

Original Research Article**Psychiatric Morbidity among Patients of Suicide**

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Abstract**Background:** *The word suicide is derived from the Latin word "self murder." It is the human act of self intentioned cessation, self inflicting, committed out of acute anguish, tunneled logic and constricted thinking.***Aims:** *To find psychiatric morbidity among patients of suicide.***Materials & Methods:** *The present cross-sectional study conducted on 118 patients of suicide who were admitted in the hospital and were seeking psychiatric consultation through liaison. Various parameters like their sociodemographic characteristics, mode of suicide and precipitating factors were noted in a preformed proforma after a detailed interview. Psychiatric diagnosis was made according to ICD-10 after assessing the patient with MINI ((Mini International Neuropsychiatric Instrument).***Results:** *Maximum i.e. 52.5% patients were in the age group 15-30 years, Females were 65.3%, 56.8% patients were of rural background. Majority of the patients were Hindus (64.4%), married (61.9%), educated (77.1%), unemployed (70.3%) and were of low socioeconomic status (48.3%). Total of 52.5% were having family conflict as the precipitating factors. Poisoning was the most common way of suicide accounting for 61.9% suicidal attempts. Psychiatric morbidity was present in 60.2% patients of which depression was the most common diagnosis and was present in 28% patients of suicide.***Conclusion:** *From present study, suicide appears to be a major public health problem which can be prevented. Persons who had attempted suicide and their family members should be followed up in order to prevent future attempts. Strict laws for storing potentially poisonous drugs and chemicals would help in reducing suicidal attempts by restricting access.***Keywords:** *Poisoning, Precipitating factors, Suicide.*

Introduction

Suicide is the primary psychiatric emergency. It is a fatal, destructive and preventable act that represents the person's wish to die¹ and is performed by the person in the knowledge or expectations of its fatal outcome.² It is the human act of self intentioned cessation, self inflicting, committed out of acute anguish, tunneled logic and constricted thinking.³ The word suicide is derived from the Latin word "self murder." There is a range from thinking about suicide and acting it out. Some peoples may have only ideas of suicide, some peoples makes plans from days to years before acting it and some may commit suicide instantaneously on impulse.¹ Financial difficulties, family problems, defamation, low frustration tolerance, unemployment, harassment, psychosocial problems, diseases, problems in education system, failure in exams, weakening protective values of social institutions like family, increased use of alcohol and drugs are among the stressors which ultimately leads to death.² Globally, an estimated 700,000 people take out their own lives annually. As per WHO, an attempt at the suicide is made every 3rd second with a success of 1 suicide per minute. Annually 700,000 peoples commit suicide worldwide which is more than people killed by the armed conflict.⁴ In India in every 5 minutes a person kills himself whereas 7 attempts suicide forming about 100000 suicidal deaths occur annually.³

Suicide rates are rising in both developed and developing countries more quickly.² It is the 11th leading cause of death in the United States whereas in India it is among the top ten.⁴ There has been increase in cases of psychological disorders along with suicide and suicide attempters. Hence the present study was conducted to find psychiatric morbidity among patients of suicide.

Methodology

The present cross-sectional study was carried out at government medical college Jammu and its associated hospitals. All the patients of suicide who

were admitted in the hospital and were seeking psychiatric consultation through liaison were included in the study whereas patients of homicidal or accidental poisoning were excluded from the study. A total of 118 patients were selected for the study and their sociodemographic characteristics, mode of suicide and precipitating factors were noted in a preformed proforma after a detailed interview. Psychiatric diagnosis was made according to ICD-10 after assessing the patient with MINI ((Mini International Neuropsychiatric Instrument).⁴

Statistical analysis

Analysis of data was done using statistical software MS Excel / SPSS version 17.0 for windows. Data presented as percentage (%) as discussed appropriate for quantitative and qualitative variables

Observations and Results

Table 1 shows that 52.5% patients were in the age group 15-30 years, 33.1% were between 31-45 years and only 14.4% were above 45 years of age. There were 65.3% females and only 34.7% males. 56.8% patients were of rural background and 43.2% with urban background. Majority of the patients were Hindus (64.4%), married (61.9%), educated (77.1%), unemployed (70.3%) and were of low socioeconomic status (48.3%).

