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Socio-Demographic, Clinical Profile, Life Stress Events and Psychiatric Comorbidities in Patients with First Attempt Suicide

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Abstract

Background: Contemporary literature focuses on various socio-demographic, clinical profile and psychiatric comorbitidies in patients with first attempt suicide.

Aim: 1. To study the socio-demographic factors and the clinical profile of subjects with the first attempt suicide.

2. To assess the severity of depression and severity of stress due to various stressful events in patients with first attempt suicide.

3. To assess the severity of the suicide intent in patients with first attempt suicide.

4. To study the association between socio demographic profile of the patients with severity of depression, severity of suicide intent and severity of stress.

Materials and methods: Hundred fifteen patients were assessed using Hamilton rating scale for depression, becks suicide intent scale, Holmes-Rahe life stress inventory, MINI international neuropsychiatric interview. The data was analysed using the statistical software SPSS version 20.

Results: The sample of 115 patients showed mean age to be 29 years, majority of them being males (58%). With most common mode of attempting suicide to be drug overdose and most of the patients had adjustment issues due to various domestic household issues and financial stressors. The severity of depression was mild and suicide intent were low (67%). In our study chi square finding association between various socio demographic variables and severity of depression found to be highly significant. It was strongest among

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gender at p value 0.009, occupation in which depression was found mostly among employed patients and housewives at p value 0.001. Results also found depression more common among participants with urban background at p value 0.03 and family type being nuclear at p value 0.05.

Conclusion: Promoting healthy coping mechanism and reduction in stress is required to reduce self-harm. As is evident from the study, modifying the interpersonal relationship problems in the family might help in preventing many of suicide attempts/intentional self-harm and therefore important to address their various life events that might be stressful for them forcing them to take this step. In a country like India, where formal mental health resources are limited and are attached to a stigma, it is important to provide adequate information also among people hailing from lower economic status.

Introduction

The word suicide is derived from Latin, meaning "self-murder". The World Health Organization defines suicide act as "the injury with varying degrees of lethal intent and that suicide may be defined as a suicidal act with fatal outcome [1]." According to World Health Oorganisation, based on current trends, by the year 2020, approximately 1.53 million people will die from suicide, and 10-20 times more people will attempt suicide worldwide [2,3].

Attempted suicide/deliberate self-harm may be defined as "An act with non-fatal outcome, in which an individual deliberately initiates a non-habitual behaviour.

Non-fatal suicidal behaviours can have very different motivations, varying from an intention to die to a cry for help. These behaviours may be well prepared or carried out impulsively, and may have different physical consequences [4].

Depressive disorders are more commonly associated with suicide attempts. Social isolation enhances suicidal tendencies among depressed patients. The largest group of male alcohol-dependent patients is composed of those with an associated antisocial personality disorder [5].

There are various life events that contribute and drive patients towards taking this step of attempting suicide. It is also important to obtain information as to the patient's family history of suicide [6].

Keeping these factors under consideration, the present study aims to document the various factors, life stress events and psychiatric co morbidity in patients with first attempt suicide.

Material and methods

Study Sample

The sample size comprised of 115 patients with first attempt suicide who were referred, also the patients who were attending the psychiatry outpatient department and admitted in the ward for treatment consultation after being medically stabilized following first suicide attempt, which was consensus among the patient, their caregivers and the treating clinician. Consecutive sampling method was used to select subjects after attempting suicide for the first time and who were satisfying the inclusion and exclusion criteria were recruited into the study. Wherever possible, relatives, friends and other sources of information such as spouse or relatives were also interviewed for eliciting further information.

Tools

A semi structured proforma to record details of the patient, such as age, sex, marital status, education, occupation, income, place of residence, religion, family history of suicide, mode of suicide, time of attempt, psychiatric diagnosis and medical treatment.

A clinical sheet was used to collect data regarding the family history of suicide, mode of attempt etc.

All patients were explained about the purpose of the study and a written informed consent was obtained.

The patients were evaluated by a trained psychiatrist and the clinical picture was assessed. The patients were assessed for severity of depression according to the scoring of Hamilton depression rating scale.

Becks Suicide Intent Scale was administered for assessment of the severity of the intent with which the suicide was attempted.

The severity of stress was assessed by Holmes and Rahe life stress inventory that pushed him / her to attempt suicide.

Also a Mini-International Neuropsychiatric Interview scale was administered to find if there was any psychiatric condition that lead to the attempt.

Statistical analysis

The data was analyzed by using 'descriptive' and 'inferential' statistics, using the statistical software SPSS version 20. Mean and standard deviation were computed for all continuous variables. The correlation between socio demographic variables and severity of depression, severity of suicide intent and severity of stress in patients who attempted suicide for the first time was assessed using Chi square test.

