

DESCRIPTIVE STUDY ON SUICIDE ATTEMPTERS ATTENDING CONSULTATION-LIAISON PSYCHIATRY SERVICES AT A TERTIARY CARE HOSPITALPUGAZHENDHI K¹, BHARATHI K¹, BALAMURUGAN K², RAVISHANKAR J³

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ABSTRACT

Objectives: Suicidal attempts are more common than suicides. Knowing the sociodemographic profile of patients, psychological causes, and mode of attempts helps gain insight into suicide attempts. This study aims to describe the profile of suicide attempters attending consultation-liaison psychiatry services.

Methods: This was a prospective observational study conducted at the psychiatry clinic, Government Villupuram Medical College and Hospital, Tamil Nadu on suicide attempters between June 2019 and November 2019. Beck's suicide intent scale was used to assess the level of intent.

Results: Of the total of 610 study individuals, the mean age was 28.73±11.73 years, majority were females (57.70%), suicide attempt was more in young adults (59.18%), more in married (64.91%), more in those with secondary school education (54.91%), and more in skilled workers and homemakers. Poison consumption was the most common mode of suicide attempt (92.62%), predominantly insecticides. Alcohol intoxication (39.14%) was the most common psychiatric derangement. Interpersonal conflict (63.44%) was the most common precipitating factor. About 74.92% had less suicidal intent.

Conclusion: Marital conflicts, interpersonal conflicts, and alcohol-related illnesses were the major precipitating factors. Restriction of the availability of alcohol and toxic insecticides can help reduce the incidence of suicide attempts and deaths. The promotion of healthy coping mechanisms and community-based mental care activities can help in suicide prevention.

Keywords: Alcohol, Consultation-liaison psychiatry, Insecticide poison, Suicide attempt.

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INTRODUCTION

Suicidal death can occur throughout the life span of an individual and is the second-leading cause of death among 15–29 years young people globally [1]. Nearly 8 lakh lives are lost every year due to suicidal death and every 40 seconds, a person commits suicide. In 2016, 79% of suicidal deaths occurred in middle- and low-income countries, thus being a global phenomenon. In fact, suicide was the 18th-leading cause of death in 2016 (1.4%). For each individual who died by suicide, there are more than 20 others attempting suicide. According to data published by WHO in 2016, India is placed in the 21st rank for crude suicide rate. India's crude suicide rate of 16.3/100,000 population is higher than the global average of 10.6/10,000 population. Incidence is higher in males (17.8/100,000) than females (14.7/100,000) population [2].

Attempted suicide is defined as a nonfatal self-directed, potentially injurious behavior, with any intent to die as a result of the behavior, which may or may not result in injury [3]. Underlying psychiatric disorders may be a reason for suicide attempts [4]. Hanging and poisoning are the most common methods of suicide attempts by Indians [5]. The female suicide rate at ages 15–24 years was higher than the male rate in that age group and other female age groups. Marriage conflicts play a crucial role, particularly in the suicide of women, in India [6].

Suicide ideation is defined as passive thoughts about wanting to be dead or active thoughts about killing oneself, not accompanied by preparatory behavior. Self-harm is an act with a nonfatal outcome, in which an individual deliberately initiates a nonhabitual behavior that, without intervention from others, will cause self-harm or deliberately ingests a substance in excess of the prescribed or generally recognized therapeutic dosage and which is aimed at realizing changes which the subject desired through the actual or expected physical consequences [7].

Suicide behavior includes suicide, suicide attempts, other suicidal behavior, and preparatory acts. Suicidal intent is being taken as a measure of seriousness of the attempt – “the wish to die.” Circumstances such as socioeconomic deprivation and negative life events due to interpersonal problems lead to an increased risk of suicide and suicide attempts [8]. Adverse life events, especially in the month preceding the self-harm attempt also support the fact that social circumstances play a role in suicides [9]. While conflicts in relationships are the reasons for suicide attempts in young people, it is health or bereavement related in older people [10].

Persons who undertake suicide attempts frequently come to nearby hospital for medical complications arising as a result of self-harm. Hence, these patients, suicide attempters, form a large group of individuals to understand the psychosocial profile of patients who do self-harm. With this background, the aim of the study was to describe the sociodemographic profile of patients, psychological causes, and mode of attempts in suicide attempters attending consultation-liaison psychiatry services at a tertiary care hospital.

