

ORIGINAL RESEARCH

SOCIO-DEMOGRAPHIC PROFILE AND SUICIDAL INTENT OF ATTEMPTED SUICIDE CASES: A HOSPITAL BASED STUDY IN WEST BENGAL, INDIA

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ABSTRACT

Background: Suicide is one of the ten major causes of death in India. Suicidal intent score has been found to be a good predictor of a subsequent completed suicide. The present study was conducted to find out the socio-demographic profile and the suicidal intent score of the cases of attempted suicide as well as to determine the association of suicidal intent score with various factors.

Methodology: We conducted the present hospital based observational cross sectional study at a rural hospital of Eastern India. 156 admitted cases with history of self-poisoning were interviewed after obtaining the informed consent. Socio-demographic information and suicidal intent score were recorded and analyzed.

Results: Total 55.1% patients were in the age group of below 20 years, 69.2% were females, 58.3% belonged to socioeconomic class V and 17.3% patients were illiterate. 43.6% were students and 28.8% housewives. 17.3% patients had history of suicidal attempts in the past and in 23.1% cases stress factor was present in the family. Suicidal intent score was medium in 63.5% patients, 10.3% patients had low score and 26.2% had high score. Different factors like age of 20 years and above, male sex, married people, people having addiction habit, previous suicidal attempt, positive family history and stress factors in family increased the suicidal intent score whereas aged less than 20 years, female sex, unmarried people, people having no previous attempt of suicide, negative family history and absence of stress factor in the family decreased the suicidal intent score.

Conclusion: The present study highlighted the influencing factors of suicidal intent score based on a hospital set up. A larger community based study with follow up of study subjects is required to get a detailed idea about the influencing factors of suicidal intent score.

Key words: Suicidal intent score, attempted suicide.

INTRODUCTION

Suicidal attempts, (both fatal and nonfatal) are a challenging public health issue¹. A high suicide rate in any society is an index of social disorganization². World Health Report 2001 estimated that 10-20 million people make an attempt to commit suicide and one million people become successful in it. Suicide is one of the 10 major causes of death in India. India ranks second in number of suicidal death³. According to National Crime Bureau (2001), incidence rate of suicide was 11 per lakh population during 2000⁴. Attempted suicide is stated to be associated with several psychosocial and medical conditions –young age, female sex, psychiatric disorder etc². Suicide is usually associated with years of suicidal behavior as 50% of people who commit suicide have

previously attempted to do so. Patients who attempt suicide and survive are at high risk of committing suicide later⁵. Suicidal intent score has been found to be a good predictor of a subsequent completed suicide and it may be possible to intervene and prevent this. With these views, the present study was carried out to find out the socio-demographic profile and the suicidal intent score of the cases of attempted suicide as well as to determine the association of suicidal intent score with various factors.

MATERIALS AND METHODS

Study site: The present study was conducted in Tarakeswar Rural Hospital, India. Tarakeswar is a small

town in the state of West Bengal in the Eastern part of India. The town is approximately 50 km away from the metropolitan city of Kolkata. The rural hospital in Tarakeswar serves as the main hospital of the block of Tarakeswar.

Study design and study population: This hospital based descriptive observational, cross sectional study was carried out among the patients admitted in Tarakeswar Rural hospital with history of self-poisoning from August 2011 to July 2012. Patients with other methods of suicidal attempts and seriously ill self-poisoning patients were referred to higher medical facilities from emergency and not included in the study. After obtaining informed consent, all the self-poisoning patients (total 156) admitted in the hospital during study period (excluding those who were unwilling) were interviewed.

Study tools and technique: The interview of the patients was done using predesigned, pretested schedule and Beck's Suicidal Intent Scale. Beck's Suicidal Intent Scale contains 20 items—each one scoring from 1-3 points. Total score of 15-19 was regarded as low intent, whereas 20-28 as medium intent and 29 as high intent. Socio-economic status was classified according to modified B.G. Prasad scale.

Statistical analysis: Data entry was done in MS-EXCEL and after checking data was copied into SPSS version 16.0. Then the data was analyzed by SPSS 16.

RESULTS

Out of 156 self-poisoning patients, majority (55.1%) were in the age group of below 20 years, whereas 37.2% and 7.7% were in the age groups of 20-40 years and 40 years and above respectively. 30.8% of the study population were males and 69.2% were females. Hindus constituted 86.5% of total patients and only 13.5% were Muslims. Residence of most of the patients (94.9%) was in rural area, only 5.1% came from urban area. Types of family were nuclear 53.8% cases and 46.2% belonged to joint families. Majority of patients were middle school and primary school educated (32.7% and 23.7% respectively). 17.3% patients were illiterate, 13.5% and 12.8% had secondary and higher secondary and above education respectively. A large number of patients were students (43.6%) and housewives (28.8%).

