



# A Study Of Suicidal Ideation And Mental Health Among Farmers

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## Abstract:

The present study was conducted to find the relationship between mental health and suicidal ideation among Farmers. The sample of this research was of 375 male farmers of western Haryana's four districts (Hisar, Bhiwani, Fatehabad, Sirsa), with the age range of 25 to 40 years. They were further divided in three different groups as Landless farmers (125), farmers with 1-9-acre land (125) and farmers with more than 9-acre land (125). Data was collected using purposive sampling. General Health questionnaire (GHQ-28) developed by (Goldberg and Hillier, 1979) and Adult Suicidal Ideation Questionnaire (ASIQ) by (Reynolds, 1991) was used for the purpose of data collection. In statistical tools Pearson correlation method and One-Way ANOVA has been applied. The findings of the study reveal significant group differences on different components of mental health with suicidal ideation.

Keywords: Suicidal Ideation, Mental health, Farmers

## Introduction

To be healthy is to reach out past the correct working of the physique. It implies the physique and the psyche are operated effectively and agreeably. Human conduct is controlled through mutually bodily and psychological variables. Mental wellness stands as a fundamental element that adds towards the maintenance of bodily well-being just equally societal viability. Throughout an inordinate length of time, a proceeding with an affair of discussion has been close by the topic of in what manner to characterize mental wellness. The articulation "Mental Health" comprises two aspects "Mental" and "Health". Mental wellness, in this manner, may allude to a healthy psychological state or a condition of mental prosperity or freedom as of mental maladies. Suicide among working individuals, for example, ranchers, is the result of a mindboggling association between labourer vulnerabilities (e.g., emotional wellness issues), unpleasantness in work settings, and living situations (community and additionally natural aggravation) (WHO, 2006). In a point-by-point description, the World Health Organization referred to cultivating as a standout amongst the extremely distressing jobs, and employment worries as an incessant forerunner to psychological wellness issues that thus speaks to a noteworthy hazard factor for suicide. This one is said that a sound physique decides a healthy personality and a healthy personality exists in a healthy body. Varied adverse conditions and long-term mental health problems consequences for the manifestation of suicidal thoughts in farmers. Suicidal thoughts among farmers are usually associated with mental illness (Mc Shane & Quirk, 2014, Page & Fragar, 2002). The work-home condition of cultivating a family is one of a kind and accordingly justified further examination because of the potential connection between the working atmosphere and the poor emotional well-being status of cultivating families. Increasing the financial restrictions and stressors that are often a part of farmers' life may be placing the farmer and farming family living in a danger (Gray & Lawrence, 1996; King, Lane, Mac Dougall & Greenhill, 2009). The outer environments, the structure of the family, the land economy, and the other irregularities which are related to farming have increased in past years, due to the changes in farming conditions and techniques. These irregularities and changes work as stressors for farmers. These stressors could be dangerous for the mental health of farmers. Due to these stressors, mental and psychological problems may be developed in the farmers. Studies found that farmers are more prone to depression in comparison to the normal population (Torske, et al., 2016).

## Methodology

### Sample and Population

The sample of this research was 375 male farmers of western Haryana's four districts (Hisar, Bhiwani, Fatehabad, and Sirsa), with an age range of 25 to 40 years. In this research data collection was through purposive sampling. A sample of 375 male farmers was further categorized into three groups. Such as 125 landless farmers but farming on leasehold land, 125 farmers who have 1 to 9-acre land, and 125 farmers who have 10 acres and above land.

125 Farmers	125 Farmers	125 Farmers
Landless (farming on leasehold land)	1 to 9-acre Land	10 acres and above

### Measures

1. Adult Suicidal Ideation Questionnaire - (Reynolds, 1991)
2. General Health Questionnaire - 28 (Goldberg & Hillier, 1979)

#### Adult Suicidal Ideation Questionnaire (ASIQ)

The ASIQ (Adult Suicidal Ideation Questionnaire) was developed by Reynolds, in 1991. It contained 25 items, a revised form of the 30-item SIQ. Whereas the SIQ was aimed to measure suicidal ideation in adolescents, the Adult Suicidal Ideation Questionnaire is aimed to assess it in adults. The reliability of coefficient alpha is excellent at 0.97 and test-retest reliability is .86.

