

Socio-psycho Risk Factors Responsible for Farmers' Suicide in Western Vidarbha and its Determinants

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ABSTRACT

The present investigation was carried out in distress prone Akola and Buldana districts of Western Vidarbha region of Maharashtra with exploratory design of social research. The overall major findings indicate that indebtedness, hopelessness due to crop failure, and drop in economic status are, by and large, identified as the core reasons of suicide in Vidarbha region of Maharashtra. Step down regression analysis revealed that low socio-economic status of the deceased farmers was the major significant determinant or 'stressor' or 'trigger', for aggregation of identified number of risk factors of suicide among the victims. For improving this situation, policy makers have to think critically about the change in socio-economic condition of the farmers of Vidarbha.

Key words: *Socio-psycho risk factors; Suicide; Trigger; Indebtedness; Hopelessness;*

Suicide is a complex social and psychological phenomenon. Psychologically, the suicide prone person experiences mental distress because of certain crisis situation. If immediate help is made available to such a person, his suicide could perhaps be avoided. Poverty, unemployment, loneliness, social and economic insecurity and conflicts in interpersonal relations are the important social factors contributing to suicide. To solve these various problems, appropriate policies and programmes are to be evolved in the country (Phal, 2000). Durkheim (2002) pointed out that the neurobiological and socio-economic dimensions of risk factors are responsible for committing suicide, but the intersection of these two sets, where the relative risk of committing suicide is higher.

Recently farmers' suicides have been receiving attention of public, media, researchers and policy makers' in Vidarbha region of Maharashtra. According to findings of various studies/experts, non remunerative prices for crops, indebtedness and crop failures due to monsoon vagaries are, by and large, identified as the core reasons of suicide in Vidarbha region of Maharashtra [Dandekar et al (2005), Mishra (2006) and Narayanamoorthy (2006)]. But, according to Madan (1980) and Singh (2005), the causes of suicide

are complex, many factors combine to cause one particular individual (and not another) to divert his aggression upon himself in the form of suicide. This type of possibilities may not be avoided in Vidarbha region. There may be various reasons behind their act of suicide. Although it is a difficult task to find correct reasons behind act of each victim, but according to Kaplan et al. (1994) the suicidal person sends out signal of distress. Hence, it has been an important question among thinkers/ researchers to find the appropriate signals/stressors of distress among each individual victim. The probable information about these signals/stressors may be found in secondary material available with each victim's households. Hence, the study pertaining to causes of farmers' suicide was taken by conducting detailed field survey particularly in distress prone Akola and Buldana districts of Western Vidarbha in Maharashtra with following objectives.

- 1) To identify the risk factors of suicide which compelled the farmers to commit suicide in Western Vidarbha Region
- 2) To ascertain the important contributory variables which influenced the identified risk factors of suicide with the victims.

METHODOLOGY

The present investigation was carried out in distress prone Akola and Buldana districts of Western Vidarbha region of Maharashtra with exploratory design of social research. In this study respondents were the households of selected victims who committed suicide during 1st January 2008 to 31st December 2008 and had declared as legal victims by district level committee headed by Collector of the respective district, for allotting compensation of Rs. 1 lakh and had received Rs. 1 lakh compensation. In all, there were 361 total suicide cases in selected two districts during 2008, out of which 242 cases were declared as illegal and 119 cases were declared as legal victims. From the list of 119 legal suicide cases, researcher had selected 40 victims by proportionate random sampling method. It covers 40 villages and 9 *tahsils* of two districts. Data were collected by personal interview method with the help of structured interview schedule.

