Socio-psychological Risk Factors associated with Farmers' Suicides in Vidarbha

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Abstract

A study was carried out during 2008-2009 in six suicide hit districts namely Yavatmal, Washim, Buldana, Akola, Amravati and Wardha of Vidarbha region of Maharashtra using exploratory research design. Respondents were the households of selected victims. A total of 200 victims were selected by proportionate method of random sampling. The sample covers 178 villages and 34 tehsils / talukas of six districts. The main objective of this study was to know the different socio-psychological risk factors associated with an individual victim externally within the last five years of suicide incidence. The study revealed that there were three common risk factors which co-existed with over two third of the deceased farmers , and these were increased indebtedness (94.00%), drop in economic status (84.50%) and hopelessness due to crop failure (78.50%) and these factors show the deteriorated economic condition of the deceased farmers. With 71.50 per cent of the victims, 5 to 10 risk factors were associated. The path analysis reveals that the annual income contributed significantly in identified number of risk factors of suicide in terms of maximum negative direct effect and maximum negative indirect effect through other variables while socio-economic status indicated maximum negative total indirect effect on identified risk factors of suicides.

Introduction

During the last one decade, approximately 150,000 farmers are reported to have committed suicides across the country and the relief package offered by the Government has failed to have the desired effect. In the present investigation, an attempt has been made to find out various socio-psychological risk factors associated with suicidal farmers of Vidarbha and to isolate the direct and indirect effects of the individual independent variables on identified number of socio-psychological risk factors of suicides.

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Methodology

The present study was based on exploratory design of social research and was carried out in six suicide hit districts of Vidarbha region of Maharashtra, viz., Yavatmal, Washim, Buldana, Akola, Amravati and Wardha. In this study respondents were the households of selected victims who had committed suicide during 1st January 2006 to 31st December 2006 and were declared as legal victims by a district level committee headed by the Collector of the respective district, for allotting compensation of Rs. 1 lakh and had received the compensation. The time period 1st January to 31st December 2006 was selected purposively as maximum numbers of suicides had occurred during this period in the selected districts of Vidarbha. Before sampling, the researcher had personally contacted the Collector's offices of these selected districts, and obtained the complete list of farmers who had committed suicide during the period. In all, there were 1448 suicide cases in the selected six districts, out of which 874 cases were declared illegal and 574 cases were declared as legal victims. From the list of 574 legal suicide cases, the researcher selected 200 victims by proportionate method of random sampling. The sample covers 178 villages and 34 *tehsils / talukas* of six districts.

As suicide is a sensitive social issue, the investigation was carried out in a very guarded and careful manner, without hurting the sentiments of the family. Data were collected by personal interview method with the help of structured and unstructured interview schedules. Interview was conducted at the residence of the respondent so as to review the overall situation of the family. In addition to personal interview, RRA technique, time line study for historical perspectives, observations, discussions with family members and discussions with key informants (*Police Patil, Sarpanch*, local leaders, and other farmers of the village), reviewing victims' actual records of institutional debts etc. were some important methods used for data collection.

Operationalisation Concepts

Family disputes: Indicates the presence of any dispute/ quarrel between the victim and their family members due to which family relations were restrained ultimately resulting in breakdown.

Family health: Indicates the health status of victim's households.

Family responsibilities fulfilled: The extent to which the individual has fulfilled the various family responsibilities that he holds.

Habits: The existence of any bad habits with suicide farmers were noted like chewing of tobacco, smoking, drug addiction (particularly alcoholism), gambling etc.

Indebtedness: The total outstanding debt amount of institutional and non-institutional credit towards the victim and his household at the time when he/she committed suicide.

Socio-psychological risk factors of suicide: Refers to the aggregation of different socio-psychological risk factors coexisting with an individual victim externally within the last five years of suicide incidence.

Victim's health: Indicates the health status of the suicide farmer.

