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A STUDY OF DETERMINANTS OF SUICIDE ATTEMPT IN PATIENTS ATTENDING A TERTIARY CARE HOSPITAL - A CROSS SECTIONAL STUDY .

Psychiatry

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ABSTRACT

Context: Like everywhere else in the world suicide attempts in india have been increasing progressively.Assessment of the lethality of suicide attempts is a neglected topic in the literature. **Aim:** To assess determinants of suicide attempt in patients attending in a tertiary care hospital **Settings and Design:** 100 consecutive suicide attempt patients referred and admitted in a tertiary care hospital were evaluated. **Methods and Material:** A written informed consent was obtained from the study participants. Socio-demographic data were taken from the patients. Columbia - suicide severity rating scale (C-SSRS) and scale for assessment of lethality of suicide attempt (SALSA) and a semi-structured questionnaire were administered in this study . Statistical analysis used: Data were analysed using descriptive statistics to analyze the number of attempts , antecedent factors , and socio-demographic variables. Chi-square test was used to analyze the significance of association. **Results:** Most common mode of suicide attempt was poisoning in males and drug overdose in females, overall 71% attempted suicide is by poisoning ,where as 86 % attempted for the first time. More lethal attempt was with drug overdose (87%) , and poisoning (61%) .There was statistical significant result on method and lethality of attempt (p value <0.005). **Conclusions:** According to the study findings, attempted suicide is the burning issue as it is 10– 25 times more than completed suicide and the most important public health concern.

KEYWORDS

suicide attempt, Lethality, C-SSRS,SALSA.

INTRODUCTION

Suicide attempt or suicidal gesture is a suicidal act with intent to die that does not end in death.Suicidal attempts are a significant public health problem .Suicide rate in india is 10.3[5]. Although,it is difficult to predict who will attempt suicide, a number of factors may increase the risk for suicide including gender,support system, genetic liability, childhood experiences and the availability of lethal means. The majority of suicide attempts are transient and the time between contemplating suicide and the attempt is less than 5 min for many attempters. The choice of method depends on availability, accessibility and perceived lethality of the method, intensity of intent to die and other related socio-cultural factors. In india poisoning, self hanging, self immolation where the common methods used to commit suicide[5].

AIM

To assess determinants of suicide attempt in patients attending in a tertiary care hospital

OBJECTIVES

Primary Objectives

1. To determine severity, lethality and method of suicide attempt .
2. To find association of sociodemographic factors to determinants of suicide attempt.

Secondary Objectives

1. To determine the accessability and availability of suicide method .
2. To determine the antecedent factors and precipitating factors of suicide attempt.

SUBJECTS AND METHODS

This study was carried out at the tertiary care hospital . The Institutional Ethical Committee gave its approval to the study. Male and female patients between the ages of 18 and 60, who had been attempted suicide and admitted in tertiary care hospital comprised the study population. A sample of 100 consecutively consenting patients was chosen from this group. The study excluded patients with organic brain syndrome ,mental retardation and patients who were unwilling to provide informed consent.

Procedure

The participants were explained about the nature of the study, and written informed consent was obtained. The socio-demographic and clinical information were recorded . The severity of suicide attempt was assessed using the Columbia suicide severity rating scale (C - SSRS)[1]. The socioeconomic status was assessed using the Kuppuswamy's Socioeconomic Status Scale. The assessment of lethality was done by using the scale for assessment of lethality of suicide attempt (SALSA)[2]scale .

Statistical Analysis

Statistical analysis was done using using statistical software version 22.0.Qualitative variables were presented as percentage with their 95% confidence intervals. Quantitative variables were presented as means and their standarad deviation .Descriptive statistics was used to analyze the no of attempts , antecedent factors , and socio-demographic variables.. Chi-square test was used to analyze the significance of association.

RESULTS

Demographic variables : Out of 100 patients in the study 52% male, 48 % female age between 18-30 years are 56%,31 – 40 years are 26.5%,40-60 years are 17.3 %. 55% are from rural area and rest of them from urban background. 94% belonged to nuclear family,76% are married and 55% from upper lower socioeconomic status.

