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Socio-Demographic Profile Of Suicide Attempters İn A Tertiary Medical Centre

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Abstract

Aim: The study's objective is to evaluate the demographic profile, psychiatric comorbidity and nature of attempts in deliberate self-harm cases in a tertiary care centre, Raichur, Karnataka.
Settings and Design: A prospective study of 8-month duration was done in a private medical college and research centre, Raichur, Karnataka.
Methodology: All self-harm cases referred to the department of psychiatry for eight months were included. Sociodemographic details and psychiatric comorbidity were collected using appropriate proforma.
Results: Females had a higher rate compared to males. This study represented adult age, urban background, employed, and matriculation education. More than 65%of all patient's attempts had psychiatric disorders. The Majority had a precipitating event prior to the suicide attempt. The common method of attempt was by use of chemical poisoning.
Conclusions: Suicide and suicidal attempt pose significant social, psychological and medical problems, as evidenced by this, and previous studies need intervention at a community level with significant participation from people.

Keywords: High-performance Work System; Organizational Performance; Return on Assetts, Return on Equity; Earning per Share

I. INTRODUCTION

Suicide is an event which has varied hues with multiple etiopathological factors and has been studied from different etiopathological perspectives like medical, social, economic, ethical etc.[1] It is an honourable death in specific settings like hara-kiri/ seppuku in Japanese culture[2], and in others, it's sinful, like in Indian culture [3], which makes it a multifaceted problem and difficult to understand from the linear model of cause and effect phenomenon.[3-5] suicide is defined as a wish to kill or harm oneself, which can be attempted suicide or completed suicide.[3] The maximum number of suicides (85%) in the world occurs in low- and middle-income countries.[6] More than 100,000 people die by Suicide in India every year.[7] According to NCRB data, the number of suicides in the country from 1997-2007 has shown an increment of 28% (from 95,829 in 1997 To 122,637 in 2007). It also signifies an increase of 3.8% (113,914 to 11,812) from 2006 to 2007. [8]

Suicide attempts range from 10 to 40 times more frequent than completed suicide. There is an estimation of at least 5 million suicide attempts each year; hence suicide attempts will be a

significant public and mental health concern in India.[9].

A WHO multicenter study on incidences of attempted Suicide in Europe found that the highest occurrence was in young adults between 24 and 34 years.[10] As per Indian studies, suicide attempts are more prevalent in females; the Majority were married Hindus, and the rate of suicide was three times higher in rural areas than the overall national rate[11,12,13] Majority stayed in a nuclear family and were unemployed.[14,15] hanging (53.6%), poisoning (25.8%) and self-immolation (7.9%) are the standard methods used to commit suicide, and hanging is the most familiar mode of attempt by the Indian population.[16–17]

However, several studies from Indian backgrounds have reported the existence of psychiatric disorders in suicide attempters, but government and NGOs report more social causes. The affective disorder is the commonest, and substance use disorder is the second. [11,]

The reasons for suicide were multiple, either single or in combination. "Illness" and "family problems" accounted for 23.8% and 22.3% of the various causes of suicides, respectively. [18] Love affairs, divorce, dowry, inability to get married or cancellation (according to arranged marriage system), extra-marital affairs and illegitimate pregnancy, such conflicts relating to the issue of marriage play an important role in the suicide of women in India. [15]A depressing feature is the recurrent occurrence of family suicides and suicide pacts, which are due to social reasons and can be viewed as a protest against archaic societal norms.[19] Social circumstances are essential; those who are living in areas of socioeconomic deprivation or isolated have higher rates of suicide and suicide attempters.[21] Evidence also supports an excess of life events, especially in the month before the self-harm attempt.[20] Frequently, the type of events experienced by younger people is related to relationship difficulties, but it is more likely to be health or bereavement related in older people.[20] Vulnerability factors such as early loss or separation from one or parents, Childhood abuse, unemployment, and the absence of living in a family unit are contributory.[24] Many patients consider their problems insolvable, and although self-harm is an immediate but not long-term response, they often cannot think of any other way out of their situation at the time.[21]

In many countries, including India, subjects who harm themselves frequently present to hospital emergency for medical complications resulting from self-harm. [25] Hence, these suicide attempters form an essential group to understand their psychosocial profile and their coping patterns to life events which give valuable information for making awareness and preventive strategies to reduce the burden of attempters.

With this background, the study aimed to assess the sociodemographic and clinical profile of subjects with suicidal attempts referred to consultation liaison psychiatric services for evaluation for eight months.

II. METHODOLOGY

This study was performed in Navodaya medical college and research centre, Raichur, which is a multispecialty tertiary-care teaching hospital with extensive cross-referral among the various departments of the Institute. All the referred cases were initially evaluated by a junior resident, the senior resident was reviewed by a consultant psychiatrist.