Results and Discussion

Socio-psychological risk factors of suicides

Distribution of selected victims according to their identified socio psychological risk factors of suicide is shown in Table 1. A critical look at data presented in Table 1 reveals that a total of 22 socio psychological risk factors were associated with the selected deceased farmers, who committed suicide. A number of risks factors can coexist and one particular individual can come across all or none of the risk factors identified by the researcher. In the selected sample, the minimum number of risk factors was one and the maximum was ten. The identified risk factors are presented in a descending order based on frequency of their occurrence in the total sample.

The most common risk factor was 'increased indebtedness' that was found in 94.00 per cent of the deceased farmers. From all these indebted, 7.5 per cent were harassed for repayment of loan and in 32.50 per cent of the cases the creditor insisted on immediate repayment. Increased indebtedness was the main cause for increasing anxiety among a majority of the deceased farmers.

This was followed by 'drop in economic status' which was noticed in 84.50 per cent of the deceased farmers. Of this, in 21 per cent of the cases, distress sale of assets (land, animals etc.) was noticed for fulfilling urgent family needs and in a few cases (2.00%) failure of tube well was reported by households.

In more than three fourth of the cases (78.50%), crop failure was mentioned. The households mentioned that the monsoon vagaries were the main reason for crop failure. Crop failure can lead to economic downfall and make it difficult to repay the existing loans of institutional and non-institutional sources. This also increases the need for additional credit. Crop failure leading to a fall in the

economic position is quite natural, but the causal links can also be the other way round. Due to the fall in the economic position or heavy indebtedness, households are not able to take additional loans for investing in crop cultivation which can lead to a reduction in yield or total crop failure.

Table 1. Distribution of Victims according to their identified Socio-Psycho Risk Factors of Suicides

S.No.	Risk factors	Number(200)	Percentage
1	Increased indebtedness	188	94.00
2	Drop in economic status	169	84.50
3	Hopelessness due to crop failure	157	78.50
4	Introvert ness	142	71.00
5	Alcohol use disorder	84	42.00
6	Change in behaviour before incident due to stressful life events	75	37.50
7	Effect of suicides in the adjoining villages	68	34.00
8	Family members chronically ill /handicapped	50	25.00
9	Daughter / sister of marriageable age	44	22.00
10	Deceased having health problem	38	19.00
11	Disputes/quarrel with the family members	32	16.00
12	Family history of suicide / suicide attempt	11	5.50
13	Disgraceful events	08	4.00
14	Death of family member before incident	08	4.00
15	Given verbal clues of suicide	04	2.00
16	Depressed due to land / domestic disputes in court	03	1.50
17	Disputes with the neighbours or others	03	1.50
18	Dispute with moneylender	02	1.00
19	Depressed over unemployment after education	02	1.00
20	Decreased self esteem events	02	1.00
21	No children	02	1.00
22	Suicide by close friend	02	1.00
	Average number of risk factors	5.4	
	Minimum number of risk factors	01	
	Maximum number of risk factors	10	

(The risk factors are not mutually exclusive, and hence, will not add up to 100 per cent.)

Introvert personality was identified in 71 per cent deceased farmers, as they did not discuss or share their problems with other family members, leading to more frustration. In a sizable number of cases (42%), alcohol use disorder was associated. This might be to overcome the inability to face the harsh realities of life. Change in the individual's behaviour was identified in more than one third (37.5%) of the cases due to stressful life events. These indicate that such individuals need some psychosocial help or treatment on depression or counseling.

Effect of suicides in the adjoining villages was identified as an additional risk factor in 34 per cent of the cases. This was because an individual who is facing a similar socio economic problem can relate to the earlier incident. This could be an imitation (copying) effect. In one-fourth of the deceased farmers (25%) their family members suffered from ill health. This added to the frustration in those who were not able to fulfill the responsibility of taking care of an ailing parent / spouse / child. More expenses on health also lowered the economic position.

Daughter/ sister of marriageable age was found as a reason among 22 per cent of the deceased farmers. A socially important role of a brother/father is to get one's sister/ daughter married. Communities have norms in terms of age and expenditure. A farmer is largely dependent on a good return from his produce to fulfill this obligation. Crop failures, greater credit burden or a fall in his economic position can come in his way of fulfilling this obligation.

