

Pattern of Suicidal Deaths in Females- A Cross Sectional Study in the Age Group of 12-24 Years

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Abstract

Background: Suicide is the fourth leading cause of death among young males and the third for young females, globally. Suicide affecting the youth is a big loss to the community. Hence, the aim of this study is to identify pattern of suicidal deaths in females belonging to 12-24 years age group.

Methods: A cross sectional study was conducted in the Department of Forensic Medicine, Gandhi Medical College, Secunderabad, which included all the deaths that occurred due to suicide in females aged 12-24 years from January 2017 to November 2018.

Results: Most victims belonged to the age group of 19-24 years (49%) and were from rural area (60%). Majority attempted suicide during day time (72%) and inside their own homes (89%). In 91% of the cases, there was no history of previous attempt and in 92%, no suicide note was found. 55% of deaths occurred on the spot. Most common method of suicide was hanging (53%).

Conclusion: Suicide is a growing public health concern amongst the young. Peer support groups for adolescents and young adults, who have exhibited suicidal behaviours, must be established to help prevent repeated attempts.

Key words: Female suicides, adolescents, suicide note, attempted suicide, methods of suicide.

Introduction

Suicide is the deliberate termination of one's existence, while in the possession and enjoyment of his mental faculties.¹ Suicidal behaviour ranges in degree from thinking about ending one's life, through developing a plan to commit suicide and obtaining the means to do so, followed by attempting to kill oneself, to ultimately carrying out the act, which is termed as complete suicide.² Suicidal acts with non-fatal outcome are labelled as suicide attempts.³

According to the World Health Organization (WHO) Mortality Database, suicide is the fourth leading cause of death among young males and the third for young females, globally.⁴ These figures do not include the suicide attempts, which are almost 20 times more frequent than completed suicide.⁵ Suicide incidence rate per 1,00,000 population for those in the age group of 14-17 years, in the state of Telangana, is 9.52 which is higher than the national average of 0.9% and about 11% of college students and 8% of high school students in the state have attempted suicide.⁶

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Due to several factors associated with gender disadvantage in rural areas, girls have higher rates of suicidal ideation and attempted suicide. Suicide affecting the youth who are capable of doing work, is a big loss to the community. Hence, the aim of this study is to identify the pattern of suicidal deaths in females aged

12-24 years and various methods adopted for suicide among them.

Materials and Methods

The present cross-sectional study was conducted among females in the age group of 12-24 years, who committed suicide and were subjected to post-mortem examinations in the mortuary of Gandhi Medical College and Hospital, Telangana, over a study period of 2 years from January 2017 to November 2018.

All cases of suicides in females aged 12-24 years, who died either before hospitalisation or during treatment due to various complications, were included in the study. All cases where, the cause and manner of death could not be determined due to advanced decomposition and all suspected poisoning cases where, Chemical Analysis Report of Forensic Science Laboratory was negative were excluded from this study.

The family members, relatives and friends were fully explained about the questionnaire and then verbal consent was taken from everyone before asking about

the relevant details pertaining to the study.

A total of 100 cases constituted the sample size following purposive sampling technique. All the details pertaining to the study were obtained from the reliable attendants of the deceased, Investigating officer, First information reports, Inquest reports, Hospital case-sheets, Death summaries, Post-mortem examination reports and Forensic Science Laboratory reports.

All the data obtained was analysed using SPSS software. Descriptive analysis was done and presented in the form of text, tables and graphs.

Results

49 deaths (49%) were recorded in the age group of 19-24 years, followed by 38 cases (38%) which were recorded in 16-18 years age group and the least number of cases were seen in 12-15 years age group with 13 cases (13%). Majority of the cases belonged to the rural areas i.e. 60 cases (60%), whereas 40 cases were from urban background (40%).

Variables		No. of deaths	%
Day of Incidence	Monday	15	15
	Tuesday	12	12
	Wednesday	19	19
	Thursday	13	13
	Friday	16	16
	Saturday	11	11
	Sunday	14	14
Time of Incidence	Day	72	72
	Night	28	28
Place of Incidence	At home	89	89
	Outside home	11	11

Table 1: Details of the incident

91 (91%) victims did not have history of any previous attempts, in 5 (5%) of the cases, there were history of suicides in the family and 2 (2%) of the

victims had attempted suicide in the past. In this study group, only 8 (8%) of the cases left a suicide note while in all other cases i.e. 92 (92%) deaths, no such evidence of suicide note was seen.

