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Psychosocial Profile, Mode of Attempt and Psychiatric Co-Morbidity in Attempted Suicide Patients – A Study From South India

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I. Introduction

Suicide is the tragic loss of human life, which is untimely and devastating. Suicidal behaviour is all the more mystifying because it is a mindful volitional act. It is a lethal act due to a complex interaction of social, environmental, biological and cultural factors working on an individual's life. The curse of suicidal behaviour touches many lives and knows few limitations. More than one lakh persons (1,34,599) in India lost their lives by committing suicide during the year 2010, this indicates an increase of 5.9% over the previous year's figure (1,27,151). Rate of suicides, i.e., the number of suicides per one lakh population, has been widely accepted as a standard yardstick. The All India rate of suicides was 11.4 during the year which is marginally higher than 10.9 reported in the year 2009. Sikkim reported the highest rate of suicide (45.9) followed by Puducherry (45.5), A & N Islands (36.1), Chhattisgarh (26.6) and Kerala (24.6) in 2010 (1). Suicide attempt rates are found to be 10–40 times higher than rates for completed suicides (2). The rates of death show only a northward increase all over the world, with estimates of one death every 20's by 2020 (3). In Asia, around 5 lakh people die by suicide every year, representing more than $3/5^{th}$ of all suicides worldwide (4). Despite such high numbers, suicide has engrossed less attention in Asia than it has in Western countries. The situation is worse in India, where the last recorded deaths due to suicide were 134,599 (5) with an annual suicide rate of 11.4. In recent years, suicidal attempts have been increasingly studied since they pose a high risk of going on to a completed suicide (6). A suicide attempt refers to engagement in a potentially self-injurious behavior in which there is at least some intent to die (7).

Steady cross-national risk factors include being female, younger, less educated, unmarried and having a mental disorder (8). The strongest diagnostic risk factors were mood disorders in high-income countries but impulse control disorders in low and middle income countries (8**)**. One or more diagnosis on Axis 1 was made for 93% of victims and the most prevalent disorders were depressive disorders and alcohol dependence (9). Human beings are unique, as are their reasons for suicide. National Crime Records Bureau statistics state that social and economic causes have led most of the males to commit suicide whereas emotional and personal causes have mainly driven females to end their lives (1). Methods used for suicidal attempts are mostly "non-violent" and in the WHO multicentre Study 64% of males and 80% of females used self poisoning (10). There is difference in the methods used between countries and this may be related to the differences in the accessibility of certain methods. More than 50% of the suicide attempters made more than one attempt, and nearly 20% of the second attempts were made within 12 months after the first attempt (2). Socio-demographic risk factors linked with repetition are belonging to the age group of 25 to 49 years, being divorced, unemployed, and coming from low social class (10). In this above back ground the present study has been undertaken with the aim to assess the psychosocial profile, mode of attempt and psychiatric disorders in attempted suicide in a Government Hospital in Tamil Nadu.

II. Method

One hundred and fifty six patients, referred from a General Hospital, South India served as sample. They came for the treatment during the month of October to December, 2014 with a history of attempted suicide. The written informed consent obtained from them. All patients were above 18 years of age and were in clear sensorium at the time of consent and administration of the study. These patients had been initially admitted to the emergency ward of the hospital and after undergoing acute medical care for at least 3 days, had been sent to the Department of Psychiatry. In addition, a detailed case record form also recorded the mode of attempt and causes for the attempt. They were also diagnosed according to ICD 10.

III. Results

Most patients were married (52%) and female gender constituted (53%). Majority of them were Hindus (96%) and hailed from low socioeconomic status (84%). Mostly (89%) had presented with their first attempt. The frequent method of suicide adopted was the consumption of OPC poison (45%), followed by rat killer (13%) and ant killer poison (8%). Conflict with family members (42%) were cited as the most frequent reason for the suicidal attempt. Especially the conflict with spouse (22%), health problems (8%), financial issues (5%), death of dear ones (3%) and under the influence of alcohol (3%) were the next most frequently cited reasons. There were no dropouts or patients who refused consent for the study.

Table 1 Socio-demographic variables of the attempted suicide patients

		No. of cases	**Percentage**
Gender	Male	73	47
	Female	83	53
Marital Status	Married	81	52
	Unmarried	74	47
Habitat	Rural	131	84
	Urban	25	16
Religion	Hindu	149	96
	Christian	5	03
	Muslim	2	01
Family type	Joint	107	31
	Nuclear	49	69
Socio-economic status	Low	131	84
	Middle	25	16

Table 2 Clinical variables of the attempted suicide patients

Sl. No	**No. of attempts**	**No. of cases**	**Percentage**
1.	1	139	89
2.	2	14	9
3.	More than 3	03	2
	Mode of attempt		
1.	OPC	70	45
2.	Rat killer	20	13
3.	Ant killer	13	8
4.	Hanging	12	8
5.	Sedative	6	4
6.	Oleander seeds	6	4
7.	Cutting throat	4	3
	Precipitating factors for attempt		
1.	Conflict with family members	65	42
2.	Conflict with husband/wife	35	22
3.	Health problems	13	8
4.	Financial issues	8	5
5.	Death of loved ones	4	3
6.	Under the influence of alcohol	4	3

