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SUICIDES AND FACTORS ASSOCIATED WITH SUICIDES-A STUDY IN A RURAL SETUP OF PONDICHERRY IN SOUTH INDIA

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ABSTRACT

The aim of this study was to find out the suicide rate and possible factors associated with suicides in a rural area in Pondicherry. Information was collected regarding suicides within the last two years, using a pretested questionnaire by house to house survey in the study area which is a rural set up in the south Indian union territory of Pondicherry. We found that the annual average suicide rate in this village was 110.64/100,000 population which is very high compared to the national average. The majority of suicides were committed by married males (75%). Commonest age of suicide is 15-45 years (46.16%). The reasons found for suicide were family problems leading to stress 9(78.84%) and health problems 4(30.76%). The commonest mode of suicide was by hanging 6(46.15%) and least by burning 3(23.07%). Maximum suicide occurred in the month of November to December 4(36.36%). The findings imply the need for a holistic community based approach to tackle this complex issue of suicide.

Keywords: Pondicherry, Suicides, Factors.

Contribution/ Originality

The paper's primary contribution is finding that the suicide rates in our study area are very high compared to the national average. The key target group for suicide prevention initiatives emerges as married, middle aged males working as a daily wage worker who have the habit of consuming alcohol.

1. INTRODUCTION

In India, suicide is amongst ten leading causes of death of adults and amongst leading three causes of death in young adult population (16-35 years). National Crime Record Bureau reports 125,017 suicidal deaths with rate of 10.8/100,000 population in the year 2008 [1]. The world health organization (WHO) estimates that nearly 900,000 people worldwide die from suicide every year including 170,000 in India. This estimate is higher than the NCRB report of 2008

(135,000 deaths). The NCRB data is open to question owing to its reliance on a system prone to underreporting due to the sensitive nature of suicide and bias related to focusing mainly on suicides related to farmers [2]. In India, the southern states have a suicide rate of greater than 15 per 100,000 [3]. Higher literacy, a better reporting system and higher expectations are the possible explanations for the higher suicide rates in the southern states. At Pondicherry, we often hear of suicide reports from the local village of Koodapakkam located within half a kilo-meter from our teaching college hospital and for which currently no clear cut details are available regarding the suicides and associated factors. So the present study aims to find the suicide prevalence and identify factors associated with suicide in this area which will fill the gap in information regarding these aspects in the Koodapakkam locality of Pondicherry.

2. METHODOLOGY

A cross sectional study was done, with our sample frame including all the houses coming within Koodapakkam village, that comes under the geographic limits of Villianur commune in Pondicherry, South India. House to house survey was undertaken over a period of 14 days by 10 trained interviewers using a pretested questionnaire that had questions pertaining to the suicide, including, method of suicide, location of suicide, any medical help sought, time of suicide and other associated factors along with the socio-demographic information of the victim. The interviewers went house to house and enquired of any suicides in the preceding two years in the family. In case of any suicide occurrence in the family in the last two years, details were collected using the questionnaire from the relatives or close neighbors after giving them an understanding of the purview of our study and obtaining their informed consent. The data collected was later compiled and the percentages were obtained for comparison.

3. RESULTS & DISCUSSION

The area we surveyed had a total population of 5876 with 2992 females and 2884 males. There were a total of 13 suicides. Out of these 8 were males and 5 were females reflecting a greater proportion 61.5% of males among the suicides. The ratio of female to male suicides was 1.6:1. This is a little higher than a previous study which showed a ratio of 1.4:1 [4]. From the fact that male to female ratio of 3 was typically found in suicide studies from developed , high income countries we can say that more proportion of women in our study population are prone to suicide than what is found in developed countries [5].

This total number of suicides amounted to an overall annual average suicide rate of 110.64/ 100,000 population. The national suicide rate in India has increased from 7.9 to 10.3 per 100,000 in the last two decades. There is a wide variation in the suicide rates within the country. Kerala, Karnataka, Andhra Pradesh and Tamil Nadu recorded a suicide rate of > 15 while Punjab, Uttar Pradesh, Bihar and Jammu and Kashmir, showed a suicide rate of < 3. This variable pattern has been stable for the last twenty years [3]. The suicide rate in our study is at least 10 times the national rate and at least 6 times more than what was previously recorded for south Indian states.

This is in agreement with the findings of two large epidemiological verbal autopsy studies in rural Tamil Nadu reveal that the annual suicide rate is six to nine times the official rate [6, 7]. Higher literacy, a better reporting system, lower external aggression, higher socioeconomic status and higher expectations are the possible explanations for the higher suicide rates in the southern states

In our study the suicide rate of 138.69/100,000 among males and 83.55/100,000 among females was found. This is much higher than what was found in another past study in Tamilnadu, south India which revealed an average annual suicide rates for men and women as 71 and 53/100000 per year, respectively [7]. The area surveyed in the present study has similar cultural and geopolitical profile to the area surveyed in this past study. The higher suicide rates among both the genders in our study might be attributed to the fact that our area of study is predominantly composed of people with a lower literacy who are employed as daily wage workers. Also the extensive use of alcohol supported by the proximity with arrack shops might be a factor to explore as contributing reasons. Though our area of study is a rural area the fast depletion of wet lands sacrificed to the needs of construction brought on by rapid and unplanned urbanization may have contributed to this finding.