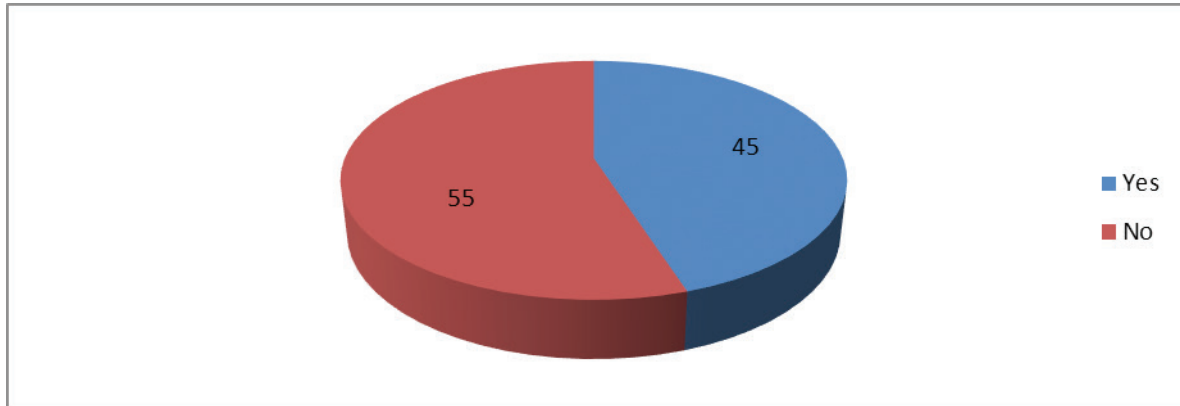


Fig 1: Percentage of victims admitted to hospital

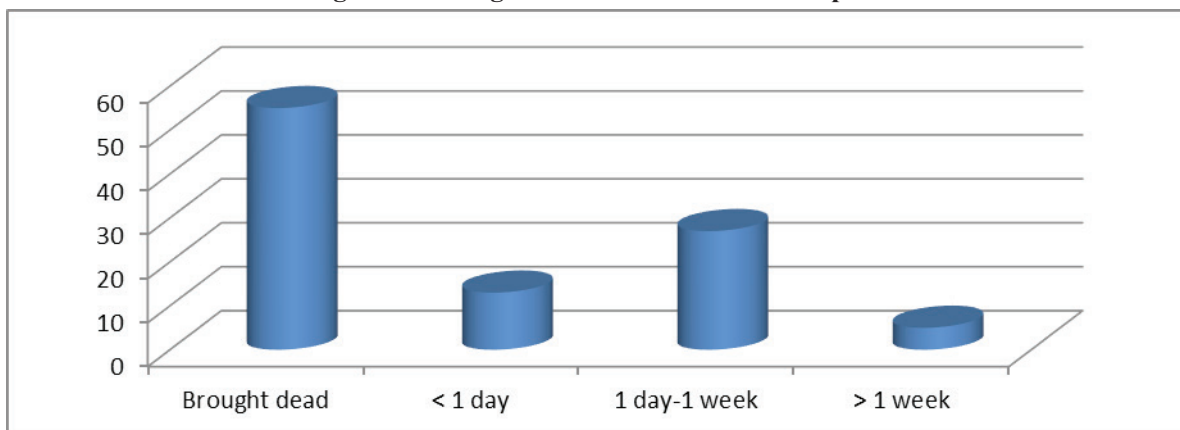


Fig 2: Survival status of victims after hospital admission

As per this study, in majority of the deaths i.e. 53 (53%) of victims, hanging was the most common cause of death. The other causes of suicidal deaths in the decreasing order of percentage of deaths are: self-immolation 30 (30%) deaths, poisoning 13 (13%) deaths, drowning 2 (2%) deaths, fall from height and railway injuries sharing 1 (1%) each.

Discussion

This study was undertaken on 100 suicide cases in Females of the age group 12-24 years which were brought by the police to the Mortuary of Gandhi Medical College and Hospital, Telangana for Medico-Legal autopsy during the period of January 2017 to November

2018.

