Original Research Article

Retrospective analysis of farmers suicides in Vikarabad district, Telangana

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Abstract

Background: National Crime Records Bureau (NCRB 2007) report on 'Accidental Deaths and Suicides in India 2007, 46 farmers commit suicide every day in India. The suicidal tendency among the farming community owes its origin from Telangana region of Andhra Pradesh and also the Vidharbha region of Maharashtra since the end of 1990. The aims and objectives were to explore the characteristics of people committed suicide, especially the gender differences, modes used, and the reason for causes among the farmer community in Vikarabad District, Telangana State, South India. **Material and Methods:** The present retrospective research based study was done during April 2015- June 2016. A total of 138 cases identified as those with committed suicide were included in the present study, the sociodemographic characteristics such as name, age, gender, residence, date of admission to hospital, date of death and cause of death1were collected. **Results:** In the present study, out of the 138 cases, 98.5% were males, while 1.5% was females and maximum (97.8%) were married and place of death shows 56.5% of cases death was in open fields. The modes of death, maximum number of individuals (45.6%) had committed suicide by hanging. The present study evaluated the prominent reasons for committing suicides includes, maximum number of cases were due to economic status (84%). **Conclusion:** Present study concludes that there are multiple reasons for a farmer to commit suicide. Further large-scale assessments are required to further understand the situation.

Keywords: Farmers, pesticide poisoning, rural South India, suicide

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INTRODUCTION

Globally, farming as an industry is considered a high-risk occupation for suicides. It is estimated that 84% of the suicides occur in Middle and Low-income countries of which India and China alone contribute to half the suicide [1]. As per the National Crime Record Bureau (NCRB), total of 1,31,008 suicides were reported in the country during 2016 [2]. The suicidal tendency among the farming community owes its origin from Telangana region of Andhra Pradesh and also the Vidarbha region of Maharashtra since the end of 1990 (3). Of this, the 5 states of Maharashtra, Tamil Nadu, West Bengal, Karnataka, Madhya Pradesh and Telangana together accounted for more than 50% of the suicides reported in 2016. The rate at which farmers are killing themselves in these states is far higher than suicide rates among non-farmers [4]. The farmers are at a higher risk of suicide than the general population due to various factors such as crop failure, interpersonal problems, financial difficulties and relatively easy access to pesticides as a means of attempting suicides [5]. Studies from South India have shown that poisoning from pesticides (mainly organophosphorus compounds) used in agriculture was the leading cause of suicide in both men and women with hanging being the second most common cause in the most economically productive age group (15-44years) and the second leading cause of death in the 15-19 years age group [6]. Though there have been several studies on suicides regarding causes, risk factors and even on the issue of farmer suicides, a systematic and comprehensive study capturing the data on ground and

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linking it with the existing policy framework is yet to be done [7]. Although farmers' suicide has received a lot of media attention in India, there is scanty research on the topic of suicidal among farmers, and with this study, our aims and objectives were to explore the characteristics of people committed suicide, especially the gender differences, modes used, and the reason for causes among the farmer community in Vikarabad District, Telangana State, South India.

MATERIAL AND METHODS

The present retrospective research based study was done by collecting data from the government hospitals of Vikarabad Dist, Telangana during April 2015- June 2016. A total of 138 cases identified as those died with suicide were included in the present study, the socio-demographic characteristics such as name, age, gender, residence, date of admission to hospital, date of death and cause of death1were collected. This study was approved by institute's ethical committee.

RESULTS

Table 1. Socio-demographic profile of the subjects

	Years	No. of Victim Cases (n=138)	Percentage (%)
Age	<20	1	0.72
	21-30	17	12.3
	31-40	53	38.4
	41-50	32	23.1
	51- 60	19	13.7
	>61	16	11.5
	Total	**138**	**100**
Marital Status	Married	135	97.8
	Unmarried	03	2.2
	Total	**138**	**100**
Gender	Male	136	98.5
	Female	02	1.5
	Total	**138**	**100**
Place of Death	At Home	53	38.4
	Open Fields	78	56.5
	Wells and ponds	07	5.0
	Total	**138**	**100**

In the present study, out of the 138 cases, 98.5% were males, while 1.5% were females. Age wise distribution of the cases showed that maximum number (38.4%) of cases are found in the age group of 31-40 years, while 23.1%, were in the age group 41-50 years (Table 1). In this study maximum cases were married which constitute 97.8%, while 2.2% were unmarried. The place of death was also observed in the present study, which shows 56.5% of cases death was in open fields and 38.4% cases deaths happened at home and small percentage of deaths were observed in wells and ponds (Table 1).

Table 2: Distribution of cases according to Mode of death

Mode of death	No. of cases	Percentage (%)
Hanging	63	45.6
Poisoning	57	41.3
Burns	07	5.0
Drowning	07	5.0
Electrical shock	04	2.8
Total	**138**	

In the present study, the modes of death in individuals were as follows. Out of 138 cases 63 individuals (45.6%) had committed suicide by hanging and 41.3% of individuals had consumed organophosphorus compounds. 5.0% were died by burns and drowning and 2.8% were died due to electric shock (Table 2). None of committers in the present study sample had resorted to violent means such as stabbing of body parts, jumping in front of railway, or oncoming vehicles or using firearms.

