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Study on Psychiatric morbidity and socio demographic profile in cases of deliberate self harm

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Abstract

Background:Deliberate self harm places a considerable drain on the resources of the health care system. They form a substantial burden on health services. With these present conditions, this study was undertaken to assess the psychiatric morbidity and socio-demographic profile of patients with "deliberate self harm" admitted in the general hospital.Material:The study was conducted at general hospital over a period of six months. We included 50 patients from various units those who got admitted for deliberate self harm, self poisoning, self injury, self immolation, etc. After stabilization the patients were subjected to a detailed psychiatric evaluation to understand the basic precipitating cause besides treatment or counseling. In our study, we observed that 62% of the patients had psychiatric morbidity, out of which substance use disorders (22%) and adjustment disorder (22%) were most common. Depression was present in 18%, while 6% had schizophrenia, and only 2% had mental retardation. In this study, we found that the association between psychiatric morbidity with age (p<0.001), occupation (p<0.01), residence (p=0.002) and type of family (p=0.004) was highly significant.Conclusion:Improving the facilities for management of common psychiatric illnesses at primary care level would probably help towards the ultimate goal of prevention of deliberate self harm.

Keywords: Psychiatric morbidity, Socio-demographic variables, Deliberate Self harm, Depression, Schizophrenia, Mental retardation

Introduction

Attempted suicide is both, one of the strongest predictor of completed suicide and an important indicator of extreme emotional distress [1]. It is estimated that in India, the incidence of non fatal suicidal attempts is 250 per 100,000 persons per year [2].In clinical practice, there are different terminologies being used for non-fatal suicidal behaviours which include incomplete

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suicide, failed suicide, attempted suicide, deliberate self injury and parasuicide. But in the year 1979, Morgan suggested the term 'Deliberate Self Harm' (DSH) to provide a single term covering all of the above [3]. Deliberate self harm places a considerable drain on the resources of the health care system. They form a substantial burden on health services and are a major group utilising intensive care services [4-5]. DSH is one of the top five causes of acute hospitalization for both men and women. Besides the ones who are hospitalised, there are many who refuse admission, or are treated by a general practitioner, or are often wrongly classified as accidental. After recovery from their acute condition, most of them are discharged directly, and a few are

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referred for psychiatric consultation. Thus the psychiatric referral service routinely evaluates only a small proportion of the persons admitted with deliberate self harm. As a result, a large number of deliberate self harm patients with or without psychiatric morbidity remains unrecognized and untreated [6].

Therefore it is important that such patients are detected and treated early. However in the long run, the clinician must be sensitive not only to the risk of repetition, but also to coexistence of psychosocial problems that require treatment in their own right [7].Looking towards the scenario, this problem is serious while the resources to deal with the problem are very few. With these present conditions, this study was helpful to understand the socio- demographic of patients with "deliberate self harm" admitted in the general hospital in which the study was carried out. It was also be helpful in detecting psychiatric morbidity among the persons who deliberately self harm, which until now was undetected, so that further episodes of deliberate self harm can be prevented.

Objectives: To determine the socio demographic profile and psychiatric morbidity in cases of deliberate self harm and to assess the relationship between socio demography and psychiatric morbidity.

Material and methods

The present cross – sectional study was conducted at general hospital over a period of six months. 50 patients were included from various units those who got admitted for deliberate self harm, self poisoning, self injury, self immolation, etc during study period. Institutional ethical clearance was obtained prior to begin of the study. After stabilization the patients were subjected to a detailed psychiatric evaluation to

understand the basic precipitating cause besides treatment or counseling. Informed consent was obtained from each patient.

Selection criteria:
• Those who gave consent to participate in the study
• Males and females aged between 20-40 years
• Accompanied by a good attendant who was well informed about the patient
•Those who were able to participate and did not require any urgent medical or surgical management

The socio medical history was obtained from the patients, and their attendants. This was also done at the first follow ups interviews were conducted of the patients as well as their legal guardians. A semi structured proforma was used for collection of socio-demographic data and case history. Socioeconomic status was assessed by using Kuppuswamy socioeconomic scale [8], which included income occupation and the diagnosis of psychiatric disorder, was made by the ICD-10 criteria [9].

Declaration of Patient Consent: Patient consent statement was taken from each patient as per institutional ethics committee approval along with consent taken for participation in the study and publication of the scientific results / clinical information /image without revealing their identity, name or initials. The patient is aware that though confidentiality would be maintained anonymity cannot be guaranteed.

