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Original Research Article

A study on suicidal tendency and their socio demographic profile among the patients attending the psychiatric outpatient department, tertiary care hospital, Nellore, SPSR Nellore district, Andhra Pradesh

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ABSTRACT

Background: Suicide is one of the ten major causes of death in India. Intentional self-harm is also associated with long term risk for repeated attempts as well as death by suicide. Individuals differ in the degree to which risk and protective factors affect their propensity for engaging in suicidal behaviours. The present study seeks to explore about suicidal intent among the self-harm attempters.
Methods: This was a hospital based cross-sectional study and includes both male and female patients attending the psychiatric outpatient department of government general hospital, Nellore. After obtaining the informed consent, the necessary data was obtained by a semi-structured interview schedule.
Results: Descriptive analysis of the cases showed that those aged less than 30 years (49.3%), unmarried (52.0%), female subjects (52.0%), urban residents (51.3%) and those belonging to nuclear families (60.6%) were commonly involved. Organo-phosphorus poisoning was the commonly used method (30%). The psychological problems were the most common reason (40.0%) for attempting suicide. Mode of attempt, type of stress, existing physical illness and past psychiatric illness influenced the suicidal attempts.
Conclusions: Gender specific differences were noted with regard to mode of attempt, type of stressors, physical illness, and past psychiatric illness. Young age groups are vulnerable for suicide. Identifying risk factors helps to design interventions to prevent further attempts.

Keywords: Mode of attempt, Reasons for suicide attempt, Self-harm, Suicide attempt, Socio demographic profile

INTRODUCTION

Suicidal behaviour can be conceptualized as a spectrum disease ranging from suicidal thoughts through suicidal attempts or self-destructive behaviour to completed suicide.[1] Suicide is derived from the Latin word, "self-murder". It is a fatal act that represents the person's wish to die.

Suicide attempt is a self-injurious behaviour with a nonfatal/fatal outcome accompanied by explicator implicit evidence that the person intended to die. Para suicide is a term introduced to describe patient who injures themselves by self-infliction but who usually do not wish to die.[2] Globally an estimated 7 lakh suicide deaths occurred worldwide in the year 2021. Suicide is the fourth leading cause of death among 15-19 years old. Around 77% of global suicides occur in low- and middle- income countries. Ingestion of pesticide, hanging and using firearms are among the most methods of suicide globally.[3] India ranks 43rd in descending order of rates of suicide with a rate of 10.6 per one lakh

reported in 2009. Suicide is among the top 10 causes of death in India and among the top 3 causes of death in those between 16 to 25 years of age. The rates of suicide showed a declining trend from 1999-2002, and mixed trend during 2003-2006 with an increasing trend in 2006 to 2010.[4] In India, southern states have a higher suicide rate (15 per lakh) compared to northern states (3 per lakh). Youth are at highest risk in developingcountries.[5] Suicidal attempts are 20 times higher than the completed suicides.[6] There is one suicide attempt for every 3 seconds in the world. In India, prevalence and incidence of suicide attempts are 0.8% and 5.4% respectively. For each suicide, there are 7-10 suicide attempts. The attempted suicide is recognized as one of the important predictors of suicidal deaths.[6]

Patients presenting with history of psychiatric disorder attending to the outpatient services of ACSR Government Medical College and Government General Hospital Nellore Andhra Pradesh were the study subjects. Information was collated from family members to ensure reliability and completeness of data.

The objectives of the present study included determination of socio demographic profile of the study participants attending the psychiatric outpatient department, place, time, reasons and methods of suicidal attempts.

METHODS

This was a hospital based cross sectional study conducted in the psychiatric outpatient department of ACSR Government College and Government Medical College Hospital, Nellore from January to June 2018. All the patients attending the out-patient department psychiatry during the specified period constituted the sample frame for the study.

Inclusion criteria

Only those patients who were permanent residents of urban and rural Nellore were included in the study.