#### General Health Questionnaire-28 (GHQ-28)

The GHQ construct by Goldberg and Hiller (1979) comprises 28 items assessing psychological symptoms. It consists of 4 subscales: (1) Somatization (2) anxiety/ Insomnia (3) Social dysfunction and (4) Severe Depression, there are 7 items in each subscale. This is a 4-point scale, according to how they have better experienced each GHQ item. The GHQ isn't planned to recognize indications that happen with explicit mental verdicts, for example, crazy issues, but rather, give a proportion of general mental well-being or health. To assess this, the GHQ accentuations on two principal classes of marvels: (1) powerlessness to persevere to complete ordinary "healthy" capacities and (2) signs of a troubling nature. The GHQ is a generally used measure of mental health. The GHQ has good test-retest reliability. The reliability coefficient is higher in readings in which there is a greater occurrence of illness and in which the GHQ is used within a comparatively small period (i.e.5-7 days) and ranges from .85 to .90. When utilizing an example drawn from the large public, the reliability coefficient decreases substantively. For instance, when the dependability of GHQ was estimated a year separated in a specimen of school leavers and men confronting severance, the test-retest connection was .58 and .51 correspondingly. The GHQ consumes both contents and constructs validity. 22 pieces of research are stating the correlation between GHQ scores and standardized psychiatric evaluation. The average correlation between GHQ and the criterion interview was .76 for the GHQ-28. The General Health Questionnaire-28 has a sensitivity of 84% and a specificity of 82%. Test-retest reliability is from 0.78 to 0.9 (Robinson & Price, 1982), and has a great inter-rater and intra-rater reliability (Cronbach's  $\alpha$  0.9-0.95) (Failde, Fernandez-Palacin & Ramos, 2000). Great internal reliability has similarly been stated (Failde, Fernandez-Palacin & Ramos, 2000). There is also found a good correlation between the hospital depression and anxiety scale (Sakakibara, miller, Orenczuk & Wolfe, 2009) and additional measures of depression (Price & Robinson, 1982).

There are four dimensions in this scale

1. Somatic symptoms measured by the first 7 items
2. Anxiety and insomnia by 8 to 14
3. Social dysfunction by 15 to 21
4. Severe depression by 22 to 28

All these statements need to be evaluated on a 4- point scale.

**Inclusion criteria-**

Farmers having domicile in Haryana state only will be included in this study. Farmers who have passed at least the 10th standard were included in this research.

**Exclusion criteria –**

Farmers having a history of mental illness were excluded from this study. Farmers who do another job or have other than farming as a career been also be excluded from this research.

**Statistical analysis**

After collecting the data, statistical analysis was made with the help of descriptive statistics (mean, standard deviation), Pearson Product-Moment method, and ANOVA.

**Results****Inter-correlation**

The correlation among suicidal ideation, somatic symptoms, anxiety and insomnia, social dysfunction, and severe depression was founded by using the Pearson Product-Moment method (Table- 1).

Table 1

Measures	Somatic symptoms	Anxiety/insomnia	Social dysfunction	Severe depression	Suicide
Somatic symptoms	1				
Anxiety/insomnia	.789**	1			
Social dysfunction	-.303**	-.369**	1		
Severe depression	.675**	.684**	-.174**	1	
Suicide	.560**	.543**	-.262**	.519**	1

The results showed that the measures of mental health namely somatic symptoms ( $r = .560, p < 0.01$ ), anxiety insomnia ( $r = .543, p < 0.01$ ), and severe depression ( $r = .519, p < 0.01$ ) significantly positively correlated with suicidal ideation means that the amount of suicidal ideation varies with the increase and decreases in anxiety/ insomnia, somatic symptoms and depression. On the other hand, social dysfunction ( $r = -.262, p < 0.01$ ) is significantly negatively correlated with suicidal thoughts meaning thereby there are inverse relation between them.