Rests were engaged in agriculture (16.1%) and service (11.5%). More than half of the patients (58.3%) belonged to socioeconomic class V followed by 23.1% belonging to socio-economic class VI. 42.9% patients were married and 57.1% were single. 16.7% patients were suffering from some form of physical illness and 10.9% from mental illness. 17.3% patients had history of suicidal attempts in the past. Addiction was present in 12.8% patients. Family history of suicide or suicidal attempt was present in 20.5% cases. In 23.1% cases stress factor was present in the family.

Table 1: Distribution of study population according to socio-demographic profile (n=156)

Socio demographic profile	Subjects (%)
Age in years	
<20	86 (55.1)
20-40	58 (37.2)
>=40	12 (7.7)
Sex	
Male	48 (30.8)
Female	108 (69.2)
Religion	
Hindu	135 (86.5)
Muslim	21 (13.5)
Residence	
Rural	148 (94.9)
Urban	8 (5.1)
Type of family	
Nuclear	84 (53.8)
Joint	72 (46.2)
Education	
Illiterate	27 (17.3)
Primary	37 (23.7)
Middle school	51 (32.7)
Secondary	21 (13.5)
Higher Secondary & above	20 (12.8)
Occupation	
Agriculture	25 (16.1)
Housewife	45 (28.8)
Student	68 (43.6)
Service	18 (11.5)
Socio-economic status	
I	5 (3.2)
II	9 (5.8)
III	5 (3.2)
IV	10 (6.4)
V	91 (58.3)
VI	36 (23.1)
Marital status	
Married	67 (42.9)
Single	89 (57.1)
Physical illness	
	26 (16.7)
Mental illness	
	17 (10.9)
Previous suicidal attempt	
	27 (17.3)
Any Addiction	
	20 (12.8)
Family history of suicide	
	32 (20.5)
Stress factor in family	
	36 (23.1)

Suicidal intent score was medium in maximum number of patients (63.5%), followed by those with high score (26.2%).

Only 10.3% patients had low suicide intent score. It was found that suicidal intent score had significant association with age, sex, marital status, addiction, family history of suicide or suicidal attempt, previous attempt of suicide and stress factor in family, but no significant association was found between suicidal intent score and physical or mental illness.

Table 2: Distribution of study population according to Suicide Intent Score (N=156)

Score	Subjects (%)
Low intent score(15-19)	16 (10.3)
Medium intent score(20-28)	99 (63.5)
High intent score(>=29)	41 (26.2)

Proportion of patients with high suicide intent score was higher in patients with age 20 years and above (45.7%), in males (45.8%), in married (46.3%), with previous suicidal attempt (61.5%), with positive family

history (46.9%) and stress factors in family (47.2%) and those having addiction (55.0%) whereas, 10.5% patients with aged less than 20 years, 17.6% females, 11.2% single subjects, 19.2% patients without previous suicidal attempts, 20.9% with negative family history, 20.0% without stress factors in family and 22.1% without addiction had high suicidal intent score. High suicidal intent score was present among 23.1% persons with physical illness and 26.9% patients without physical illness. 41.2% patients with mental illness and 24.5% without mental illness had high suicidal intent score.

Table 3: Association of suicide intent score with different factors

Factors	Low & medium intent score (%)	High intent score (%)	Odds ratio	95% CI	P value
Age in years					
<20 (n=86)	77 (89.5)	9 (10.5)	7.11	2.93-18.19	<0.001
>=20 (n=70)	38 (54.3)	32 (45.7)			
Sex					
Male (n=48)	26 (54.2)	22 (45.8)	0.25	0.11-0.57	<0.001
Female (n=108)	89 (82.4)	19 (17.6)			
Marital status					
Married (n=67)	36 (53.7)	31 (46.3)	0.15	0.06-0.35	<0.001
Unmarried (n=89)	79 (88.8)	10 (11.2)			
Physical illness					
Yes (n=26)	20 (76.9)	6 (23.1)	1.23	0.42-3.74	0.684
No (n=130)	95 (73.1)	35 (26.9)			
Mental illness					
Yes (n=17)	10 (58.8)	7 (41.2)	0.46	0.46-1.48	0.139
No (n=139)	105 (75.5)	34 (24.5)			
Addiction					
Yes (n=20)	9 (45.0)	11 (55.0)	0.23	0.08-0.67	0.002
No (n=136)	106 (77.9)	30 (22.1)			
Previous attempt					
Yes (n=26)	10 (38.5)	16 (61.5)	0.15	0.05-0.40	<0.001
No (n=130)	105 (80.8)	25 (19.2)			
Family history					
Yes (n=32)	17 (53.1)	15 (46.9)	0.30	0.12-0.74	0.003
No (n=124)	98 (79.1)	26 (20.9)			
Family stress					
Yes (n=36)	19 (52.8)	17 (47.2)	0.28	0.12-0.66	p=0.001
No (n=120)	96 (80.0)	24 (20.0)			

