.

All the deliberate self-harm patients had reported the presence of psychosocial stressors. In contrast, psychosocial stressors were found in 62 of the control patients. This result is consistent with the reports of different studies studies which indicate that psychosocial stressors are frequently associated with deliberate self-harm.<sup>7,10</sup> Most of the self-harm patients had two, three or four stressors where as most the control patients had single stressor. This difference was significant in higher level

which again support the above reports of other studies. It is revealed in this study that deliberate self-harm patients reported two & half times as many psychosocial stressors as of control patients. This result has the general similarities with the findings of other studies. In one important study, self-harm patients had reported four times as many life events as general population. This finding is more higher than our finding. In our study, the controls were the hospitalized patients from different wards, rather than subjects obtained from the general population.

These control patients had physical illness and some of the illness were considered here as stressors. Moreover, other stressors could be developed as a consequence of physical illness. Therefore, psychosocial stressors naturally will be more in hospitalized control patients than general population control and the ratio of psychosocial stressors will be proportionately lower between self-harm patients and control patients. This may be the explanation of low ratio of stressors between self-harm patients and control patients in our study than other reports.

In the present study, though overall increased frequency of the individual stressors were found in deliberate self-harm patients than the controls, five stressors: family arguments, marital discord, physical asult by husband and/or his family members, broke up with boy friend or girl friend and problems with friends had significant difference. However, for many of the other stressors, frequencies in both group were too low for reliable conclusions, frequencies in both group were too low for reliable conclusions. 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 self-harm patients and the greatest differences were among the conjugal, family and other interpersonal stressors which was statistically significant. These results have the similarities with other reports that a significantly higher proportion of self-harm patients than controls had experienced disruption of relationship due to interpersonal conflict.<sup>8,9,10,11</sup> Stressors related to physical illness or injury were found slightly higher in control patients than self-harm patients. Though physical illness was reported as important psychosocial stressors in self-harm patients, the high proportion among non-suicidal control patients most probably reflect the fact that controls in this study were basically the hospitalized physically ill patients and a portion of these illness were considered as stressors. Moreover, the difference was not statistically significant.

In this study, overall severity of the psychosocial stressors was found much higher in self-harm patients than control patients particularly in mild, moderate and severe form. From the previous explanation we can conclude that the difference could be more higher in all forms of severity if the controls were taken from general population because serious physical illness diagnosed and serious chronic illness in self were considered as extreme form of severity in SPSS scale. A significantly higher relation (association of attributes) was found between the severity of psychosocial stressors and the degree of suicidal intent. The higher frequency of severity of stressors and higher association with suicidal intent in deliberate self-harm patients certainly in favour of the role of

psychosocial stressors in causation of deliberate self-harm.

In the present study, self-harm patients were found to have experienced significantly more events in the one month before the deliberate self-harm. Similar finding was observed in other report. This suggests that much greater proportion of self-harm patients with an stressor in this period was entirely due to the causal link between psychosocial stressors and deliberate self-harm.

Most of the stressors reported by self-harm patients were part of the everyday experience. The question still remains of why such stressors causes deliberate self-harm in some individual but not others. So, it is clear that other elements must be important in determining whether an individual performs deliberate self-harm. Such elements may include personality and previous experience, presence of psychiatric disorder, individual susceptibility to stressors and capacity to cope with them.

### **Conclusion**

The results of this study strongly indicate the importance of psychosocial stressors in the occurrence of deliberate self-harm. The excess of psychosocial stressors in the self-harm patients indicate a definite causal relationship with deliberate self-harm. Moreover, they point to the better definition of certain types of stressors which are particularly important in this respect.

Whether the psychosocial stressors precipitate the deliberate self-harm or not must be depend on other factors which require further exploration.

Deliberate self-harm is a medical and psychological condition and has certain aerological relationship with the

psychosocial stressors. Therefore, in association with medical and psychiatric treatment self-harm patients need special counseling service for the management of psychosocial stressors, so that they can be able to adjust adequately in the various situations of life-present or future.

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