Statistical analysis: Descriptive statistics such as mean, SD and percentage was used to present the data. To assess the relationship between socio demography and psychiatric morbidity, chi-square test was used. A p-value less than 0.05 were considered as significant. Data analysis was performed by using software SPSS v20.0

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Table 1: Socio-demography profile of deliberate self harm

Demographic characteristics	Number	Percentage
Age		
20-24	16	32
25 -29	11	22
30-34	7	14
35-40	16	32
Sex		
Males	34	68
Females	16	32
Marital status		
Unmarried	18	36
Married	30	60
Widow/ Divorced	2	4
Education		
Illiterate	11	22
Primary	4	8
Secondary	24	48
High Secondary	7	14
Graduate	4	8
Occupation		
Unemployed	7	14
Farmer	17	34
Student	5	10
HW	5	10
Others	16	32
Socio-economic status		
Upper	00	00
Upper Middle	21	42
Lower Middle	16	32
Upper Lower	13	26
Lower Lower	00	00
Residence		
Rural	20	40
Urban	30	60
Type of family		
Nuclear	30	60
Joint	20	40

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Average age of our study population was 29.12 years, and that for males was 26.67 years and for females was 26.43 years.Out of the 50 patients of deliberate self harm, 68 % were males and 32% were females. 54% were in the age group 20-29 years and 46% were in the age group 30-40 years. 60% were married, 36% were unmarried, and 4% were divorced. 48% were educated upto secondary school level, 14% upto high school, 8% upto primary school, 8% were graduates, and 22% were illiterate.34% were farmers, 32% were casual workers, 10% were students, and 10% were housewives. 14% patients were unemployed. 74% belonged to middle class and 26% belonged to the lower class.60% came from the urban background and 40% from the rural background. 60% belonged to nuclear families and 40% to the joint families.

Table 2 : Distribution of psychiatric morbidity

Psychiatric morbidity	Number of patients	Percentage
No illness	19	38
Adjustment disorder	11	22
Depressive episode	9	18
Substance use disorder	11	22
Schizophrenia	3	6
Mental retardation	1	2

In our study, we observed that 62% of the patients had psychiatric morbidity, out of which substance use disorders (22%) and adjustment disorder (22%) were most common. Depression was present in 18%, while 6% had schizophrenia, and only 2% had mental retardation.

Table 3: Association between Socio-demography and psychiatric morbidity

Demographic variable	Group	Psychiatric morbidity present	Psychiatric morbidity absent	χ^2 -value	P-value
Age in years	20-29	10	17	13.3	<0.001**
	30-40	21	2		
Sex	Female	9	7	0.069	0.793
	Male	22	12		
Marital status	Married	22	8	2.975	0.084
	Single	9	11		
Education	Illiterate	9	2	2.665	0.264
	<10th std	11	10		
	>10th std	11	7		
Occupation	Unemployed	7	10	10/894	0.004*
	Farmer	16	1		
	Other	8	8		
Socioeco. Status	Upper middle	14	7	0.42	0.811
	Lower middle	9	7		
	Upper lower	8	5		
Residence	Rural	18	2	9.2	0.002*
	Urban	13	17		
Type of family	Nuclear	24	6	8.493	0.004*
	Joint	7	13		

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In this study, we found that the association between age and psychiatric morbidity was highly significant (p<0.001). Psychiatric morbidity was common in the age group 30-40 years (n=21).More males (n=22) were found to have psychiatric morbidity as compared to females (n=9). This association was not found to be statistically significant (p value = 0.793).Psychiatric morbidity was more prevalent in the married patients. This finding was not found to be statistically significant (p value= 0.084).Psychiatric morbidity was found to be more prevalent in the patients who were illiterate as compared to those who were educated upto secondary school or beyond. This association was not statistically significant (p value= 0.264).In this study Psychiatric morbidity was more prevalent among the farmers in the study population. This association was found to be significant statistically (p< 0.01). We found that alcohol use disorders and related issues were predominantly present in the farmers of the sample.We found no significant association between socio-economic status and presence of psychiatric morbidity in our patients (p value= 0.811).In our study sample, we observed that the factors associated with urbanisation and deliberate self harm included increased demands, over-crowding, lifestyle changes, inter personal difficulties within family and friends, burden associated with the changing economy and less time is spent in recreational activities.The association between the prevalence of psychiatric morbidity and the nuclear family background was found to be statistically significant.

Discussion

Demographic profile

Age:Average age of our study population was 29.12 years, and that for males was 26.67 years and for females was 26.43 years. These findings were comparable to the findings of the Western and Indian studies. In these studies, suicidal behaviour was more frequent among the younger individuals. The mean age of the sample population was found to be 29-30 years, for both sexes. The age of the youngest and oldest patient has been different because these studies have included all deliberate self harm attempters irrespective of their age (House et al, 1999; Das et al, 2008) [5,10].