Commonest age category for suicide was 15-44 years 6(46.16%). The number of suicides among the below 15 age group as well as above 60 age group was negligible in comparison. There was not even one person above 60 among the suicides. This is coherent with the fact that about 71% of suicides in India are by persons below the age of 44 years [8]. Majority of suicides were committed by married people 9 (69.2%). "Divorce, dowry, love affairs, cancellation or the inability to get married (according to the system of arranged marriages in India), illegitimate pregnancy, extra-marital affairs and such conflicts relating to the issue of marriage, play a crucial role, particularly in the suicide of women in India" [3]. Although many might argue that marriage has some protective value against suicide, the plethora of social issues involved in the currently rapidly transforming socio-cultural background is a challenge that could rake up multiple issues leading to stress that might be a trigger to take one's own life. This is supported by our study finding that the main reason for suicide was family problems leading to stress 9(78.84%).[Figure 1]The educational status of most of the suicide victims was 'illiterate' 7 (53.84%) while the least proportion was graduate 1(7.69%).Majority of the suicide victims were employed as daily wage workers 7 (53.84%). [Table 1]

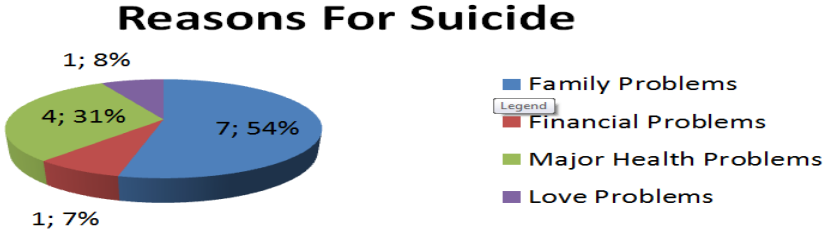

Figure-1. Reasons for committing suicide

Table-1. Demographic Information about the Suicide Victims

Age Distribution				**Educational Status**			
	Males	Females	Total		Males	Females	Total
<15	1	2	3	Illiterate	5	2	7
15-45	4	2	6	Primary	-	-	-
46-60	3	1	4	Higher Sec	2	3	5
>60	-	-	-	Graduate	1	-	1

Occupation				**Marital Status**			
	Males	Females	Total		Males	Females	Total
Daily wage worker	5	3	8	Married	6	3	9
				Unmarried	1	1	2
				Divorced	-	-	-
Unemployed	3	2	5	Single	-	-	-
				Widowed	1	1	2

Among males 6 out of the 8 suicides had history of excess alcohol use. Only one of the victims had a past incident of suicide attempt. The place where the suicide was committed in a majority of cases was inside the house 12 (92.31%).Almost all of the victims had access to multimedia like radio or television 12 (92.31%) at their homes. Looking at the timing of suicide we did not find any specific trend. The distribution of times between early morning, during the day or late night was more or less the same with 5(38.5%) in the early morning, 4(30.76%) during the day and 4 (30.76%) in the night. [Table 2]

Table-2. Location and Method of Committing Suicide

Place of Committing Suicide			
	Males	Females	Total
Inside House	8	4	12
Outside House	0	1	1
METHOD OF SUICIDE			
	Males	Females	
Hanging	3	3	6
Burning	1	2	3
Poisoning	4	0	4

In our study Only 3(23.07%) of the suicide victims had ever visited a psychiatrist or psychologist. This finding gains prominence with the fact that mental disorders have a dominant position in the web of causation of suicide. Many of the studies note that around 90% of those who die by suicide have a mental disorder [9]. One case control study using psychological autopsy technique conducted in Chennai revealed that among those who died by suicide, 88% had a diagnosable mental disorder [10]. The non-seeking of help by those having a psychological problem could stem from the lack of awareness, avenues or the motivation to do so and needs to be addressed specifically.

The commonest mode of suicide in our study was, by hanging 6(46.15%) and least by burning 3(23.07%). This finding is different from findings of other past studies in India and abroad where in self-poisoning was found to be the most common method used for suicide [7]. [Table 2]

4. CONCLUSION

The study area has suicide rate more than ten times higher than the national average of 10.3. The profile of a person most likely to commit suicide emerges as 'A middle aged, married male, occupied as a daily wage worker, who has the habit of consuming alcohol, with family problems leading to stress for which he has never sought any psychiatric help and is likely to commit suicide inside the house, by the method of hanging, during early morning hours.' Now when exploring if it is possible to do something about the suicide situation in our study area in order to create a positive impact it is worth considering The World Health Organization's (WHO's) suicide prevention multisite intervention study on suicidal behaviors (SUPRE-MISS), which has revealed that it is possible to reduce suicide mortality through brief, low-cost intervention in developing countries. Thus there is an urgent need to address the issue of suicides using local resources with the available know how and by adopting community-oriented approaches.

5. LIMITATIONS

The current study looks at the suicide trend in a specific population of around 6000 members and thus may not reflect the suicide trends of the overall state population.

The total number of suicides recorded in our study population was 13 and all our percentages except for the overall suicide rates have been worked out keeping this as our denominator. Readers have to take this into consideration when making their interpretations from the percentages presented.

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