DISCUSSION

In this study more than half (55.1%) of the patients were in the age group of less than 20 years. This finding is like the findings of Sahinet al⁶ (who found 76.8% cases were aged less than 24 years) as well as findings of Nagendra et al² (who found the peak incidence of suicidal attempt between 15—29 years). However Bansal et al in their study found that around 28% of attempted suicide cases were in the age group 20 years or less¹ and Ramdurg S et al observed mean age of suicide to be 31.5 years⁷. WHO report showed that age from 15 to 30 is at increased risk of suicide⁸.

In this study proportion female patients (69.2%) were more than the male patients (30.8%). On the contrary, Bansalet al¹ as well as Nagendra et al² got the number of

males outnumbered females¹. Ramdurg S et al found the gap between male and female suicide rate was small, where as in Western Literature majority suicidal attempters were females⁷. Sahin et al found that 75.4% patients were females and rests were males⁶. According to WHO report more males committed suicide than females in majority of countries, in China female suicides outnumbered male suicides in rural area and were approximately equal to male suicides in urban area⁸.

In this study majority of the subjects were Hindus (86.5%) which was similar to the findings of Nagendra MR (94.6% Hindus and 5.4% Muslims)². This may be due to large Hindu population in the study area. In the present study majority of patients were middle school

and primary school educated (32.7% and 23.7% respectively). 17.3% patients were illiterate, 26.3% had education secondary and above. Nagendra MR found 27.4% of study subjects were illiterate, 52.2% below or upto matriculation and their findings were in agreement with the findings of other studies². Bansal observed that majority of the cases had high school education which was consistent with the findings of two Indian studies^{9, 10}. Sahin et al found that 80% patients had primary education or were illiterate⁶. The present study observed that majority of the patients (81.4%) belonged to lower socio-economic status groups (V & VI). This finding was in consistent with the findings of the study of Nagendra MR et al who found that most (83%) of the suicidal attempts were from the low socio-economic groups². Most of the studies in different countries have reported that lower social class is an important risk factor for suicide and attempted suicide^{11, 12}. Sahin et al found that 78.8% of the patients were from lower socioeconomic status⁶. In this study more people from rural area (94.9%) attempted suicide than urban area (5.1%). The reason for this could be that the study was conducted in a rural hospital in a rural area. In this study majority of the study subjects were students (43.6%) and housewives (28.8%) and only 16.1% were engaged in agriculture. In the study of Bansal et al housewives constituted the largest occupational group (25%) followed by students (15%) and 9% were farmers¹. The present study found that 42.9% patients were married and 57.1% were single. Percentage of married suicide attempters were found to be 57%, 59%, 48.2% and 62.4% by Bansal et al¹, Ramdurg et al⁷, Sahin et al⁶ and Nagendra et al² respectively. According to WHO divorced, widowed and single people are at increased risk of suicide⁸. In the present study 53.8% belonged to nuclear family and 46.2% to joint family. In the study of Bansal 53% were from joint family¹ whereas the study of Ramdurg et al showed that 41% belonged to nuclear family. In this study 16.7% of the suicide attempters were suffering from physical illness and 10.9% of them had mental illness. In the study of Nagendra MR et al 27% study subjects had physical illness² and study of Bansal et al found 80% had mental disorders¹. The present study observed that 23.1% of the patients had some stress factor in the family which was similar to the findings of the study of Nagendra MR et al where 27.2% had family problems². In the present study suicide intent score which predicts the risk of subsequent complete suicide was high in 26.2% of the attempters, medium in 63.5% and low in 10.3%. High score was found to be significantly associated with age 20 years & above, males, addiction, positive family history, previous suicidal attempt and stress factor in the family. According to Patient.co.uk risk factor for suicide are previous suicidal attempt, alcohol and drug abuse, significant life events⁵. The study of Harris L et al found that high suicide intent was associated with increase in age in both genders and also in divorced, separated and widow or widowers¹³.

CONCLUSION

More than half of the patients were in the age group of below 20 years, were females and belonged to socioeconomic class V. Suicidal intent score was medium and low in majority patients, 26.2% having high score. Different factors like age, sex, marital status, addiction, previous suicidal attempt, family history and stress factors in family influenced suicidal intent score. Patients with high suicide intent score should be referred to mental health specialist for urgent mental health assessment, because they are at high risk of completed suicide. Patient with low or medium score can be managed by counseling.

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