In present study of farmers' suicide it was assumed that those who have committed suicide in Vidarbha region, their social and psychological web were not sustainable. They may have many social and psychological problems. These problems may have created an adverse impact on their well being and impaired the quality of life. 'Socio-psycho risk factors' is the dependent variable in present research endeavour. Operationally, socio-psycho risk factors of suicide refers the aggregation of different socio-psychological risk factors / circumstances coexisted with an individual victim externally during last five years of incidence. For identification of different socio-psychological risk factors with an individual victim, a comprehensive schedule was developed with the help of review of literature, resource material available related to assessment of suicide risk (*Jacob 2006*), experts in the fields of Extension Education and professionals in the field of Psychiatry. After development of schedule, responses were collected from the family members with detail discussion on time line historical perspectives of the victim, neighbours, key informants, by making group discussions with other farmers of that village and by self observations made by researcher and identified different socio-psychological risk factors that are associated with an individual victim externally. For every

identified risk factor, one score was allotted. Thus, according to total risk factors identified with each victim that indicate the total socio-psycho risk factor score of victim.

RESULTS AND DISCUSSION

Socio-psycho Risk Factors : In this study socio-psycho risk factors refers the aggregation of different socio-psychological risk factors coexisted with an individual respondent externally. The same has been studied and the data have been presented in Table 1.

A critical outlook of data presented in Table 1 evident that, total 18 socio psychological risk factors were associated with the selected deceased farmers, who committed suicide. A number of risk factors can coexist and one particular individual can come across all or none of the risk factors identified by the researcher. In selected victims, the minimum number of risk factors

Table 1. Distribution of the deceased farmers according to their identified Socio-psycho Risk Factors

S. No.	Risk factors	Victims	
		No.	%
1	Indebtedness.	38	95.00
2	Hopelessness due to crops failure	33	82.50
3	Drop in economic status	32	80.00
4	Introvertness	24	60.00
5	Alcohol use disorder	18	45.00
6	Low Social Support	17	42.50
7	Having self health problem	13	32.50
8	Change in behaviour	11	27.50
9	Family members chronically ill / handicapped	10	25.00
10	Family history of suicide	9	22.50
11	Daughter / sister of marriageable age	7	17.50
12	Disputes/quarrel with the family members	6	15.00
13	Given verbal clues of suicide	5	12.50
14	Depressed due to divorced/disputed, daughter/sister in family	4	10.00
15	Decreased self esteem events	2	5.00
16	Depressed due to no children	1	2.50
17	Depressed due to land disputes in court	1	2.50
18	Death of family member before incident	1	2.50
	Average number of risk factors	5.8	580.0
	Minimum number of risk factors	02	
	Maximum number of risk factors	10	

was two and the maximum 10. The identified risk factors have been presented in a descending order based on frequency of their occurrence in deceased farmer.

The most common risk factor was indebtedness found in 94.00 per cent deceased farmers. In more than three fourth of the cases (82.50%) repeated crop failure were mentioned as a reason of suicide by the households. Mostly the households mentioned that the monsoon vagaries were the main reason for crop failures. Crop failure can lead to economic downfall and make it difficult to repay the existing loans. This was followed by drop in economic position were noticed in 80.00 per cent deceased farmers. Introvert personality was identified in 60.00 per cent deceased farmers as they did not discuss or share their problems with other family members, that leads to adds more frustration.

In sizable group of cases (45.00%) alcohol use disorder were associated. Low social support was noticed with 42.50 per cent victims. The personal health problem of the deceased was identified in 32.50 per cent of the cases. Change in the individuals' behaviour was identified in more than one fourth (27.50%) cases due to stressful life events.

In one-fourth deceased farmers (25.00%) family member, were suffered from ill health. It adds frustration in those who were not able to fulfill the responsibility of taking care for an ailing parent / spouse / child. More expenses on ill health also lower the economic position. Family history of suicide was identified in 22.50 per cent of the cases. This could be indicative of genetic factor. Daughter/ sister of marriageable age were found as a risk factor in 17.50 per cent victims. In 15.00 per cent victims disputes/ quarrel was noticed

Table 2. Step down regression analysis showing relative contribution of independent variables in influencing the identified number of Socio-psycho Risk Factors with the Victims