Sex: In our study population, the number of males (68%) was more than that of females (32%). This finding is similar to the findings of sex distribution in various Indian studies where out of 35 patients there were 19 males and 16 females [11]. In another study, there were 55.81% males and 44.19% females among the deliberate self harm attempters [12].The male preponderance in deliberate self harm data may be due to the socio-cultural and

occupational roles that the males have to perform in the Indian society. This culturally glorifying status of the males has put them through more stress and expectations. There may also be under reporting of female deliberate self harm as the male dominance has prevailed in the Indian society [10].But contrary to this, some Indian and most Western studies have reported female preponderance. Many reasons have been cited such as social maladjustment, domestic violence, economic stresses, sexual abuse, substance abuse / dependence in husband, harassment by in laws, dowry demands, and related issues are more common in females [2]. In the Western countries, the over representation of females in the patients presenting with deliberate self harm was because they were more likely to present to the health facilities with help seeking behaviour, because of their higher educational and social status [13-14].

Marital status:We found that married (60%) patients were predominant in our study sample, 36% were unmarried and 4% were either separated or divorced. This finding corroborated with the study of deliberate self harm found 59% were married, 37% unmarried, and 4% were divorced [15]. This preponderance could also be explained by the similar findings which were observed by a multinational study in which more subjects from India were married than single[16]. Early age of marriage in India can be one of the reasons for majority of married patients in our study sample[17].

Education:In our study population, majority of the patients had studied up to secondary school(48%), some up to high secondary school(14%), and few up to primary school (8%), and graduation (8%), while 22% of the patients were illiterate.This is consistent with the findings of other study, found 63.27% patients of deliberate self harm were educated upto primary and secondary school, 12% upto college and above, and 24.72% were illiterate. Another study found deliberate self harm attempters to be more educated[18]. The sample in a study, had 48% patients who were educated beyond college, 31% studied upto college, and 21% were illiterate [19].

Occupation:In this study majority of the patients were farmers (34%), while unskilled and semi skilled workers (included under others) formed the next common group (32%). The rest of the patients comprised of the ones who were unemployed (14%), students (10%), or housewives (10%)

Socio-economic status:Majority of the patients from our study belonged to middle class (74%), and rest belonged to the lower (26%) socio-economic class. Findings comparable to these were observed in studies across time and regions. In an Indian study, 69% of the patients belonged to the lower class, 15% to the middle and 16% to the upper class [19]. The Western studies showed

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comparable findings, found that although the patients were distributed throughout classes I to V, there was greater than average number, particularly of men in social classes IV and V[3]. Another study found that rates of deliberate self harm in both genders were higher in social classes IV and V as compared with social classes I and II [20].

Residence: The majority of the population from our study came from urban areas (60%), as compared to those from rural areas (40%). This finding is comparable with the finding from a study, where urban population (78%) were predominant the study sample [15]. Another study also showed predominance of the urban (53%) population [10].

Type of family:In our study, a significant proportion of the sample belonged to nuclear families (60%), rest came from joint families (40%). The other study found that there was an over-representation of males from unitary families (65.2%), and over-representation of females from joint families [21]. In another study, also observed similar findings, where majority of the sample came from nuclear families (64.5%) [10]. Our study was conducted in a highly industrialized part of the state, where most of the patients coming to hospital were educated and working under highly demanding situations. This could be one of the contributors to the changing picture from the joint families to nuclear families.

Psychiatric morbidity and deliberate self harm:Mental disorders are among the strongest predictors of deliberate self harm. In our study, we observed that 62% of the patients had psychiatric morbidity, out of which substance use disorders (22%) and adjustment disorder (22%) were most common. Depression was present in 18%, while 6% had schizophrenia, and only 2% had mental retardation.In a study, 92% patients were diagnosed as having psychiatric morbidity. Depression was the most common diagnosis found in patients of deliberate self harm (70.7%), out of which 47.2% had severe or psychotic depression, 42.5% moderate depression, and 2.8% mild depression. Alcohol dependence and harmful use was the next most common psychiatric diagnosis (27.6%). Anxiety disorders (14%) including social phobia, agoraphobia, and generalized anxiety disorders were the next most common disorders. There were very few patients having psychotic symptoms of schizophrenia, schizoaffective disorder, alcoholic hallucinosis, and other non organic psychosis [13,20].In another study, found substance use disorders (32.6%) and depression (25%) in males, and depression (39.53%) and adjustment disorder (44.20%) in females, were most common psychiatric diagnoses. Schizophrenia and psychotic illness was present in 7.4% patients and other disorders like borderline personality and conduct disorders in 10.37% patients [18].There are few studies in which adjustment disorder was more common than depression as in our study. Higher rates of adjustment disorder probably

reflect the influence of the socio cultural milieu. It also signifies that presence of a stressor was given more prominence while assessing the deliberate self harm [22].Hopelessness in other psychiatric illness like alcohol use disorders or schizophrenia is also a risk factor [23-24]. One of the significant factors in patients of schizophrenia attempting deliberate self harm is the presence of psychological, social, and financial burden upon the individual and his family [25].Thus proper management of a coexisting psychiatric illness may help in reducing future risk of repetition of deliberate self harm [23].