The cases are evaluated for psychiatric illness, diagnoses were made according to the ICD-10, and appropriate treatment plans are formulated and carried out (WHO 1992).[29] A semi-structured proforma was made to document the information regarding sociodemographic data, a detailed psychiatric evaluation for psychiatric illness, immediate precipitating event prior to self-harm (within a week), the method used, family history of psychiatric disorders including suicide or deliberate self-harm, current mental status examination, etc.

"Self-injurious behaviour was defined as a nonfatal outcome accompanied by evidence (either explicit or implicit that the person intended to die)." We defined self-poisoning as cases in which a substance had been ingested to

cause self-harm and self-injury as any episode of self-harm that did not involve self-poisoning. Recreational drug overdose poisoning was excluded.

After the initial evaluation, these patients were followed up in the in-patient setting until they were physically stable. Then, depending on the mental status examination and risk of future attempts, these patients are either transferred to the psychiatry ward or are followed up in psychiatry OPD.Psychiatry management usually involves treatment by pharmacotherapy or psychotherapy, or both.It was a prospective study carried out for eight months, from December 2020 to July 2021. Ethical committee approval was sought, and informed consent was taken from patients/relatives.

III. RESULTS

This study was performed in Navodaya medical college and research centre, Raichur, which is a multispecialty tertiary-care teaching hospital with extensive cross-referral among the various departments of the Institute. A total of 245 patients were included in the research, out of which 172 (70.2%) were females and 73 (29.8%) were males.

According to the demographic data of 245 patients, the distribution of patients in terms of literacy was illiterate 13 (5%), up to 5 standard 48(19.6%) up to 10 standard 117(46%) Degree38 (15.5%) professional29 (11.8%), respectively. The demographic data among patients were also categorised according to marital status, occupation, type of family and urbanisation; according to the results obtained, suicide attempts were seen more in married patients 155(63.3%), followed by single patients74(30%) and divorced 16 (6.5%) respectively.

Suicide attempts were seen more in housewives 85(34.7%), followed by unskilled workers77 (31.4%), full-time jobs 45(18.4%) unemployed 38(15.5%). Data obtained also showed that more suicide attempts patients were living in joint family178(72.6%) than in nuclear family42(17%) and extended family 25(10.2%) as well, as the patients attempting suicide were more belonged to rural areas 193(78.8%) than urban area 52(21.2%). (Table 1)

Table 1: social demographic data (N -245)

A	Gender	
	Male	73 (29.8%)
	Female	172(70.2%)
B	Age	29.5
C	Education	
	illiterate	13(5%)
	upto 5 std	48(19.6%)
	upto 10 std	117(46%)
	Degree	38(15.5%)
	professional	29(11.8%)
D	Marital status	
	Single	74(30%)
	Married	155(63.3%)
	divorce	16(6.5%)
E	Occupation	
	Unemployed	38(15.5%)
	house wife	85(34.7%)
	unskilled workers	77(31.4%)
	full time job	45(18.4%)
F	Family	
	nuclear	42(17%)
	joint	178(72.6%)
	extended	25(10.2%)
G	Rural	193(78.8%)
	Urban	52(21.2%)

The comorbid psychiatric illness was assessed in the patients, and it was found that the patient had more than one comorbid psychiatric illness. The patient suffering from Emotional unstable personality disorder/traits accounts for 48% of the total patients, followed by Depressive disorder 40%, Alcohol dependence syndrome 32%, Schizophrenia 9%, Generalised Anxiety disorder 27%, and Adjustment disorder 23%, Bipolar disorder 15% respectively (Table 2).

Table 2: Comorbid mental illness

Psychiatry disorder	N%
Emotional unstable personality disorder/traits	48%
Depressive disorder	40%
Alcohol dependence syndrome	32%
Schizophrenia	9%
Generalised Anxiety disorder	27%
Adjustment disorder	23%
Bipolar disorder	15%

The probability of precipitating event before self-harm were recorded, and it was found that Interpersonal problems with family members account for 65% of total participants, followed by Interpersonal problems with a spouse at 65%, Job loss/Job-related stress at 35%, Exam failure 27%, Relationship failure 18%, Interpersonal problems with friends 16%, Insufferable pain 15%, Delusions 10% respectively (Table 3).

Table 3: Probable precipitating event

Interpersonal problems with family members	65%
Interpersonal problems with friends	16%
Interpersonal problems with spouse	65%
Exam failure	27%
Relationship failure	18%
Job loss/ Job related stress	35%
Delusions	10%
Insufferable pain	15%

Different suicide attempts were also assessed, and it was recorded that attempts with household phenyl account for 38%, followed by Hanging 32%, Pesticides consumption op compound 23% and Tablets consumption 7%.(Table 4).

Table 4: Mode of attempt

Hanging	32%
Pesticides consumption op compound	23%
House hold phenyl	38%
Tablets consumption	7%
Jumping from building	-

IV. DISCUSSION

The study was performed in a tertiary medical care centre for eight months, looking into the social demographic profile of suicide attempts. The mean age of the active participants in this study is around 29.5 years, with female patients (173) being more than male attempters (72) which is consistent with the previous studies.