The personal health problem of the deceased was identified in 19 per cent of the cases. Of these, 26.32 per cent (5 cases) were those with some mental health problems. Illness gets aggravated due to poor economic condition because it makes medical care seeking difficult. Similarly, ill health can lead to a loan from non-institutional agencies to meet medical expenses and also reduces the ability to work, aggravating the economic condition. In 32 (16%) of the victims, disputes/ quarrel was noticed with their family members due to domestic reasons. Of this, among 16 victims (50%) alcoholic tendency was noticed as the main reason for quarrel or disputes.

Family history of suicide or suicide attempt was identified as one of the additional risk factors in 5.5 per cent of the cases. This could be indicative of genetic factor, followed by disgraceful events which happened in 4 per cent of the cases which created a loss of face in the society. Death of a family member before the incident was identified in 4 per cent of the cases. A near one's death could have been because of not receiving appropriate health care. Inability to

provide care is largely because of the poor economic conditions rooted in the largest agrarian crisis, while 2 per cent of the victims had given verbal clues of suicide before the incidence of suicide. It showed the self-harming behavior of the victims due to poor economic conditions.

A meager proportion of (1.5%) the victims were depressed due to land / domestic disputes in court, 1.5 per cent cases had disputes with the neighbours, 1 per cent each had disputes with moneylenders, were depressed over unemployment after education and suicide by a close friend. In addition to this, among 1 per cent of the victims, their self-esteem decreased due to disgraceful acts by the family members and 1 per cent victims had no children due to infertility in spouse.

The above findings indicate that the risk factors can co-exist and can be interrelated and that they feed into and aggravate each other. They are not mutually exclusive, and hence, will be more than 100 per cent. In fact, the average number of risk factors was 5.4.

Thus, the distribution of identified risk factors associated with an individual deceased farmer leads to conclude that over two thirds co-existed with three common risk factors. These risk factors were increased indebtedness (94 %), drop in economic status (84.5%) and hopelessness due to crop failure (78.5%) and show the deteriorated economic condition of the deceased farmers.

Number of risk factors and suicide cases

Distribution of selected victims according to identified number of risk factors associated with their suicide is shown in Table 2. It is apparent from the data in Table 2 that in a maximum percentage of the deceased farmers (43 %) five to six risk factors were associated, while one to four and seven to ten risk factors were associated in 28.5 per cent in each of the cases.

Table 2. Distribution of Victims according to Identified Number of Socio-Psycho Risk Factors of Suicides

S.No.	Number of risk factors	Number	Percentage
1	1-4	57	28.50
2	5-6	86	43.00
3	7-10	57	28.50
	Total	200	100.00

Mean = 5.47

Thus it is concluded that over two third (71.5 %) of the cases were associated with 5 to 10 risk factors. This finding is in line with the findings of Madan (1965) and Mishra (2006) that many factors combine to cause a particular individual to divert his aggression upon himself in the form of suicide.

Direct and Indirect Effects of Independent Variables on Identified Number of Socio-Psycho Risk Factors

For finding out the influence of the selected independent variables on the identified number of risk factors of suicide of the victims, both direct and indirect and also through other variables, the method of path analysis was used. The results are depicted in Table 3.

1. Direct Effects

The path coefficients reported in Table 3 revealed that the annual income had negative and maximum direct effect (-0.4347) on the identified number of risk factors of suicide of victims, followed by irrigation facilities (-0.1676).

The socio-economics status (0.3103) exerted maximum positive direct effect on identified number of risk factors of suicides of victims, followed by victim's habits (0.2791), victim's health (0.2774), family health (0.2264), extent of family responsibility fulfilled (0.2227), family disputes (0.2207) and indebtedness (0.1086).

Thus it could be inferred that victims with lower income and low or no irrigation facilities on their farm possessed higher risk factors of suicides directly.

It could also be inferred that victims were more aware about their socio-economic status in society but due to agrarian crisis, could not maintain the status in society and for reducing tension they took to alcohol leading to health problems, reducing working condition in farm or farm wages. This leads again to reduction in income and increasing debts for fulfilling essential family needs and ultimately aggravates the family members' health problem and family responsibilities. Inability to solve the problems again have causal links with increasing family disputes, directly.