A study on suicidal risks in the young by Shaw et al showed that the late adolescent period i.e. 15-19 years were at a higher risk compared to other age groups.⁷ But, in the present study, 19-24 years age group constituted majority of the deaths (49%), followed by 16-18 years group which recorded 38% and the least number of cases were seen in 12-15 age group i.e. 13%. According to a study by Cash SJ et al, psychopathology, substance use, child abuse, bullying, internet use, sex-specific and moderating roles of gender play a major role in influencing risk for suicide and suicidal behaviour among adolescents.⁴ A study by Pillai A et al showed that

among young people, suicidal behaviour was found to be associated with female gender as many did not receive a formal education, they were not at liberty to make independent decisions, were physically abused at home, and few of them had suffered common mental disorders.⁸ In the current study population, it was observed that cases were predominant in the Rural group i.e. 60 cases (60%), than the Urban group which recorded 40 cases (40%). Contrary to this finding, a study by Kumar S et al showed that majority of the suicide victims resided in urban communities.⁵ The Census 2011 revealed that the proportion of young people resorting to suicide is higher in rural areas due to growing economic inequalities and existing conflicts between aspirations and reality among the young in rural India.⁹

In the present study, majority of the deaths occurred in the beginning of the week i.e, from Sunday onwards and has increased steadily up to Wednesday which recorded the highest number of deaths and most of the deaths were noted during the day time numbering up to 72 deaths compared with those which occurred in the night time i.e., 27 deaths. Most of the people committed suicide during the day time, especially after an argument or a heated discussion with a family member or a friend. Study by Mohanty S et al, did not show much variation in suicide rates based on the time of suicide attempt.¹⁰ In the present study, most of the deaths were noted in their houses numbering up to 89 deaths compared with those deaths which occurred outside i.e., 11 deaths, because the suicidal decisions are taken in a spur of the moment, typically when nobody was present at the home and usually after having a fight with a friend or a family member. The findings were similar to studies conducted by Ponnudurai et al and Shaw D et al, where majority of the victims had committed the act inside their own homes, possibly due to the sociocultural traditions that restrict women from going outside the household.^{7,11}

According to this study, majority of the victims i.e. 91% did not have any history of previous attempts. In 5% of the cases, at least one member in the family had committed suicide. The least number of deaths were seen in those who had previous failed attempts of suicide i.e., in 2% deaths, contrary to the findings in the study by Shafi et al, where higher number of

victims had a previous history of suicide attempts.¹² The study of suicide letters is one of the prerequisites to the understanding of this complicated suicidal behaviour. In this study group, only 8% of deaths left a suicide note whereas in 91% of the cases, there was no evidence of suicide notes. The fewer number of victims leaving a suicide note depicts that, these suicides were acts of sudden affect rather than being pre-planned. Chia BH et al in their study concluded that the study of suicide letters helps us to understand the mental state of victims prior to their acts.¹³ Similar to study by Kuwabara H et al, in the current study too, cases who left suicide notes adopted more lethal methods of suicide.¹⁴

In this study group, 45% of the suicidal deaths were seen in those who were admitted in the hospital and had died during the treatment. And in majority of the cases i.e. 55% deaths occurred on the spot immediately after committing suicide. Out of those who were admitted in the hospital, 13% cases of the victims had survived for less than 1 day, 27% of them survived for upto a week and in 5% of the cases, death occurred in those victims who survived for more than a week. More number of deaths due to suicide was among people in rural areas as they generally have less access to healthcare than their urban counterparts.

According to the present study, Hanging is the most common cause of death in majority of the cases i.e. in 53% of deaths. Hanging is also the most common method of suicides in studies by Mohanty S et al and Shaw et al.^{7,10} The other means adopted to commit suicide were Self Immolation in 30% of the cases, 13% had resorted to Poisoning, 2% to Drowning, 1% Fell from Height and 1% had died due to Railway Injuries.

Conclusion

Suicide is a complex phenomenon and it is a growing public health concern amongst the young. Suicides especially in females, has been largely underestimated and neglected by the government. Various socio-demographic factors in India make women in rural areas more vulnerable for suicides. To enhance women's ability to cope with various interpersonal and intergenerational conflicts, qualified and trained Mental Health Professionals with a Psychiatrist at the helm of

the team should be employed in Women Police Stations and Family Courts as most of the cases of disputes between the spouses and family problems are dealt with at these centres.

To reduce the burden of suicides in adolescents, parents should be taught to recognize the warning signs for suicide and encouraged to restrict their teenager's access to lethal means. Peer support groups for adolescents and young adults who have exhibited suicidal behaviours or who have contemplated and/or attempted suicide must be established. Opening up of suicide prevention clinics and counselling centres, in all the Medical College Hospitals, District Hospitals, and if possible in Taluka Head Quarters and private hospitals. Such measures will at least help to prevent repeated attempts. Restricting the access to means of suicide including measures for control of availability of pesticides, medications, etc. may help in preventing suicide especially in rural areas.

Ethical Clearance: Taken from the Institutional Ethical Committee, Gandhi Medical College.

Conflict of Interest: Nil

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