Studies concerning the peak occurrence of suicidal attempts had shown increased incidence in the second and third decades of life.[12] These findings confirm that attempted suicides are rising rapidly among youths. The younger age for attempters and higher age for completers reported in western studies is similar to what is seen in the present study.[26] .

Compared to western reports, in both genders, suicide and attempted suicide were significantly high among married women in the present study. A similar observation has been reported from India in suicide [27]

In this study, the majority had studied till 10th std 46%, and very few had professional degree11.8%, which reflects education plays a protective role against suicide.

Marriage is generally protective against suicide; this empirical regularity is referred to as the "coefficient of preservation" based on Durkheim's 1897 seminal monograph Le Suicide.[22] Persons living alone are at particular risk.[23] However, in this study, as reflected by other previous Indian studies, it is common to find a higher proportion of attempters being married.[21] A considerable proportion of participants (65%) had Interpersonal relationship issues related to marriage. Similar results were shared by the Multinational study by Fleischmann et al. in which subjects from an Indian centre who attempted Suicide/indulged in self-harm were more frequently married than single. [26]

Shukla et al. (1990) have put forward several reasons for suicide being more common in married in India. Here marriage is a social obligation performed by the elders irrespective of the individuals' preparedness for it. Hence several adjustment problems could arise among married individuals. Divorce is socially frowned upon and difficult; suicide provides the only escape. [29]

Most of the suicide attempters were living in a joint family (72%), which can act as a double edge sword leading to such attempts. Forty-two suicide attempters were living with spouses and children. This again acts as one of the risk factors with lack of support and guidance from elders, which we can experience in a joint family [30]

Almost 80% of the cases admitted had a rural background, which may reflect less adequate knowledge and awareness about stress management, similar to earlier studies.[19]

The majority of the patient had a co-morbid psychiatric illness. 48% had suffered from emotionally unstable personality disorder .40% of the cases had depression in the past two months before the precipitating event, which was not treated[20,32]. Alcohol dependence was noted in one-third (32%) of cases, especially in males with a history of Organ phosphorus compound poisoning. Again there is a lack of proper awareness regarding alcohol dependence, its harmful effects and the availability of treatment leading to life-risking behaviour.[9,17]

The majority of the cases (75%) had to precipitate life events before a suicidal attempt[11], and most of the cases had a financial loss in the form of unemployment (35%) and healthcare expenditure because of Covid treatment, which similar to increase suicide in farmers due to financial difficulties. [33,34] Although some Indian studies have found a higher incidence of suicide in men than in women, others have found the contrary.

The most usual method of suicide attempt was chemical poisoning, mainly household phenyl use and agricultural OP compound poisoning, which constituted nearly 50% of the cases admitted to the tertiary Medical Centre and were similar to those seen in many other Indian studies.[37] Hanging as a mode of suicidal attempt constituted nearly one-third (32%) of the cases predominantly seen in the female patient.[7]

In India, most male farmers have easy access to insecticides. Similarly, because of limited mobility outside the home, as most are homemakers, females have more accessibility to medicines, corrosives, and kerosene.[36]

It has been assessed in an Indian study that when the sale of pesticides was restricted by law, the mode of suicide changed while the total number of suicides remained static. [35] The standard method of suicide attempt was poisoning, and pesticides were used most frequently, restricting the availability of organ phosphorus compounds. Banning the more toxic ones and efforts to decrease the period between the ingestion of the poison and initiation of treatment by having poisoning treatment facilities in primary Healthcare centres may help prevent or lower the rate of suicidal attempts[39]. Around 7% of cases had a history of tablet consumption procured from the nearby pharmacy for the planned attempt, which needs to be regulated[39].

V. LIMITATIONS

The main limitation of this study is that it is a hospital-based cross-sectional study. Community-based longitudinal studies can reveal some more factors and avoid selection bias. Our sample cannot be considered a true representative of the population as all cases presented with suicide attempters were not referred for psychiatric consultations; some are discharged prior to assessment, and in many cases, families do not disclose the facts to the treating doctors due to legal consequences. The number of attempters who were not referred or died was not collected.

VI. CONCLUSIONS

The young age group in this study represents the most vulnerable group in need of psychiatric help. Most patients were diagnosed with psychiatric illness at presentation, which argues for the need for early, prompt diagnosis and treatment of such cases to prevent such future attempts. Public education for early identification and help-seeking for mental disorders, awareness regarding this in the healthcare staff, and facilities for managing common mental disorders in rural and urban areas would probably help. Our findings suggest that the general population also uses suicide

attempts as a coping mechanism under stress to communicate their needs and distress. Hence, promoting healthy coping mechanisms and reduction in stress is required to reduce self-harm. It highlights that every case of suicide attempt needs a thorough psychiatric evaluation.

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