METHODS

The present study was a prospective observational study conducted at the consultation-liaison services, Department of Psychiatry, Government Villupuram Medical College and Hospital, Mundiampakkam, Tamil Nadu, India, between June 2019 and November 2019. All patients who had attempted suicide and came to psychiatry outpatient department for psychiatric counseling were included in the study. Patients who did not survive, accidental poisoning or injuries under intoxication without intention of self-harm, homicidal attempts, critically ill patients and those not willing to participate in the study were excluded from the study. Sociodemographic details were recorded in formulated pro forma after getting prior informed consent. Beck's suicide intent scale was used

to assess the level of the intent. Beck's suicide intent scale contains 20 items, each scoring from 1 to 3 points [11]. The total score of 15–19 was recorded as low intent; a score of 20–28 was recorded as medium intent, and a score of 29 and above was recorded as high intent for suicide. Data entry and analysis were done using SPSS software version 17.0 (IBM, New York, USA). Descriptive data were given in summary statistics, while statistical analysis was done using Chi-square test for categorical variables. $p < 0.05$ was considered statistically significant.

RESULTS

A total of 610 consecutive suicide attempters ($n=610$) who attended the psychiatry clinic were included in the study. The age of the patients ranged from 13 years to 70 years and the mean age of suicide attempters was 28.73 ± 11.37 years. More than half of the patients were females (57.70%) ($n=352/610$). Most of the suicide attempters belonged to the young age group (20–35 years) (59.18%) ($n=361/610$). Most of the suicide attempters were married (64.91%) ($n=396/610$). Although 58.23% of the females in the young age group ($n=205/352$) and 60.93% of males in the young age group ($n=156/256$) had attempted suicide and formed the predominant group, females attempted suicide more in adolescence (10–19 years) (27.27%) ($n=96/352$) and males had attempted suicide more in older age group (>35 years) (27.91%) ($n = 72/258$) (Fig. 1).

More than half of the suicide attempters had secondary-level education (54.91%) ($n=335/610$). It was ironic to note that both attempters who were uneducated and those who had up to college education were equal in numbers (19.02%) ($n=116/610$) (Fig. 2). Most of the suicide attempters were skilled workers (23.28%) ($n=142/610$) or homemakers (22.95%) ($n=140/610$) (Fig. 3).

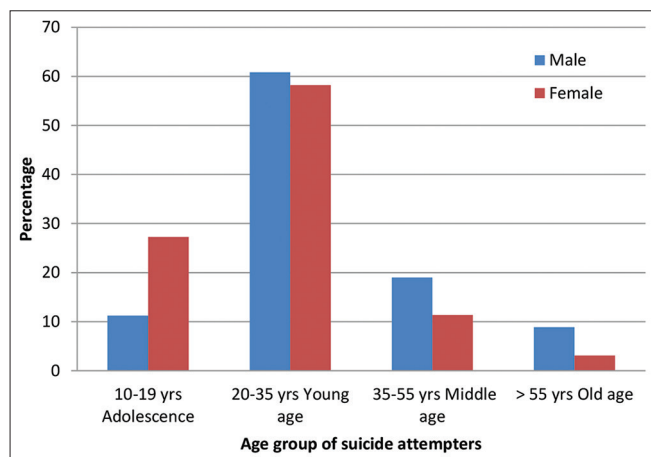


Fig. 1: Distribution of age and sex among suicide attempters in present study ($n=610$)

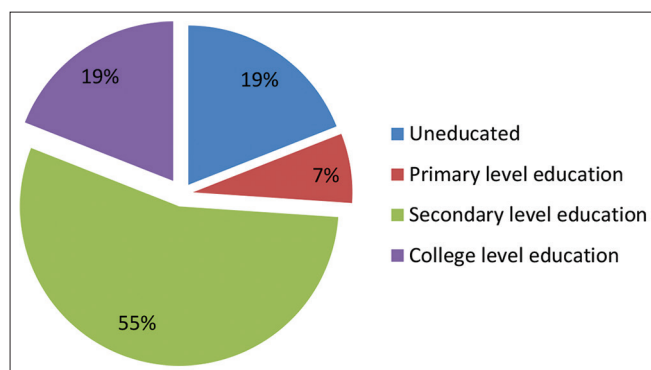


Fig. 2: Distribution of education levels of suicide attempters in present study ($n=610$)