Similarly data clearly indicate that lower annual income (Rank I) and increasing socio-economic status (Rank II) have exerted maximum direct effect on identified number of risk factors of suicide. This suggests that the deceased farmers were aware about their socio-economic status in the society, but in the present agrarian crisis situation, due to lowering of the annual income they were unable to maintain socio-economic status.

In a nutshell, it is concluded that among the 19 independent variables, annual income had exerted negative significant effect with maximum direct effect on identified number of risk factors of suicide with victims.

2. Total Indirect Effects

It can be noted from Table 3 that the variable socio-economic status (-0.3700) exerted negative and maximum total indirect effect on identified number of risk factors of suicides with victims, followed by agriculture infrastructure (-0.1642) and land holding (-0.1264), in descending order of magnitude. The indirect effect of annual income (0.2321) and education (0.1042) was also more but positive.

Table 3. Direct and Indirect Effects of Independent Variables on Identified Number of Socio-Psycho Risk Factors of Suicides

S. No.	Correlates	Coefficient of correlation 'r'	Path coefficients				
			Direct effect	Rank order	Total indirect effect	Rank order	Maximum indirect effect through other variable
1	Age (X_1)	-0.0116	-0.0799	10	0.0683	8	-0.0366 (X_9)
2	Education (X_2)	0.0443	-0.0599	12	**0.1042**	5	0.1362 (X_{10})
3	Caste (X_3)	0.0781	0.0565	13	0.0216	15	0.0791(X_{10})
4	Family size (X_4)	-0.0500	0.0425	15	-0.0925	6	-0.0976 (X_9)
5	Family type (X_5)	-0.0663	-0.0170	17	-0.0493	11	**-0.1095 (X_9)**
6	Farming experience (X_6)	-0.0052	0.0401	16	-0.0453	13	-0.0713 (X_1)
7	Land holding (X_7)	-0.1108	0.0156	18	-0.1264	4	**-0.2444 (X_9)**
8	Subsidiary occupation (X_8)	0.0630	-0.0146	19	0.0776	7	**-0.1484 (X_9)**
9	Annual income (X_9)	**-0.2026****	**-0.4347**	**1**	0.2321	**2**	0.2095 (X_{10})
10	Socio-economic status (X_{10})	-0.0597	0.3103	**2**	**-0.3700**	**1**	**-0.2935 (X_2)**
11	Type of land (X_{11})	-0.0659	-0.0764	11	0.0105	18	-0.0947 (X_9)
12	Irrigation facilities (X_{12})	**-0.1467***	-0.1676	8	0.0209	16	0.1485 (X_{10})
13	Agriculture infrastructure (X_{13})	-0.1196	0.0446	14	-0.1642	3	**-0.1743 (X_9)**
14	Indebtedness (X_{14})	0.0619	0.1086	9	-0.0467	12	**-0.1366 (X_9)**
15	Extent of family responsibility fulfilled (X_{15})	**0.2238****	0.2227	6	0.0011	19	0.0531 (X_{18})
16	Victim's habits (X_{16})	**0.2596****	0.2791	3	-0.0195	17	-0.0368(X_{10})
17	Victim's health (X_{17})	**0.2340****	0.2774	4	-0.0434	14	-0.0190(X_9)
18	Family health (X_{18})	**0.2869****	0.2264	5	0.0605	9	0.0522 (X_{15})
19	Family disputes (X_{19})	**0.1630***	0.2207	7	-0.0577	10	-0.0454 (X_{15})

** Significant at 0.01 level of probability *Significant at 0.05 level of probability

Thus, lower socio-economic status had exerted maximum total indirect effect on increasing risk factors of suicide with victims. In this study, socio-economic status was a multidimensional construct variable having eight important indicators namely, occupation, land holding, family education, annual income, socio-political participation, household, material possession and other attributes like outstanding loan and repayment behaviour. Low level of the above indicators of socio-economic status exerted maximum total indirect effect on increasing the risk factors of suicide with victims.