Table 1: Sociodemographic Variables

AGE GROUP	No. of cases	Percentage
18 - 30	57	57.0%
30- 60	43	43.0%
SEX		
f	49	49.0%
m	51	51.0%
DOMICILE		
rural	57	57.0%
urban	43	43.0%
FAMILY TYPE		
joint	6	6.0%
nuclear	94	94.0%
RELIGION		
hindu	94	94.0%
muslim	6	6.0%

EDUCATION		
literate	95	95.0%
illiterate	5	5 .0%
OCCUPATION		
skilled labour	44	44.0%
unskilled labour	56	56.0%
MARITAL STATUS		
married	75	75.0%
unmarried	25	25.0%
SOCIOECONOMIC STATUS		
lower	56	56.0%
middle	44	44.0%

Method of attempt & no of attempt : Most common mode of suicide attempt was poisoning in males and drug overdose in females, overall 71% attempted suicide is by poisoning . 86 % attempted for the first time.

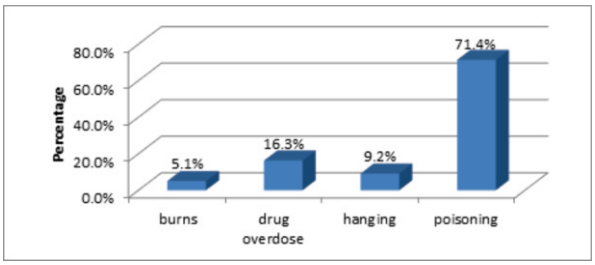

Figure -1 Mode Of Suicide Attempt

Lethality of attempt: More lethal attempt was with drug overdose (87%) , poisoning (61%). There is satistically significant result on method and lethality of attempt with (p value < 0.005).

Table 2 : Scale For Assessment Of Lethality Of Suicide Attempt

Components of SALSA	SALSA score	Choice Of Suicide Method				Total	Chi-square value	p-Value
		Poisoning (n=70)	Drug overdose (n=16)	Hanging (n=9)	Burns (n=3)			
Method Of Attempt	4	91.4 %	93.8%	22.2%	33.3%	82	34.714	0.001
	5	8.6%	6.3%	77.8%	66.7%	18		
Rescuability	3	1.4%	0.0%	0.0%	0.0%	1	14.269	0.027
	4	81.4 %	62.5%	33.3%	33.3%	73		
	5	17.1 %	37.5%	66.7%	66.7%	26		
Physical Consequences	1	17.1 %	25.0%	0.0%	33.3%	17	31.972	0.001
	2	35.7 %	43.8%	11.1%	0.0%	33		
	3	40.0 %	25.0%	55.6%	0.0%	37		
	4	7.1%	6.3%	22.2%	33.3%	9		
	5	0.0%	0.0%	11.1%	33.3%	2		
Medical Intervention	4	95.7 %	100.0 %	55.6%	66.7%	90	21.164	0.001
	5	4.3%	0.0%	44.4%	33.3%	8		
Global Impression	4	20.0 %	25.0%	0.0%	0.0%	18	3.294	0.348
	5	80.0 %	75.0%	100.0%	100.0 %	80		
score (5 - 25)	10-20.0	61.4 %	87.5%	22.2%	33.3%	60	15.624	0.001
	> 20	18.6 %	12.5%	77.8%	66.7%	24		

Severity of attempt : Suicidal behaviour was severe by actual and preparatory attempts,required medical intervention in majority of participants and 14 0ut of them used potential lethal methods by hanging ,burns and poisoning. 25 males attempted suicide under alcohol intoxication by poisoning method. Marital conflicts ,relationship breakup ,financial unstability are the main reasons for attempt in this study . Most of them attempted suicide at home & during evening time.