Results

The sample of 115 patients show that the mean age of the current study participants is 29 years (Mean ± SD: 28.66 ± 6.915). Majority of our study samples are males (58%), while females contribute 43% (Table 1).

Clinical profile of the patients shows the most common mode of attempting suicide was drug overdose and most of the patients had adjustment issues due to various domestic household issues and financial stressors (Table 2).

The severity of depression using HAMD scale found that almost half of the participants in the study exhibit symptoms of depression with mild severity (Table 3).

The severity of suicide intent using beck suicide intent scale found that about 67% of the participants had low intent to die, while 30% had medium intent to die and only few (3%) had high intent.

Various stressful life events as assessed by Holmes and Rahe life stress inventory and our study participants exhibited mild levels of stress (Table 4).

In our study Chi square test was used to compare the statistical association between socio demographic variables with severity of depression (Table 5).

Chi square test was used to compare the statistical association between socio demographic variables with severity of suicide intent (Table 6).

In our study chi square test was used to compare the statistical association between socio demographic variables with severity of stress showed no significant association with any of the socio demographic variables.

Table 1: Socio demographic profile of patients.

SOCIO-DEMOGRAPHIC VARIABLES	n= 115 n= number of patients frequency(%) /mean ± SD
Age	28.66 ± 6.915
Sex	
1. Male	66 (57.4 %)
2. Female	49 (42.6 %)
Education	
1. Illiterate	1 (0.9 %)
2. Primary	26 (22.6 %)
3. Matriculation	38 (33.0 %)
4. Higher secondary	21 (18.3 %)
5. Graduate	29 (25.2 %)
Occupation	
1. Employed	59 (51.3 %)
2. Unemployed	12 (10.4 %)
3. Student	18 (15.7 %)
4. Housewife	26 (22.6 %)
Socioeconomic status	
1. Upper	14 (12.2 %)
2. Middle	30 (26.1 %)
3. Lower	71 (61.7%)
Marital status	
1. Single	58 (50.4 %)
2. Married	57 (49.6 %)
Residence	
1. Urban	60 (52.2 %)
2. Rural	55 (47.8%)
Family Type	
1. Nuclear	65 (56.5 %)
2. Joint	38 (33.0 %)
3. Extended	12 (10.4 %)
Religion	
1. Hindu	108 (93.9 %)
2. Muslim	7 (6.1 %)

Table 2: Clinical profile of patients.

CLINICAL PROFILE VARIABLE	n= 115 n=number of patients, frequency(%) /mean ± SD
Family History of suicide	
1. Present	9 (7.8 %)
2. Absent	106 (92.8 %)
Mode of attempt	
1. Drug overdose	53 (46.1 %)
2. OPC	18 (15.7 %)
3. Kerosene	10 (8.7 %)
4. Oleander seeds	10 (8.7 %)
5. Hanging	12 (10.4 %)
6. Rat Poison	12 (10.4 %)
Number of people present	1.51 ± 1.103
Presence of psychiatric Co morbidity	
1. Present	115 (100 %)
Type of psychiatric co morbidity	
1. Substance Abuse/dependence	14 (12.2 %)
2. Schizophrenia and other psychotic disorders	4 (3.5 %)
3. Depression	3 (2.6 %)
4. Adjustment	94 (81.7 %)
Time of attempt	
1. Morning	33 (28.7 %)
2. Afternoon	31 (27 %)
3. Night	51 (44.3 %)
Medical co morbidity	
1. Present	10 (8.7 %)
2. Absent	105 (91.3 %)

Table 3: Severity of depression using Hamilton depression rating scale.

Severity of HAMD scale	n=number of patients(Frequency %)
1.Subclinical	58 (50.4%)
2. Mild	57 (49.6%)

Table 4: Life stress events assessed by Holmes and Rahe life stress inventory.

LIFE STRESS EVENTS	N= 115 (frequency%)
Death of a close family member	6 (5.2%)
Being fired at work	7 (6.1%)
Major changes in health/ behaviour of family	5 (4.3%)
Major business adjustment	3 (2.6%)
Change in financial status	55 (47.8%)
Change to different line of work	18 (15.7%)
Increase arguments with spouse	59 (51.3%)
Taking a mortgage	13 (11.3%)
Changes in responsibilities at work	13 (11.3%)
In-law troubles	45 (39.1%)
Major changes in living condition	17 (14.8%)
Taking a loan	13 (11.3%)

Table 5: Association between socio demographic variables with severity of depression.