Only 4 (0.66%) patients ($n=4/610$) had family history of suicide. Fifty-four patients had past history of suicidal attempts (8.85%) ($n=54/610$). Poison consumption was the most common mode of suicide attempt (92.62%) ($n=565/610$), while alcohol intoxication (4%) ($n=26/610$), attempted hanging (3%) ($n=18/610$) and falling down from height (0.16%) (1/610) were the other modes of suicide attempt. In the poison consumption mode of suicide attempt, insecticide poisons (organophosphorus, organochlorine) were the most common (28.94%) ($n=220/565$), while plant poisons (oleander seeds, oduvanthalai leaves - *Cleistanthus collinus* and *Abrus precatorius*) (23.54%) ($n=133/565$) and rodenticide poisons (rat killer paste) came as the next choices.

More than a third of the suicide attempters had some psychiatric illness (35.08%) ($n=214/610$). Alcohol use was the most common among these groups contributing to 39.25% ($n=84/214$) and included alcohol dependence, alcohol intoxication, alcohol abuse, and alcohol influence. Other disorders observed were adjustment disorder (19.62%) ($n=42/214$), depression (14.48%) ($n=31/214$), personality disorders (14.01%) ($n=30/214$), psychosis (5.61%) ($n=12/214$), nicotine dependence (3.27%) ($n=7/214$), bipolar illness (0.93%) ($n=2/214$), and borderline intelligence (1.86%) ($n=4/214$). Substance abuse and dysthymia were seen in one patient each.

The most common precipitating factor for suicide attempts was interpersonal conflict in the present study (63.44%) ($n=387/610$). This was followed by alcohol-related problems (17.21%) ($n=105/610$) (Fig. 4.) Using Beck's suicide intent scale, it was found that three-fourths of the suicide attempters (74.92%) had less suicidal intent ($n=457/610$) and 2.96% ($n=18/610$) had moderate- and high- suicidal intent each. Interestingly, one-fifth of the patients (19.18%) ($n=117/610$) had no suicidal intent but had attempted suicide.

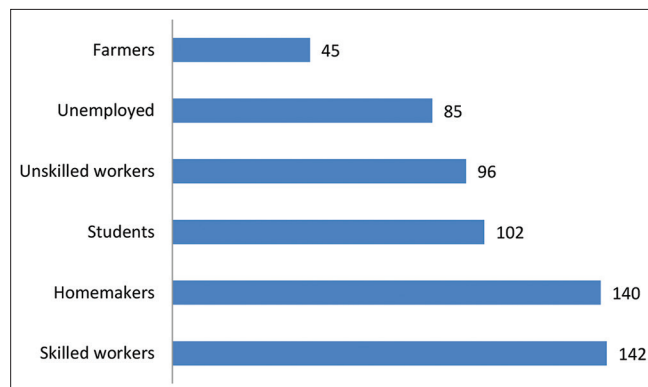


Fig. 3: Occupational status of suicide attempters in the present study ($n=610$)

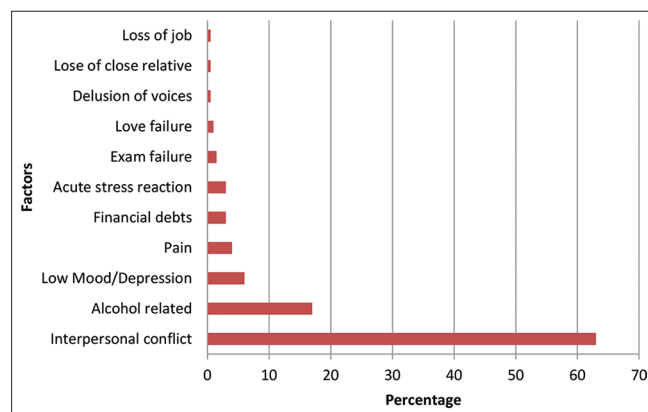


Fig. 4: Precipitating factors for suicide attempts in the present study ($n=610$)

DISCUSSION

This study was undertaken to evaluate the psychological causes in suicide attempters who underwent treatment for attempted suicide at a tertiary care hospital that caters to the needs of rural people. Mode of suicide attempt, sociodemographic details, precipitating life events, and psychiatric morbidity among suicide attempters were described. About 610 consecutive cases of suicide attempters admitted to the hospital between June 2019 and November 2019 (6 months) were included in the study. Patient data were described using sociodemographic pro forma; psychiatric illness was diagnosed using ICD-10 and Beck's suicide intent scale.