Table 3 Psychiatric co-morbidity of attempted suicide patients

Sl. No	**Psychiatric disorder**	**No. of cases**	**Percentage**
1.	Adjustment disorder	58	37
2.	Impulsive reaction	31	20
3.	Alcohol dependence syndrome	18	12
4.	Depression	16	11
5.	Alcohol abuse	6	4
6.	Borderline Personality Disorder	5	2

IV. Discussion

Attempted suicides are an entirely preventable cause of death, especially when 1 in 10 attempts goes on to a completed suicide (3). With increased urbanization leading to increasing isolation, suicides and attempted suicides are becoming increasingly common. This study observed OPC poisoning to be the most common cause of attempt, similar to that observed earlier from a different part of the country (11) as well as to the national report on suicides (1) and to other international studies from neighboring regions (12–15). The most common agents used for suicidal attempt are organophosphates and other household poisons. Studies conducted revealed that the method of suicide is poisoning (36.6%), hanging (32.1%) and self-immolation (7.9%) were the common methods used to commit suicide (Accidental Deaths and suicides in India, 2005). Domestic quarrels (48%) and relationship issues (23%) were found to be the major reasons to attempt suicide in our study which confirms the trend of other studies from India (16). Financial problems (18%) seemed to notable cause leading to suicide which is similar to the observations made in few earlier studies (17).

Psychiatric disorder: In our study more than 80% of the suicide attempters had psychiatric disorder and adjustment disorder (37%) and alcohol dependence (12%) were found to be most common diagnosed disorders. On the contrary, in other studies it was observed that about 90% were diagnosed with at least one psychiatric disorder. Co-morbidity of two or more psychiatric disorders was also reported. Family problems and medical illnesses were the commonly mentioned causes for attempting suicide, which is again similar to earlier reports (3). With such similarities noted, there remains a high risk of repeat attempts being made (5). Although only 11% of our sample had presented with repeat attempts, the 1-year incidence of repetition has been estimated at 16% and that of fatal repetition at 2% (18). Other authors also (19) confirm how previous suicide attempts increase the risk of suicide 30–40 times and are the strongest predictor of further suicidal behavior. The presence of a psychiatric disorder is among the most consistently reported risk factors for suicidal behavior (20). This study also observed a prevalence of more than 80% psychiatric co-morbidity in our sample population. In addition, about 12% also had alcohol use disorders. With regard to personality disorders, borderline and dependent personality was detected in small numbers in contrast to higher numbers from Western countries. This is supported by several studies (21) which have observed the greatest risk factors to be mood disorders, other depressive disorders, anxiety disorders, alcohol misuse, drug misuse and personality disorders.

Other reported risk factors include previous inpatient treatment, unemployment, frequent change of address, hostility, hopelessness and living alone (22). Yet, one must still keep in mind that these would not explain the high rates of suicide among farmers or the contribution of domestic violence/child abuse on suicide rates. However, the differences in both reasons and mode of attempt are similar to what has been observed by the national report on suicides (4). Therefore, risk factors for suicidal behaviors that have been found in this research include being of either gender, being married, and having any psychiatric co-morbidity including mood disorders, alcohol use, personality disorders and chronic medical illness which are often are preceded by stressful events, including family and romantic conflicts (23). This study has a range of limitations. Firstly, patients were selected from Government hospital emergency units. Secondly, samples were volunteers. Yet, knowing that patients with attempted suicides often try to hide the fact due to stigma or fear of the legal consequences (24), it is therefore believed that any information gathered from this populace could indeed serve as a valuable instrument to plan and chart public policy.

V. Conclusion

Thus, it can be concluded that substantial number of attempters had psychiatric disorder. Early diagnosis of the psychiatric disorders and supportive measures for various stressors would help in prevention of suicidal attempts. Lack of restriction for procurement of oral agents, easy accessibility and impulsive nature of the attempters may be the reason for the preference to use these agents for attempting suicide. Taken together these findings, our results lead us to the conclusion that the variables enhancing the risk of suicide among the vulnerable groups if identified and the predictive items linked with suicidal risks are enlisted, it would efficiently help in early detection and prevention of suicide attempts. Thus, many lives could be saved in time. Our findings also revealed that suicide attempts are treated as a Coping mechanism by attempters under stress to express their needs and distress. Hence, creating awareness about healthy coping mechanism and stress management is required to reduce such attempts.

Care of patients who present with an attempted suicide should include routine psychiatric and psychological assessment. This is crucial since such patients generally leave accident and emergency departments without being comprehensively assessed by a well-qualified health care professional or do not receive a specialist psychological assessment. In addition, for people with psychiatric disorders such as depression, alcohol dependence

and personality disorders, psycho-education of the family plays a vital role. Repeated visit to a health care professional either in person or on telephone might help prevent repeat attempts.

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