Mdl. No	Independent variables												R
	1	2	3	4	5	6	7	8	9	10	11	12	
1	0.007 (0.022)	-0.003 (0.081)	-1.005 (0.727)	-0.044 (0.169)	0.035 (0.351)	-0.562 (0.382)	0.410 (0.372)	0.354 (0.694)	-1.191* (0.532)	0.000 (0.000)	-0.000 (0.000)	0.000 (0.000)	0.5577*
2	0.008 (0.021)	-	-1.006 (0.714)	-0.044 (0.166)	0.034 (0.344)	-0.562 (0.375)	0.409 (0.363)	0.357 (0.676)	-1.196* (0.508)	0.000 (0.000)	-0.000 (0.000)	0.000 (0.000)	0.5577*
3	0.008 (0.020)	-	-0.996 (0.695)	-0.041 (0.161)	-	-0.570 (0.359)	0.400 (0.345)	0.335 (0.629)	-1.182* (0.481)	0.000 (0.000)	-0.000 (0.000)	0.000 (0.000)	0.5575*
4	0.007 (0.020)	-	-1.093 (0.572)	-	-	-0.561 (0.351)	0.401 (0.340)	0.283 (0.586)	-1.123* (0.415)	0.000 (0.000)	-0.000 (0.000)	0.000 (0.000)	0.5565*
5	-	-	-1.081 (0.563)	-	-	-0.561 (0.346)	0.431 (0.324)	0.255 (0.572)	-1.129* (0.408)	0.000 (0.000)	-0.000 (0.000)	0.000 (0.000)	0.5547*
6	-	-	-1.136 (0.542)	-	-	-0.515 (0.327)	0.470 (0.308)	-	-1.063* (0.375)	0.000 (0.000)	-0.000 (0.000)	0.000 (0.000)	0.5518*
7	-	-	-1.147 (0.536)	-	-	-0.481 (0.317)	0.443 (0.301)	-	-1.086* (0.369)	0.000 (0.000)	-	0.000 (0.000)	0.5477*
8	-	-	-1.043	-	-	-0.420	0.474	-	-1.056* (0.345)	0.000 (0.00)	-	-	0.5277*
9	-	-	-1.089 (0.537)	-	-	-	0.471 (0.305)	-	-1.249* (0.345)	0.00 (0.00)	-	-	0.5030*
10	-	-	-1.045 (0.547)	-	-	-	-	-	-1.050* (0.326)	0.00 (0.00)	-	-	0.4692*
11	-	-	-1.131 (0.542)	-	-	-	-	-	-0.770* (0.196)	-	-	-	0.4521*

*Significant at 0.05 level of probability

Fig. in parenthesis indicates the standard error

Independent variables

- 1. Age 2. Education 3. Family Type 4. Family size 5. Subsidiary occupation 6. Land holding
- 7. Type of land 8. Irrigation facilities 9. SE status 10. Annual income 11. Income liability gap 12. Indebtedness

with their family members due to domestic reasons. In addition to the above there are some other risk factors were identified with the victims like given verbal clues of suicide due to unbearable stress (12.50%), depressed due to divorced/disputed, daughter/sister in family (10.00%), decreased self esteem events (5.00%), depressed due to no children (2.50%), depressed due to land disputes in court (2.50%) and death of family member before incident (2.50%). The above findings are in conformity with the findings of Mishra (2006), who observed that average number of risk factors associated with victims was 4.8 and the most common risk factors were, indebtedness (86.00%), followed by economic status deteriorated (73.90%) and deceased not shared the problems with other family members (55.00%).

Step down regression analysis :By using step down analysis one can find out the variables that are major determinants for aggregation of identified number of risk factors of suicide among the victims. By eliminating one variable with lowest 't' value at every step the step down multiple regression analysis was carried out and the results are presented in Table 2. Before exploring the step down regression analysis of independent variables with risk factors of suicide we see the important findings about independent variables. The salient findings about independent variables revealed that majority victims' holds rainfed and moderately deep type of land ranges from 0.4 to 2.80 ha; majority were male and married, having nuclear type of families (57.50%) with medium (4 to 6) to large (7to 9) family size. Agriculture and wages earning were the main livelihood source of majority of the victim. Average productivity in almost all crops was found low hence their average annual income is low (Rs.30, 500). In 70.00 per cent victims their annual income was not enough to fulfill the minimum livelihood expenditure hence there exist an income liability gap. Nearly cent percent (97.50%) victim have very low and low level of socio-economic status. Majority (95.00%) victims were indebted.