In the present study, the majority of suicide attempters were young adults between 20 and 35 years, which was similar to the results obtained in previous studies by Latha *et al.* [12], Gururaj and Isaac [13], and Khan *et al.* [14]. This suggests that young adults constitute a vulnerable group. Females were more common to attempt suicides than males in the present study, which was similar to the study by Afghah *et al.* [15], but Narang *et al.* [16], and Martins Junior *et al.*, had found suicide attempts in males than females [15-17]. More suicide attempters were married in the present study (65%), which was similar to the results by Afghah *et al.* [15].

More than half of the suicide attempters had a secondary school level of education, similar to the results obtained by Afghah *et al.* Homemakers and skilled workers constitute nearly half of the suicide attempters similar to the study by Ramdurg *et al.*, which indicated that they attempt suicide under stress. Poisoning was the most common method employed for suicide attempts in the present study (93%), predominantly pesticide use, but it was tablet poisons in a study by Afghah *et al.* and corrosive use in the study by Ramdurg *et al.* [15,18]. Restricting the availability of organophosphorus and other insecticide compounds and banning the more toxic ones such as weed killers and rodenticides may be helpful in lowering the rate of suicide attempts and suicide deaths [19]. Interpersonal conflicts and alcohol-related problems were the major precipitating factors for suicide attempts in the present study, which was similar to the study by Pawan *et al.*, who found that interpersonal conflicts and financial problems were the major cause for suicide attempts [20]. Modes of attempts and precipitating factors were distinct from Western countries.

One third of patients had some psychiatric illnesses, of which alcohol related psychiatric illnesses such as alcohol dependence, alcohol intoxication, alcohol abuse, and alcohol influence contributed to 39% of patients. The psychosis was present in only 6% of patients. This implies that there is an urgent need to ban the easy availability of alcoholic beverages to minimize alcohol-related psychiatric illnesses and suicide attempts. The central and state governments should make it as a policy to ban alcohol.

Three-fourths of suicide attempters had less suicide intent in Beck's suicide intent scale. Suicide attempts are also used by students, homemakers, and skilled workers as a coping mechanism under stress to communicate their needs and distress. Promoting healthy coping mechanisms and reduction in stress among these vulnerable populations is required to reduce self-harm. Early identification of suicide attempters by primary care physicians and easy access to mental health care by the community should be promoted, which will reduce the incidence of suicide attempts. Prevention of suicide and suicide attempts should form an essential part of community-based mental health-care activities. Suicide prevention strategies need to be implemented in a culturally sensitive manner in region-specific demographics of a country to prevent suicide and suicide attempts.

CONCLUSION

Vulnerable groups of suicide attempters with precipitating factors have to be identified early by community-based mental health centers and

adequately supported. Alcohol availability has to be restricted, which can reduce the number of persons consuming it and thus reducing alcohol-related mental illnesses and crimes. Highly toxic insecticides and pesticides need to be banned, and restrictions on their sale have to be implemented vigorously by Government, to reduce the incidence of suicide attempts and deaths.

Limitations

The present study does not give the true incidence of suicide attempts in the community as suicide attempters coming to the hospital cannot be considered representative sample of population because all cases do not visit the hospital and patients can get discharged before getting psychiatric counseling. Suicide deaths were not included in the present study, which could have shown a higher suicide intent score and brought out more psychiatric illnesses. The study duration was relatively short.

KP conceptualized, designed, and approved the study. KB collected and analyzed the data. KM analyzed and interpreted data. JR compiled and prepared manuscript.

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None.

CONFLICT OF INTEREST

None declared.

ETHICAL APPROVAL

Obtained from Institutional Ethical Committee of Government Villupuram Medical College and Hospital, Mundiyampakkam, Villupuram, Tamil Nadu, India.

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