Inclusion criteria

Patients who did not give consent for participation in the study and those with severe psychiatric illness were excluded from the study.

The study subjects fulfilling the inclusion and exclusion criteria were selected by using systematic random sampling technique. A study done in India by Kumar et al has found that psychological problems are the common reason for attempting suicide (53.0%).[7] Based on this estimate (53%), the sample size was estimated at 95% confidence interval with an alpha error of 0.05 and beta error of 0.20 (with a power of 80%) using the following formula-

$$N = \frac{Z_\alpha{}^2 \cdot PQ}{L^2}$$

Where N is the required sample size.

Z_α is the 2 tailed Z value for the given alpha error (0.05) at 95% confidence intervals = 1.96

P is the assumed proportion of patients with psychological reasons for suicide attempts = 53.0%

Q is given by (100- P) = (100-53) = 47

L is the allowable error in terms of absolute precision = 10%

By substituting the values, we get,

$$N = \frac{(1.96)^2 \times 53 \text{ X } 47}{10 \times 10}$$

$$= \frac{3.84 \times 53 \times 47}{10 \times 10}$$

$$= \frac{3.84 \times 2491}{100}$$

$$= \frac{9565}{100} = 95.65 \text{ (rounded off to 96)}$$

Applying a design effect of 1.2 for the sampling method, the required the required sample size was calculated as 106×1.2=115.2 (rounded off to 116). Assuming a non-responsive rate of 10%, the adjusted sample size was calculated as 128. Thus the actual sample of 150 was adequate for the present study.

RESULTS

A slight majority of the subjects were females (53.0%). Majority of the subjects belong to less than 30 years age (49.3%) followed by 31-60 years (39.3.0%). A slightly higher proportion of them are married (52.0%). In terms of educational status, majority of the people belonged to secondary level of education (33.3%) followed by primary level (28.3%). Majority of the subjects belonged to Hindu religion (62.7%) followed by Muslims (22.0%). Majority of the subjects were unemployed (56.0%). It was found that among females, a relatively higher proportion of them were unemployed (62.0%) compared to that in males (49.0%) and the difference is also statistically significant (P=0.02; S). It was found that slightly higher proportion of subjects was urban by residence (51.3%). A majority of the subjects belonged to lower socio-economic status (57.4%) compared to other categories. Thus, the differences between males and females with socio-demographic variables were not statistically significant (except with employment status) (Table 1).

Table 1: Socio demographic profile of study subjects (N=150).

Socio demographic variables	Number of patients			P value
	Male (n=70) (%)	Female (n=80) (%)	Total (%)	
Age group (years)				
Less than 30	33 (47.0)	41 (51.0)	74 (49.3)	χ^2=1.82; P=0.40; NS
31-60	31 (44.0)	28 (35.0)	59 (39.3)	
60 and above	6 (9.0)	11 (14.0)	17 (11.4)	
Marital status				
Unmarried	42 (60.0)	36 (42.0)	78 (52.0)	χ^2=3.37; P=0.06; NS
Married	28 (40.0)	44 (55.0)	72 (48.0)	
Educational status				
Illiterate	7 (10.0)	10 (12.5)	17 (11.3)	χ^2=2.06; P=0.56; NS
Primary	18 (26.0)	24 (30.0)	42 (28.1)	
Secondary	22 (31.0)	28 (35.0)	50 (33.3)	
Higher secondary and above	23 (32.0)	18 (22.5)	41 (27.3)	
Religion				
Hindu	42 (60.0)	52 (65.0)	94 (62.7)	χ^2=0.47; P=0.78; NS
Muslim	16 (23.0)	17 (21.0)	33 (22.0)	
Christian	12 (17.0)	11 (14.)	23 (15.3)	
Occupation				
Unemployed	34 (49.0)	50 (62.0)	84 (56.0)	χ^2=7.61; P=0.02; S
Self employed	24 (34.0)	12 (15.0)	36 (24.0)	
Services	12 (17.0)	18 (23.0)	30 (20.0)	
Residence				
Urban	38 (54.0)	39 (49.0)	77 (51.3)	χ^2=0.46; P=0.49; NS
Rural	32 (46.0)	41 (51.0)	73 (48.7)	
Type of family				
Nuclear	42 (60.0)	49 (61.0)	91 (60.7)	χ^2=0.02; P=0.87; NS
Joint	28 (40.0)	31 (39.0)	59 (39.3)	
Socio-economic status				
Upper	8 (11.5)	8 (10.0)	16 (10.6)	χ^2=0.27; P=0.87; NS
Middle	21 (30.0)	27 (34.0)	48 (32.0)	
Lower	41 (58.5)	45 (56.0)	86 (57.4)	