Association of socio-demographic with psychiatric morbidity

Age:In this study, we found that the association between age and psychiatric morbidity was highly significant (p<0.001). In a study, distribution of deliberate self harm patients with psychiatric morbidity in different age groups showed strong skew towards the younger age. The young age group is vulnerable because the issues of exam stress, peer pressure, unemployment, broken love affairs, and social deprivation are common in this age group. Due to these factors, deliberate self harm and psychiatric morbidity are also common in this age group [18,26].

Sex:In our study, more males (n=22) were found to have psychiatric morbidity as compared to females (n=9). This association was not found to be statistically significant (p value=0.793). We found that, males were also more likely to suffer from alcohol dependence and harmful use disorders, which were precipitated by financial load, work related issues, loss of partner, unemployment, inter-personal problems with family members. In a study, a significant association was found between the male gender and presence of psychopathology. It was found that alcohol and substance use disorders (32.6%) and depression (25%) were more common in the males, and adjustment disorder (44.2%) and depression (38.56%) were more common in females [18].

Marital status: The findings of the Western studies were different from our findings, i.e., deliberate self harm attempters were more likely to be single, divorced, or separated [3,20].Psychiatric morbidity was more prevalent in the married patients. This finding was not found to be statistically significant (p value =0.084).

Education: Low educational status influences the help seeking, decision making, problem solving and coping skills, and thus may serve as a risk for deliberate self harm [21].Contrary to this, higher educational level was found to be positively related to adaptive coping strategies and inversely to the maladaptive ones in another study. Higher level of intellectual functions is related to positive mental health related behaviours [27]. Efforts are needed to be undertaken regarding increasing awareness about various issues related to this and implementation of methods that

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promote healthy styles of coping in the young population. This will lead to positive mental health and well being [28].Psychiatric morbidity was found to be more prevalent in the patients who were illiterate as compared to those who were educated upto secondary school or beyond. This association was not statistically significant (p value= 0.264).

Occupation:In this study Psychiatric morbidity was more prevalent among the farmers in the study population. This association was found to be significant statistically (p< 0.01). We found that alcohol use disorders and related issues were predominantly present in the farmers of the sample.Economic concerns and government bureaucracy have been consistently identified as a major cause of stress and a contributor to the increasing number of self harm attempts in farmers [29].

Socio-economic status: Multiple stressors are associated with lower socio-economic status, which include poverty, unemployment, and substance use which predispose them to deliberate self harm [30]. Deliberate self harm results due to poor coping skills and unhealthy adaptations to these stressors. In a study, it was found that, low socio-economic status has been indirectly associated with poor mental health outcomes through inability to adopt a healthy coping style [28]. We found no significant association between socio-economic status and presence of psychiatric morbidity in our patients (p value= 0.811).

 Residence:In our study sample, we observed that the factors associated with urbanisation and deliberate self harm included increased demands, over-crowding, lifestyle changes, inter personal difficulties within family and friends, burden associated with the changing economy and less time is spent in recreational activities. These observations corroborated with the findings and also stated that when these factors were ultimately compounded with poor coping skills can contribute as a precipitant for deliberate self harm [27].In our study, we found that psychiatric illness was more prevalent in the patients coming from the rural areas and was statistically significant (p value 0.002). This can be explained by the fact that majority of the rural population in our study consisted of farmers, and alcohol use disorders were predominant in the farmers as compared to the urban population.

Type of family: Reviews on the role of family in relation to mental health have found that nuclear family structure is more likely to be associated with psychiatric morbidity than the joint family. This may be one of the reasons as to why majority of our patients from nuclear families presented with psychiatric morbidity. This association between the prevalence of psychiatric morbidity and the nuclear family background was found to be statistically significant(p=0.004).

As against this, in two studies of deliberate self harm carried out, major group of patients belonged to the joint families, because in some parts of India, joint family concept still exists and many people are living in joint families rather than in nuclear families [15,19].

Conclusion

Public education regarding early warning signs of suicide, will help to decrease the risk and prevent deliberate self harm and ultimate death due to suicide. Improving the facilities for management of common psychiatric illnesses at primary care level would probably help towards the ultimate goal of prevention of deliberate self harm.

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