3. Maximum Indirect Effects through other Variables

Out of 19 variables under study, socio-economic status, land holding, agriculture infrastructure, subsidiary occupation and indebtedness, exerted maximum indirect effect on identified number of risk factors of suicide through negative annual income. Annual income, irrigation facilities, education of victims exerted maximum indirect effect on identified number of risk factors of suicide through positive socio-economic status of the victims.

Thus, annual income has not only produced the highest direct effect but also served as a vehicle for production of indirect effect through other variables for increasing risk factors of suicide with the victims and emerged as an important determinant for increasing risk factors of suicide among the victims.

Conclusion and Implications

The distribution of identified risk factors associated with an individual deceased farmer leads to conclude that over two third of respondents co-existed with three common risk factors namely increased indebtedness (94.00%), drop in economic status (84.50%) and hopelessness due to crop failure (78.50%) and these risk factors show the deteriorated economic condition of the deceased farmers. Over two third (71.50 %) of the cases were associated with 5 to 10 risk factors. The path analysis reveals that the annual income contributed significantly in identified number of risk factors of suicide in terms of maximum negative direct effect and maximum negative indirect effect through other variables and socio-economic status indicated maximum negative total indirect effect on identified risk factors of suicides.

This study suggests that the situation can be improved, if economic empowerment is ensured by creating subsidiary occupations. While going through the results of this research study, it emerged that majority of the victims had low income level. With very low and low socio-economic status level, near about cent percent were defaulters and indebted. The income that they obtained from

all sources, was not even enough to meet the essential expenditure of the households; hence these farmers were in severe distress.

The path analysis showed that the present spate of suicides in Vidarbha region is due to economic crisis, i.e. due to low income level of the deceased farmers. For improving this situation, policy makers need to think critically about the change in the economic condition of the farmers of Vidarbha. Some measures are suggested for the same.

Short-term measures:

1. Declare remunerative prices for all crops of farmers in consonance with the cost of cultivation.
2. In the selected six districts of Vidarbha, 85.00 per cent of the area is rainfed, hence farming is most vulnerable to the vagaries of nature. Hence it is suggested to provide crop insurance facilities with low premium affordable by the farmers for all crops and to all farmers.
3. During the field survey, it was noted that due to erratic rainfall during 2004-05, most of the crops failed and during 2005-06 due to heavy rains in July-August, most of the crops in low lying land around rivers were flooded with water. Some households also reported about huge losses to victims' households on account of wild animals In order to avoid this condition, the Government may extend immediate financial help to affected farmers in natural calamities like flood, drought and in losses by wild animals

Long term measures:

1. In order to uplift the farmers socially and economically, as a long-term measure, more land may be brought under irrigation by completing ongoing irrigation projects and planning new irrigation projects, increasing the network of canals, tanks; wells and micro irrigation systems.
2. Inability to fulfill responsibilities like marriages of daughters/ sisters and their health treatment or of other family members was observed in a sizable group of the victims. Thus, it implies that motivating the farmers through grass root Government and social functionaries for taking benefit of Mass Marriage Scheme of Government will definitely help to curtail huge expenses on marriages and other related social functions. NGO's can play a very crucial role in this regard.
3. Provide good quality low cost health care at Govt. hospitals to small and marginal farmers.

4. A sizable, 42 per cent of the victims were observed under alcohol addiction. A mass awareness camp should be organized by NGOs and social functionaries to create awareness about the harmful effects of alcohol and gambling. Involvement of women and Gram Panchayat members is crucial in this movement. Preventing vendors and closing down the liquor shops by passing of a resolution by more than 50 per cent of the women in the community as a lawful action, may help in a big way in refraining people from alcohol consumption.

5. Disputes/ quarrels were observed among 16 per cent of the victims with their family members particularly with spouse, due to domestic reasons and alcoholic tendency of the victims. Hence, socio-psycho counseling of such disputed families is essential, through forming a special body of local leaders and eminent persons at the village level for solving family problems.

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