Table 2 shows that 52.5% were having family conflict as the precipitating factors whereas marital dyshormony was present among 38.1% patients. Other precipitating factors included were financial crisis (27.1%), love affair (11.8%), exam failures (10.2%) and others (22.9%). Table 2 also depicts that poisoning was the most common way of suicide accounting for 61.9% suicidal attempts. Medicines such as benzodiazepines were used by 23.1% patients whereas 14.4% patients used other methods like hanging and burning.

Table 3 shows that the psychiatric morbidity was present 60.2% patients. Depression was the most common diagnosis and was present in 28% patients of suicide which were followed by adjustment disorder (11%), anxiety disorders (5.9%), psychotic

disorders (5.1%), substance use disorders (5.9%) and other psychiatric disorders (4.2%).

Table 1 shows various sociodemographic parameters of patients of suicide

	Number of caregivers	Percentage (%)
Age (in years)		
15-30	62	52.5
31-45	39	33.1
>45	17	14.4
Sex		
Males	41	34.7
Females	77	65.3
Residence		
Rural	67	56.8
Urban	51	43.2
Religion		
Hindu	76	64.4
Muslims	31	26.3
Others	11	7.3
Marital status		
Married	73	61.9
Unmarried	17	14.5
Divorced	2	1.7
Widowed	7	5.9
Type of family		
Joint	71	58.5
Nuclear	47	41.5
Education		
Uneducated	27	22.9
Educated	91	77.1
Occupation		
Employed	35	29.7
Unemployed	83	70.3
Socio economic class		
Upper	12	10.2
Middle	49	41.5
Lower	57	48.3

Table 2 shows various precipitating factors and mode of suicide among patients of suicide

	Number	Percentage
Precipitating factors		
Family conflicts	62	52.5
Marital disharmony	45	38.1
Financial crisis	32	27.1
Love affair	13	11.8
Exam failures	12	10.2
Others	27	22.9
Mode of suicide		
Poisoning (organophosphorus, rodenticides, harpic etc)	73	61.9
Medicines (benzodiazepines, barbiturates, paracetamol, etc)	28	23.7
Others(hanging, burning, etc)	17	14.4

Table 3 shows various psychiatric diagnosis among patients of suicide

Psychiatric diagnosis	Number	Percentage
Depression	33	28
Adjustment disorder	13	11
Anxiety disorder	7	5.9
Psychotic disorder	6	5.1
Substance use disorder	7	5.9
Others	5	4.2
Total	71	60.2

Discussion

The rise in attempting suicide especially among the young people's is a major concern all over the world. In Indian history there were many examples of committing suicide most famous of which were Rajput women's committing suicide to save their dignity when it was in danger and the mass suicide by self-immolation was called johaf.⁵ Compared to complete suicides, attempted suicides were more common. It seems the patients who were attempting suicides were suffering from various psychiatric disorders.⁶ Hence the present study was conducted to find psychiatric morbidity among patients of suicide. In the present study majority i.e. 52.5% patients attempting suicide were in the age group 16-30 years followed by 33.1% in 31-45 years and 14.4% in above 45 years. In recent times suicide rates are rising more quickly in adolescents and young peoples than all other age groups, both in developing and developed countries which may be due to the stressors and triggering factors like emotional issues, exam failures, peer pressure, substance abuse, financial difficulties, high parental expectations, family conflicts etc.³ Moreover young people are less experienced with critical life situations, are more impulsive and more often opt suicide attempt to tide over difficult life situations.⁷ As per Khan NT et al 67% patients attempting suicide were between the age of 10 to 30 years.⁷ The finding can further be strengthened by Qusar MMAS et al who found that 45.6% patients attempting suicide belonged to the age group 15 to 34 years². Similarly Shoib S et al had also found that suicidal behaviour was more

common in younger age group.⁴ Other studies had found similar results.^{5, 8,9,10}

In the present study 65.3% suicide attempters were females and 34.7% were males. In India women are more non-assertive, docile and submissive, and with the building of these traits their psyche results in difficulties to deal with their negative feelings adequately. Being married, hostile family environment, difficult and uncooperative husband, loss of husband sympathies and dowry demands by inlaws are the most common stresses in women resulting in suicide as the only choice of way out from psychological pain, anguish and suffering.¹¹

Moreover depressive episodes occurs more commonly in female than males resulting in more suicidal ideation and thus more suicidal rates among females¹² which may further be precipitated by factors like financial difficulties, family problems, harassment, defamations, unemployment, domestic violence etc.² The finding is in agreement with Purushothaman P et al who found that 65% of suicide attempters were females.⁷ Similarly Qusar MMAS and Shoib S et al had also observed that 59.1% and 55.5% patients which attempt suicide were females.^{2,4} Similar results were also found by other studies.^{5,8,9,10}