DISCUSSION

Of 100 patients, 53 were male and 47 were female. This shows suicidal attempts were more common in males than females. This is similar to most of Indian studies [4] but in contrast with other studies [5] where female predominance is noted. As its known that, men are less likely to seek help, admit the severity of symptoms, or accept treatment, increasing their likelihood of using lethal means of suicidal attempt.Where as, women tend to have more social support, more willing to seek help and lower rates of alcohol and substance use disorders, all of which may have protective effects.

Age Group

Mean age of the sample was 28.35 years (± 8.29). The youngest patients were 18 years of age. The oldest patient was 55 years of age. Majority of patients, 55% belonged to 18 – 30 years of age group. All over world the attempted suicide rate among adolescents and young adults is alarmingly increasing. This is in accordance with other Indian studies[3]

The particular vulnerability in adolescents and young adults may due to emotional turmoil, interpersonal problems, increase in alcohol and substance abuse, breakdown in extended family, job difficulties and academic setbacks.

Marrried Population

55% of study population was constituted by married patients, 35% were unmarried and 10% belonged to others (separated, divorced and widowed). Similar to findings reported by other studies.(3) . 75% of study population was constituted by married patients, 25% were unmarried. Probable reasons in married individuals were lesser likelihood of social integration, feeling of a sense of irresponsibility towards others, decreased adaptability to stressful circumstances , lack of patience .

Narang et al 2000, reported 30% were housewives, 23%were students, 8%were unemployed, 14% were shop owners in their study at medical college Ludhiana.In the present study, housewives also formed the majority; which is in accordance with the abovestudy [6].

Housewives are more likely to be exposed to interpersonal problem with parents, in-laws, spouse and other family members this could be probable reason for attempting suicide in these population.

Education

All patients had some form of formal education. 61% of the patients had education below intermediate and 39% educated above intermediate. There is a possibility of higher level of education is offering better ways of thinking and perceptual processing .

Employment

In the present study, 14 patients were belonging to middle class having percapita income of family between 300-499 rupees. They were unemployed and attributed suicidal attempt for being jobless. In the present study, housewives constituted33%, students 23%, shop owners 16%, skilled workers5%, unemployed 14%, and others (laborers, farmer, retired) 9%.

Family Type

Nuclear family is an autonomous unit on which the impact of stressors is more than the extended family. As observed by other studies [3], we also found that people from nuclear family constituted majority (57%) in the present study.

Method Of Attempting Suicide

Of 100 patients, 73(73%) patients used poisoning as method of attempting suicide, 54 of them used organophosphorous (OP) compounds, 19 used other poisons (phenyl, rodenticide). 21 (21%) patients adopted drug over dosage as the method of attempting suicide. Hanging (3%), self-immolation (2%), kerosene consumption (1%)

were the rare methods adopted by our population. [5]

The results from the present study are in keeping with Indian studies [7]. Michel et al 1994, found a 46% usage of benzodiazepine in suicide attempters, often in combination with other drugs and alcohol.

Lethality Of Mode

More lethal attempt was with drug overdose is 87% ,poisoning is with 61%.there is signifanct result on method and lethality of attempt .(p value < 0.005). Suicidal behaviour was severe by actual and preparatory attempts,required medical intervention in majority of participants and 14 out of them used potential lethal methods by hanging ,burns ,poisoning. 25 Males attempted suicide under alcohol intoxication by poisoning method.Marital conflicts ,relationship breakup ,financial unstability are the main reasons for attempt in this study .Most of them attempted suicide at home & during evening time.

CONCLUSION

In conclusion, attempted suicide is the burning issue as it is 10– 25 times more than completed suicide and the most important public health concern.The recent major life events especially relationship problems may have led to majority of suicide attempts.There is lack of counselling services for there problem , more over people are not utilising already existing counselling services either due to lack of awareness or stigma related to consulting mental health personnel.The sale of pesticide should be regulated to keep in check the misuse of the same .

Limitations

The sample size is small in nature .The study is done in a teritary care hospital ,and they may not be the representative of the whole population in general .In this study ,no diagnostic tool of psychiatric diagnosis is used .

Future Direction

As trends in suicide methods may change with time as new method of suicide emerge . So further studies are much needed in this topic .

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