Socio demographic Variables	Distribution		Chi square value (χ^2)	P value
	Sub clinical	mild		
Sex 1. Male	40	26	6.41	0.009 *
2. Female	18	31		
Education 1. Illiterate	0	1	11.13	0.02 *
2. Primary	18	8		
3. Matriculation	21	17		
4. Higher secondary	11	10		
5. Graduate	8	21		
Occupation 1. Employed	36	23	17.6	0.001 ***
2. Unemployed	10	2		
3. Student	4	14		
4. Housewife	8	18		
Socioeconomic status 1. Upper	8	6	9.19	0.01 *
2. Middle	8	22		
3. Lower	42	29		
Marital status 1. Single	32	27	0.07	0.25
2. Married	26	30		
Residence 1. Urban	25	35	3.85	0.03 *
2. Rural	33	22		
Family Type 1. Nuclear	35	30	6.01	0.05 *
2. Joint	14	24		
3. Extended	9	3		
Religion 1. Hindu	54	54	0.13	0.51

*association is significant at p value<0.05
**association is significant at p value <0.005
***association is significant at p value <0.001

Table 6: Association between socio demographic variables with severity of suicidal intent.

Socio demographic Variables	Distribution			Chi square value (χ^2)	P value
	Low	medium	high		
Sex 1. Male	45	18	3	2.77	0.25
2. Female	32	17	0		
Education 1. Illiterate	1	0	0	13.07	0.11
2. Primary	17	9	0		
3. Matriculation	30	8	0		
4. Higher secondary	14	7	0		
5. Graduate	15	11	3		
Occupation 1. Employed	40	16	3	5.88	0.44
2. Unemployed	10	2	0		
3. Student	12	6	0		
4. Housewife	15	11	0		
Socioeconomic status 1. Upper	9	5	0	9.57	0.49
2. Middle	17	10	3		
3. Lower	51	20	0		
Marital status 1. Single	41	18	0	3.27	0.19
2. Married	36	17	3		
Residence 1. Urban	36	21	3	4.51	0.10
2. Rural	41	14	0		
Family Type 1. Nuclear	48	17	0	11.5	0.02 *
2. Joint	19	16	3		
3. Extended	10	2	0		
Religion 1. Hindu	70	35	3	3.67	0.15
2. Muslim	7	0	0		

*association is significant at p value<0.05
**association is significant at p value <0.005
***association is significant at p value <0.001

Discussion

The mean age of participants who attempted suicide for the first time was 29 years, findings were in concordance with the study by Lakshmi Vijaykumar et al 2010, in which majority of the suicides attempts (37.8%) in India are by those below the age of 30 years. An international study reported suicides attempts were common in the third decade of life (i.e., in persons 20 to 29 years of age) and similar results were reported in an Indian study Das et al 2008 study [7]. One of the most consistent findings in suicide research is that women make more suicide attempts than men, but men are more likely to die in their attempts than women. However most of our participants came from urban background (52%) vast of them belonged to lower class to lower middle class group which is in concordance with Shanghai archives of psychiatry, 2014.

In our study we found that there are various methods for attempting suicide, among which drug overdose (46%) is the most common method followed by organo phosphorous poisoning (16%) and rat poison consumption (10%).

In our study most of the patients were diagnosed with adjustment disorder (82%) followed by substance abuse, mainly alcohol (12%) which is in concordance with the earlier studies Shanghai archives of psychiatry, 2014 Das et al 2008 study [7].

Both of which have shown higher percentage of affective disorders or adjustment disorders (58%) followed by substance abuse (25%).

Changing in living conditions (15%), and changing to a different line of work (16%), and taking loan (11%) or mortgage (11%) were among the other stressful events which is in concordance with Das et al 2008 study and with Shanghai Archives of Psychiatry, 2014 showing highest attempts following troubles in interpersonal relationship with spouse and family, financial conditions. Where marital satisfaction is low, there is Lack of intimacy and marital strife these are linked.

Conclusion

The present study found that there is mild levels of depression, low to medium severity of suicide intent and low levels of stress in patients who attempted suicide for the first time. Adjustment disorder with mild depressive symptoms remains the most common diagnosis; its early identification and proper treatment can lead to reduction in suicide attempts/intentional self-harm and perhaps completed suicides. Hence, promoting healthy coping mechanism and reduction in stress is required to reduce self-harm [8]. As is evident from the study, modifying the interpersonal relationship problems in the family might help in preventing many of suicide attempts/intentional self-harm and therefore important to address their various life events that might be stressful for them forcing them to take this step [9]. In a country like India, where formal mental health resources are limited and are attached to a stigma, it is important to provide adequate information also among people hailing from lower economic status [10].

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