In the present study 56.8% suicide attempters were from rural background and 43.2% were from urban back ground. Compared to urban areas, rural areas had low literacy rates and higher unemployment rates. More over most peoples in rural areas were of low socioeconomic status.¹³ All these factors have been repeatedly cited as significant risk factors predicting suicide.¹⁰ Our finding is in accordance with Kumar SPN had also found 60% of the suicide committers were from rural areas.¹⁰ Similarly some studies had found majority of the patients attempting suicides were from rural areas^{4,11} whereas other studies had found the opposite.^{7,9}

In the present study 64.4% were Hindus whereas 26.3% were Muslims and only 7.3% patients belong to other religion. As per census 2011, religion wise India is dominated by Hindus followed Muslims and

then by the peoples of other religion¹³ and the same trends may be following in our study. Purushothaman P et al and Ram et al had found that around 95% patients attempting suicide were Hindus.^{7,9} Similarly Kumar SPN in his study had also found that majority of suicidal patients were Hindus.¹¹ However Shoib S et al in his study found that about 95.02% patients Muslims.⁴ The reason for such difference could be that the Shoib et al has done his study in Kashmir which is Muslim dominant area.¹³

In the present study about 61.9% suicidal patients were married. In India there several reasons for suicide being more common among the married than unmarried people. Marriage in India is a social obligation which is usually performed by elders irrespective of the individuals preparedness. In India mentally ill are likely to get married sooner than mentally health as marriage is considered be part of the treatment for mental illness resulting in several adjustment problems among the married mentally ill persons. Divorce being socially unacceptable, hence suicide provides the only way to escape from the stressful situation.¹⁰ Purushothaman P and Kumar SPN et al in their respective studies had found that about 60% subjects with suicidal attempt were married.^{7,10} Similar findings were also noted in other studies^{9,11} whereas shoib et al had found no marital difference among suicide committers.⁴

58.5% patients in this study were from joint families whereas 41.5% were from nuclear families. Suicidal ideation occur more frequently in persons living in joint family than persons who were living alone and high suicidal rates in joint families are the effects of their disintegration due to rapid industrializations and urbanizations.¹⁵ Similarly Shoib S et al had also founds 42.78% suicidal patients were from joint family, 36.3% were from nuclear family and 20.89% were from ex nuclear family.⁴ However Kumar SPN and Purushothaman P et al had found more suicide attempters from nuclear family.^{7,10}

In the present study 77.1% patients who attempted suicide were educated and only 22.9% were

uneducated. This could be explained by the fact that India is growing faster in the last few decades and there are increasing trends of education among younger generation as more and more adolescents are attending schools and colleges¹³ which were reflected in our study. Shoib S et al had found higher suicidal rates among illiterates⁴ whereas Ram et al and Purushothaman P et al had found suicidal attempts more in literates.^{7,8}

In the present study 70.3 % suicide attempters were unemployed and 29.7% were employed. Unemployment results in financial crisis and if prolonged person may find suicide as the only way to escape way from the situation. Moreover unemployment is the risk factor associated with depression¹² which itself is associated with more suicidal tendencies and suicidal rates.⁹ Our study is in accordance with Purushothaman P et al and Kumar SPN who found higher suicidal rates among unemployed peoples.^{7,10} However Shoib S et al and Ram et al had found that employed peoples attempts more suicides than unemployed.^{4,9}

In the present study, the majority i.e. 48.3% patients were from lower socioeconomic status followed by 41.5% in the middle and 10.2% in the upper socioeconomic status. The reason for this could be that the lower socioeconomic status may be more associated with domestic violence, poverty and unemployment all being risk factors for depression¹² which itself causes higher suicidal rates.⁹ Our finding is in accordance with other Indian studies which had showed higher rates of suicides among peoples of lower socioeconomic status.^{4,7,9,10}

Family conflicts (52.5%) and marital dysharmony (38.1%) were the leading precipitating factors associated with suicide which is consistent with study done by Shoib et al.⁴