*Descriptive statistics and Analysis of variance*

Mean and standard deviation and ANOVA results of three groups of farmers on suicidal ideation, somatic symptoms, anxiety insomnia, social dysfunction, and severe depression have shown in the following tables.

**Table 2 One-way ANOVA results for three different groups of Farmers on Suicidal Ideation**

Variable	M	SD	N	
Landless	38.3280	20.34849	125	
1-9 Acre	40.2960	32.98192	125	
Above 9	3.8240	6.31953	125	
Source	Sum of Squares	Df	Mean Square	F
Between Groups	105191.909	2	52595.955	102.340**
Within Groups	191183.728	372	513.935	
<b>Total</b>	<b>296375.637</b>	<b>374</b>		

\*\*significant at  $p < .01$  level, \*significant at  $p < .05$  level

Table 2 indicates the results of ANOVA on suicidal ideation based on three categories of farmers having differently distributed land. It is evident that the F Value [ $F(2,372) = 102.34, p < .01$ ] is significant at the .01 level. That means three groups of farmers have a significant difference in suicidal ideation. The mean score of Farmers who have farming on 1-9 acre land score high on this scale and above 9 acre landholders have scored lower on this scale. That means, farmers with 1 to 9-acre land have more tendency or ideation toward suicide.

**Table 3 One-way ANOVA results for three different groups of Farmers on Mental Health (Somatic Symptoms)**

Variable	M	SD	N	
Landless	15.5520	2.98776	125	
1-9 Acre	15.7840	4.26460	125	
Above 9	11.6480	3.09071	125	
Source	Sum of Squares	df	Mean Square	F
Between Groups	1350.064	2	675.032	55.231**
Within Groups	4546.592	372	12.222	
<b>Total</b>	<b>5896.656</b>	<b>374</b>		

\*\*significant at  $p < .01$  level, \*significant at  $p < .05$  level

Table 3 reveals that the F value [ $F(2,372) = 55.23, p < .01$ ] is significant at the  $p < .01$  level. It indicates that there are significantly different between the groups' understudy on the dimension of somatic symptoms of mental health. Three groups of farmers show differences in the experience of somatic symptoms. The mean score of the farmer group who occupied 1-9 acre land is significantly higher as compared to other subgroups of the study; it means 1-9 acre landowners or farmers experience more somatic symptoms/problems. The mean score of farmers (above 9-acre land) is significantly lower, which indicates that the prevalence rate of somatic symptoms is low in this farmer group.

**Table 4 One-way ANOVA results for three different groups of Farmers on Mental Health (Anxiety/Insomnia)**

Variable	M	SD	N	
Landless	16.1360	3.22876	125	
1-9 Acre	16.7360	4.58986	125	
Above 9	11.4720	3.76867	125	
Source	Sum of Squares	Df	Mean Square	F
Between Groups	2075.941	2	1037.971	68.146**
Within Groups	5666.128	372	15.232	
Total	7742.069	374		

\*\*significant at  $p < .01$  level, \*significant at  $p < .05$  level

Table 4 reveals the results of one-way ANOVA on anxiety/insomnia (mental health) based on three categories of farmers. As can be seen F value [ $F(2,372) = 68.146, p < .01$ ] is significant at the  $p < .01$  level. Thus three groups of farmers are significantly different on the anxiety/insomnia dimension. The mean score of farmers with above 9-acre land has scored lowest while farmers with 1-9 acres of land have scored highest on this dimension. It indicates that farmers with 1-9 acre land are more prone to anxiety/insomnia as compared to other groups of farmers. The SMR for Maharashtra as reported by Mishra (2006) shows that seventy-six percent of all suicides in Maharashtra were committed in six districts. More than 4 acres of land were owned by about 60% of those who committed suicide and most of these were primarily cotton producers, 93% of those who committed suicide were in debt as per a report issued by the Maharashtra government. It's a simple inference. The starring role of debt in these suicides isn't as direct as believed by the policy creators, (Shamika, 2015).