Table 2: Place and time of attempt by gender (n=150).

Place and time	Number of patients			P value
	Male (n=70) (%)	Female (n=80) (%)	Total (%)	
Place of attempt				
Home	38 (54.0)	53 (66.0)	91 (60.7)	χ^2= 2.24; P=0.13; NS
Others	32 (46.0)	27 (47.0)	59 (39.3)	
Time of attempt				
Unmarried	40 (57.0)	54 (68.0)	94 (62.7)	χ^2= 1.71; P=0.19; NS
Married	30 (43.0)	26 (32.0)	56 (37.3)	

It was found that most of the subjects attempted suicide in the day time (62.7%) and in home itself (60.7%). There were no statistically significant differences between male and female subjects in terms of place and time of suicidal attempt (Table 2).

It was found that the main reasons for attempting suicide were psychological (40.0%) and life events and financial problems (32.3%). However, there was no statistically significant difference between male and female subjects in terms of reasons for suicidal attempt. The organo-phosphorous poisons were the most common method for suicidal attempt (30.0) followed by tablets (26.7%). It was further found that organo-phosphorous poisons were commonly used by males (36.0%) compared to females (25.0%) while tablets were used commonly by females (35.0%) than male (17.0%). The differences in terms of method used between male and female subjects were also statistically significant (P=0.04; S) (Table 3).

Table 3: Reasons and methods by gender (n=150).

Reasons and methods	Number of patients			P value
	Male (n=70) (%)	Female (n=80) (%)	Total (%)	
Reasons for attempts				
Psychological	29 (41.0)	31 (39.0)	60 (40.0)	χ^2=0.19; P=0.90; NS
Life events and financial	23 (33.0)	26 (32.0)	49 (32.7)	
Others	18 (26.0)	23 (29.0)	41 (27.3)	
Methods used				
Organo-phosphorous	25 (36.0)	20 (25.0)	45 (30.0)	χ^2= 6.33; P=0.04; S
Tablets	12 (17.0)	28 (35.0)	40 (26.7)	
Others	33 (47.0)	32 (40.0)	65 (43.7)	

DISCUSSION

Most of the studies have found higher proportion of suicide attempts in females than in males.[8,9] The present study also has found higher proportion in females (53.0%). In the present study, majority of the subjects belonged to younger age groups with highest being in the age group less than 30 years (49.3%). Sahin et al has also found that large majority of the suicide attempters belonged to younger age group of 18-24 years (76.8%).[10] Nagendra et al has also found that the peak incidence of suicidal attempt was between 15-30 years.[11] As majority of subjects in India belong to Hindu religion, many studies have found higher proportion among Hindus compared to those of other religions.[12,13] In the present study also majority of them belong to Hindu religion (62.7%). Many studies have also found that the proportion was higher in educated sections of society than illiterates. Das et al study has found higher proportion of suicidal attempts in secondary level literates than illiterates.[14] In the present study also, higher proportion of them belong to secondary level of education (33.3%). In the current study, it was found that majority of them belonged to lower socio-economic status (57.4%). This is in agreement with many studies which found similar higher proportion among lower socio-economic status group. Kumar et al study has also found that 46% of the subjects who attempted suicide belonged to lower socioeconomic status group.[15]