In the present study 61.9% patients had used poisoning with compounds like organophosphorous, rodenticides, harpic etc as a mode for suicide whereas 23.7% had used medicines and 14.4% had used other methods like hanging, burning etc for committing suicides. When the suicidal act is

impulsive in nature, the availability of methods becomes more important. Easy accessibility feasibility, rapidity of action, credibility and degree of suicide intent could be the factors behind the choice of method for committing suicide. In India, there is an easy accessibility to insecticides, medicines, corrosives, kerosene etc in most households.¹⁰ Our finding is in agreement with Narang RL et al and Shoib et al who found that rates of suicide by consuming poisonous substance were 91% and 82.08% respectively.^{4,5} Qusar MMAS et al also observed similar findings.²

About 60.2% patients attempting suicide had psychiatric morbidity. There is high association of psychiatric disorders among the suicidal persons.¹ Our finding is in accordance with Qusar MMAS et al who observed that 59.1% patients attempting suicide were suffering from psychiatric disorders.² Similarly Narang RL et al had also found that 57% of suicidal patients were having comorbid psychiatric diagnosis.⁵ Similar observations were made by Shoib S et al.⁴

Depression was present in about 28% patients attempting suicide. There is high prevalence of depression among the patients with suicidality.¹ In Asian countries depression is often misdiagnosed, under diagnosed or untreated which is always dangerous and may increase the severity of sufferings of patients with time which may lead to an act of suicide.² Shoib S et al had observed that 21.9 % suicide patients were having depression whereas Qusar MMAS et al observed depression in 25% patients who had attempted suicide.

Conclusion

Suicide appears to be a major public health problem which can be prevented. Persons who had attempted suicide and their family members should be followed up in order to prevent future attempts. In order to improve coping skills, health education, problem solving techniques and life skill training and problem-solving techniques may be regularly taught at schools. Strict laws for storing potentially

poisonous drugs and chemicals would help in reducing suicidal attempts by restricting access.

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Declaration

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References

1. Sadock BJ, Sadock VA. Brain Stimulation Methods in: Kaplan & Sadock's Synopsis of Psychiatry: Behavioral Sciences/Clinical Psychiatry. 10th ed. Lippincott Williams & Wilkins; 2007;Chapter34.1:897-906
2. Qusar MMAS et al. Psychiatric morbidity among suicide attempters who needed ICU intervention. BSMMU J 2009;2(2):73-77.
3. Baby S, Haridas MP and Yesudas KF. Psychiatric diagnosis in attempted suicide. Calicut Medical Journal 2006;4(3):e2
4. Shoib S, Dar MM, Bashir H et al. Psychiatric morbidity and the socio-demographic determinants of patients attempting suicide in Kashmir valley: a cross-sectional study. Int J Health Sci Res. 2012;2(7):45-53.
5. Narang RL, Mishra BP & Mohan N. Attempted suicide in Ludhiana. Indian Journal of Psychiatry, 2000, 42 (1), 83-87.
6. Galgali RB, Rao S, Ashok MV, Appaya P and Srinivasan K. Psychiatric diagnosis of self poisoning cases: a general hospital study. Indian J. Psychiat, 1998, 40(3), 254-259.
7. Purushothaman P, Premarajan KC, Sahu SK and Kattimani S. Risk factors and reporting status for attempted Suicide: A hospital-based study. International Journal of Medicine and Public Health 2015;5 (1):45-49.
8. Rao AV. Suicide attempters in Madurai. J Indian Med Assoc 1971;57:278-84.
9. Ram D, Darshan MS, Rao TSS, Honagodu AR. Suicide prevention is possible: A perception after suicide attempt. Indian Journal of Psychiatry 2012;54(2):172-177.
10. Kumar SPN. Age and gender related analysis of psychosocial factors in attempted suicide. Indian Journal of Psychiatry, 1998,40(4), 338-345.
11. Kumar SPN. An Analysis of Suicide Attempters Versus Completers in Kerala. Indian Journal of Psychiatry 2004;46 (2):144-149.
12. Sadock BJ and Sadock VA. Brain Stimulation Methods in: Kaplan & Sadock's Synopsis of Psychiatry: Behavioral Sciences/Clinical Psychiatry. 10th ed. Lippincott Williams & Wilkins; 2007;Chapter15.1:527-561.
13. Government of India, Ministry of Home Affairs, The Census 2011 online results/paper2/data files/J&K/Population and decadal growth.
14. Government of India, Ministry of Home Affairs, The Census 2011 online results/paper2/data files/J&K/Population and decadal growth.
15. Adityaanjee. Suicide attempts and suicides in India: cross-cultural aspects. International journal of social psychiatry 1986;32 (2):64-73.