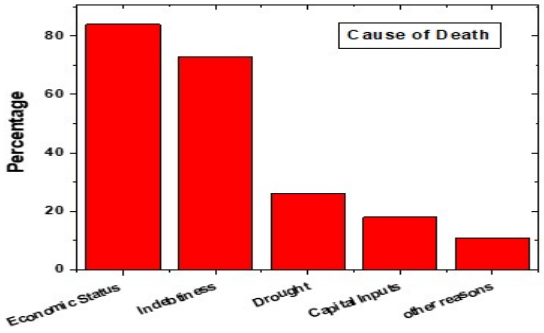

Figure 1: Distribution of cases according to cause of death

In the present study, the prominent reasons for committing suicides includes, maximum number of cases were due to economic status (84%) and 73% of deaths are due to indebt and followed by 26% of cases were due to drought conditions, 18% were due to capital inputs on the crops and 11% of deaths were due to various reasons like Monsoon Failure Climate change, Cash Crops, Minimum Supportive Price, New Economic Policy, and Alcohol (Figure 1).

Table 3: Period of Survival depending on Hospital Admissions

Time period	No of cases	Percentage
Hours		
0-6	75	54.6
6-12	28	20.2
12-24	22	15.9
Days		
1-3	3	2.1
4-7	5	3.6
>7 days	5	3.6
Total	**138**	

Seventy five (54.6%), cases died within 0-6 hrs, 20% of the cases survived up to 12hrs and 15.9% of cases survived up to 24hrs. it was also observed that 3.6% of cases survived more than 7 days from the day of admission in the hospital (Table 3).

DISCUSSION

Suicide as the leading cause of death in framers is due to by not giving adequately high priority to agriculture and that is responsible for most of the problems to farmers. The present study was aimed to explore the characteristics of people committed suicide, especially the socio demographical, modes used, and the reason for causes among the farmer population community in Vikarabad District, Telangana State, South India. We found a majority of the committed to be male and in the age group of 31–40 years and were married. Similar observation was seen in earlier studies were completed suicides are supposed to be more common among men while committed suicide is more common in women (8). Most other Indian studies on suicides as well as suicidal attempts have found an over-representation by those in their third and fourth decade [9]. As per the earlier studies, almost 66% of the suicide victims were married. Our study is also in accordance with earlier researchers which have shown that married individuals among those attempting or committing suicide than unmarried [10]. The National Crime Records Bureau in its annual publication "Accidental Deaths and Suicides in India" in fact gives distribution of suicides by as many as 26 'causes' and most of the framers attempt suicide with the things which are easily and occupationally available. Pesticide poisoning follows Hanging as the most common method of suicide [11]. The mode of death in individuals in the present study was maximally seen by hanging and organophosphorus compounds posioning. Studies from Asia have found poisoning and hanging to be the most commonly used methods [12]. Our study resembled most of the other Indian studies in that we found other modes of committed were by burns and drowning and due to electric shock. Earlier studies find the paradoxical situation of agricultural development that increased the incidences of farmer's suicides in the state. Akkineni Bhavani Prasad [13] in a study of Andhra Pradesh found that farmers suicides in the state are closely related to the traditional policies adopted both by the Central and State Governments in general and that of the policies during the post reforms in particular. Public perception is that indebtedness and financial stressors brought about majorly by unpredictable weather conditions drive the Indian farmer to suicide. The families of the victims have reported money borrowed by the victims from various source of Credits like banks and Moneylenders. In our study, economic status and Indebtedness of farmers is found as the main reason for suicidal committed. Similar observation was studied by Ahlawat [14] investigated the socio-economic reasons of farmers suicides in Harayana. Satish and co-workers [15] in a study of Punjab depicted that the incidence of suicides in Punjab has not been higher than the all India average. The study revealed that the indebtedness is one of the major causes of suicides by farmers. The other factors of suicidal behaviour come hand in hand for taking lives of the farmers is due to various reasons like Monsoon Failure Climate change, Cash Crops, Minimum Supportive Price, New Economic Policy, and Alcohol our observations are in agreement with earlier studies [16]. The major problem of our agriculture is inefficiency. Before liberalisation, our agriculture policies have not tried to make this sector competitive, Actually the driving factor is a 'sense of loss': repeated sense of hopelessness, loss of crops, loss of land, loss of income, loss of community, loss of family farm, loss of a way of life. The place of death of such depressed farmers was also observed in the present study, which shows maximum number of cases death was in open fields and followed by home and small percentage of deaths were observed in

wells and ponds. Present study concludes that there are multiple reasons for a farmer to commit suicide. Our study shows that farmers belonging to this region committed suicide are majority were male, married, belonging to the age group of 31–40 years, and lower socioeconomic status. Hanging and Poisoning were the most common method, accounting for more than half of all attempts. Further large-scale assessments are required to further understand the situation.

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