In the present study, it was found that the main reasons for suicidal attempt are psychological (40%) and life events and financial problems (32.3%). Lack of social interaction and present competitive stress among younger age groups seem to be the main reasons for attempting suicides. Most of them would have attempted at the spur of the moment as evidenced by the fact that whatever commonly available poisons in the house were used by males (organo-phosphorus type) and females (sleeping tablets). It is possible that the subjects might have attempted suicide to attract the attention and sympathy of the peers and family members. Thus, most of the attempts were made in the day time (62.7%) and in home itself (60.7%). This present study points out the fact that the circumstances and the profile of the subjects attempting suicide may be different from those committing suicide.

This study has some limitations. The present study was a hospital based cross-sectional study with no subsequent follow-up. There is a need of prospective studies for further evaluation. Such studies provide a better understanding of the dynamics of personality with psychiatric morbidity and other co morbidities across the lifespan.

CONCLUSION

In the present study, the suicidal attempts are higher in females, married, secondary level literates, urban residents and those belonging to lower socio-economic status. This present study points out the fact that the circumstances and the profile of the subjects attempting suicide may be different from those committing suicide.

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REFERENCES

1. Lonnnqvist JK. Epidemiology and causes of suicide. In: Gelder MC, Andresson NC, Lopezibor Jr JJ, Geddes JR, eds. New Oxford Textbook of Psychiatry. 2nd edn. New York: Oxford University Press; 2009:951-957.
2. Sadock BJ, Sadock VA. Synopsis of Psychiatry. 9th edn. Philadelphia: Lippincott Williams and Wilkins; 2007:919.
3. World Health Organization. Suicide: key facts. Geneva: world Health Organization. 2021. Available from: https://www.who.int/news-room/fact-sheets/detail/suicide. Accessed on 3 July 2019.
4. Government of India. Ministry of Home Affairs. Accidental deaths and suicides in India. New Delhi: National Crime Records Bureau; 2008.
5. Kumar VL. Suicide and prevention, the urgent need in India. Indian J Psychiatr. 2007;49(2):81-4.
6. World Health Organization. Preventing suicide: a global imperative. 2014. Available from: https://www.who.int/publications/i/item/9789241564779. Accessed on 3 July 2019.

7. Kumar CT, Mohan R, Ranjith G, Chandrasekharan R, Gender differences in medically serious suicide attempts: a study from South India. Psychiatr Res. 2006;144:79-86.
8. Sahin HA, Sahin I, Arabaci F. Sociodemographic factors in organophosphosphate poisoning; a prospective study. Hum Exp Toxicol. 2003;22(7):349-53.
9. Bansal P, Gupta A, Kumar R. The psychopathology and the socio-demographic determinants of attempted suicide patients. J Clin Diagn Res. 2011;5(5):917-20.
10. Emslie C, Ridge D, Ziebland S, Hunt K. Men's accounts of depression: reconstructing or resisting hegemonic masculinity? Soc Sci Med. 2006:62(9):2246-57.
11. Sethi BB, Gupta SC, Singh H. Psychosocial factors and personality characteristics in cases of attempted suicide. Indian J Psychiatr.1978;20:25-30.
12. Suicide and suicidal behaviour in women-issues and prevention, a discussion paper. Sydney: Suicide Prevention Australia; 2015.
13. Rao VA. Attempted suicide. Indian J Psychiatr. 1965;7:253-64.
14. Srivastava MK, Sahoo RN, Ghotekar LH, Dutta S, Danabalan M, Dutta TK, et al. Risk factors associated with attempted suicide: a case control study. Indian J Psychiatr. 2004;46:33-8.
15. Kumar PN. Age and gender related analysis of psychosocial factors in attempted suicide: study from a medical intensive care unit. Indian J Psychiatr. 1998: 40(4):338-45.
16. Rao VA. Attempted suicide and suicide among students in Madurai. Indian J Psychiatr. 1972;14:389-97.

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