**Table 5 One-way ANOVA results for three different groups of Farmers on Mental Health (Social Dysfunction)**

Variable	M	SD	N	
Landless	18.3840	3.14895	125	
1-9 Acre	16.6720	3.62735	125	
Above 9	20.5600	3.52274	125	
Source	Sum of Squares	Df	Mean Square	F
Between Groups	949.269	2	474.635	40.129**
Within Groups	4399.920	372	11.828	
Total	5349.189	374		

\*\*significant at  $p < .01$  level, \*significant at  $p < .05$  level

Table 5 shows the results of one-way ANOVA on social dysfunction (mental health) based on three categories of farmers. As can be seen the F value [ $F(2,372) = 40.129, p < .01$ ] is significant at the  $p < .01$  level. It indicates that these three groups have a significant difference in the social dysfunction dimension of mental health. Farmers with 1 to the 9-acre land group have scored lowest while farmers with above 9-acre land have scored highest on this dimension. The mean score of appropriate social dysfunctioning is high in farmers with above 9-acre land.

**Table 6 One-way ANOVA results for three different groups of Farmers on Mental Health (Severe Depression)**

Variable	M	SD	N	
Landless	16.9120	4.04215	125	
1-9 Acre	16.0160	5.54452	125	
Above 9	11.2640	4.64401	125	

  

Source	Sum of Squares	Df	Mean Square	F
Between Groups	2303.509	2	1151.755	50.333**
Within Groups	8512.288	372	22.882	
Total	10815.797	374		

\*\*significant at  $p < .01$  level, \*significant at  $p < .05$  level

Table 6 reveals the results of one-way ANOVA on severe depression (mental health) based on three different groups of farmers. As table 4.33 indicate F value [ $F(2,372) = 50.33, p < .01$ ] is significant at the  $p < .01$  level. These results show that the three groups have a significant difference in the experience of depressive symptoms. That means holding lands has an impact on a person's mental health. Landless farmers have the highest mean score on this dimension and the above 9-acre group of farmers have the lowest mean score on severe depression. It means landless farmers are at a high risk of depression as compared to other groups of the farmer

### Discussion

The mean score of Farmers who have farming on 1-9 acre land score high on this scale and above 9 acre landholders have scored lower on this scale. That means, farmers with 1 to 9-acre land have more tendency or ideation toward suicide. . (Mc Shane & Quirk, 2009; Page & Fragar, 2002) reported that Varied adverse conditions and long-term mental health problems consequences for the occurrence of suicidal thoughts in farmers. Suicidal thoughts among farmers are usually associated with mental illness. But there is still considerable room for improvement, including a need to increase awareness amongst health professionals and to overcome barriers that exist in the effective delivery of health care to this population. Gregoire, A. (2002). Mean score on dimension of somatic symptoms identifies that farmers with 1-9acre land shows more somatic symptoms than other two group of farmers and farmer with above 9acre land have had lower mean score on this dimension. Farmers with 1-9acre land filled with more anxiety and insomnic symptoms then other two group of farmers and farmers with more than 9acre land feels less anxiety. Farmers who have above 9acre land have not good social relations and farmers with 1-9acre land shows better mean score on this dimension than the other two groups of farmers. Landless farmers shows higher mean on the dimension depression and farmers with above 9acre land shows lower mean on this dimension. Farmers are subject to several unique occupational stressors, many of which have been aggravated in recent years by changes in farming practices and by economic factors. These are probably part of the explanation for the high rates of suicide in farmers and farm workers, which in the UK account for the largest number of suicides in any occupational group. Suicide is usually associated with mental illness, which, in farming communities, appears to be particularly stigmatized and poorly understood. This affects health-seeking behavior, which is compounded by the geographical isolation and inaccessibility of many services in rural areas. Our current understanding of these issues suggests several potentially valuable interventions.

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