The results of step down regression analysis in Table 2 reveal that when all the 12 variables were fitted (Model-I) in the multiple regression equation, the significant Coefficient of Multiple Determination (R²) (0.5577) is observed. This shows that these 12 variables

were responsible to explain the variations in identified number of risk factors to the extent of 55.77 per cent. Among these variables, the regression coefficient of socio-economic status was found negative and significant with identified number of risk factors of suicide. It indicates that lowering of socio-economic status have contributed significantly towards increasing the risk factors of suicide with the victims. The contribution of other variables was not found significant with identified number of risk factors of suicide.

From model - 2 to model -10, total 9 variables were deleted as per their lowest 't' value. Finally in last model 11, after deleting annual income, the multiple regression equation was setup with two variables namely, socio-economic status (-0.770) and family type (-1.131). The significant Coefficient of Multiple Determination (R²) (0.4521) was observed. This shows that these two variables are responsible to explain the variation in identified number of risk factors to the extent of 45.21 per cent. Thus, it could be explicitly said that among 12 variables, lowering socio-economic status and lowering joint type of families were the major determinants or 'stressors' or 'triggers', for aggregation of identified number of risk factors of suicide among the victims, hence there is a need to take care of these triggers for avoiding suicides in future by applying various planning and developmental measures in agriculture and with the families of suicide farmers.

CONCLUSION

The present study concluded that amongst two third deceased farmer three common risk factors were co-existed i.e. indebtedness (95.00%), hopelessness due to crop failure (82.50%) and drop in economic status (80.00%) and these risk factors show the deteriorated economic condition of the deceased farmers that leads to frustration and finally suicide. These risk factors are interrelated and they feed into each other and aggravate each other. Step down regression analysis revealed that lowering socio-economic status and lowering joint type of families were the major determinants or 'stressors' or 'triggers', for aggregation of identified number of risk factors of suicide among the victims. For improving this situation, policy makers have to think critically about the change in socio-economic condition

of the farmers of Vidarbha by declaring remunerative prices for all crops of farmers in consonance with the cost of cultivation. Presently, cost of cultivation has increased by manifolds due to steep rise in the cost of inputs, but prices of farm produce were not rise comparatively. During this field survey, some of the households mentioned that some time they did not get even the cost of cultivation from farm produce. Hence it implies that remunerative prices of farm produce should be declared and paid in consonance with the cost of cultivation. Presently, most of the farmers depend on external input, that needs initial financial provision with farmers, but mostly the farmers of dry land region cannot save the money from their small and marginal holding. Hence for every venture, they have to borrow money. Hence, this study implies measure for reducing the dependency of farmers on external inputs. This can be possible through extensive efforts of extension functionaries by providing information on important low cost-no cost technologies of farm cultivation to farmers like use of own seeds, seed treatment, use of bio-fertilizers, sowing across slope, different land care techniques, etc. This will definitely help farmers to reducing initial cost of inputs to some extent. In selected

districts of Vidarbha, 85.00 per cent area is rainfed, hence farming is most vulnerable to the vagaries of nature. So the farmers take only kharif crops. If the crops fail, the farmers become incapable of paying back the loan and when crops fail in two or more consecutive seasons, farmers invariably find themselves in a debt trap. Hence it is suggested to provide crop insurance facilities with low premium affordable by the farmers for all crops and to all farmers, and insurance unit should be reduced to Village Panchayat for at least for major crops. In addition to the above mentioned short term measures, the policy makers should have to apply following long term measures for uplifting the farmers socially and economically like bring more land under irrigation by completing ongoing irrigation projects and plan about the new irrigation projects, increasing network of canals, tanks; wells and micro irrigation systems. This will definitely help in increasing crop production, productivity, and change in cropping pattern, cropping intensity, and increase in the allied occupations in study area. These things are necessary not only for uphold the farmers socio-economically but also for sustaining them socio-psychologically.

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