



## **A Study to Assess the Level of Depression Among Farmers in the Selected Rural Community of Gurugram with A View to Develop Pamphlet on Prevention of Depression in All Three Levels**

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### **ABSTRACT**

*According to Gandhiji's Gram-Swaraj vision, villages and in particular farmers were to be the main focus of any development plan for India after independence. The factors that influence an individual's feelings of worthlessness, hopelessness, and helplessness are numerous, cumulative, repeating, and progressive, and they are undoubtedly influenced by his or her mental health status as well as their social strengths and limitations. To assess the level of depression among the farmers of selected villages of Gurugram, Haryana and to determine association of level of depression with selected socio-demographic Variables. A exploratory descriptive research design was conducted on 120 farmers were drawn through convenient sampling technique. The data was collected with the help of Beck depression inventory scale-II. The major findings of the study are 44.2 percent of subjects were in the age group of 44-66 year, 81.7 Percent of the subjects were male, 96.7 percent of the subjects were Hindu, 46.7 percent of subjects have secondary education, 60 percent of subjects had the family annual income of <2.5 lakh, 80 percent of subjects were married, 79.2 percent of subjects belongs to nuclear family, 28.3 percent of subjects are having the habit of smoking, 33.3 percent of subjects had 2 children, 58.3 percent of subjects are not having any source of financial support, 38.3 percent of subjects were working for 8-10 hours, 59.2 percent of subjects had the history of medical illness, 90.8 percent of subjects have own land, 50 percent of subjects have taken the loan from the bank and 50 percent have not taken loan from the bank, 63.3 percent of subjects have not faced any loss recently. Majority 33.3 percent are having moderate depression, 29.2 percent are having mild depression, 20 percent are having the minimal depression and remaining 17.5 percent are having severe depression.*

**Keywords:** Farmers; Depression; Beck depression inventory scale II; Rural community.

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### **INTRODUCTION**

The Indian economy's ongoing sustainable growth and development largely depend on agriculture and related professions. In addition to increasing the food and nutritional requirements of 1.3 billion Indians, it also has a significant impact on demand, employment, and production. Similarly, it is commonly recognised how essential the agricultural sector is to eliminating poverty and achieving the sustainable rate of economic growth [1]. Agriculture has been identified as a stressful sector of the economy, and findings suggest that stressors may be a trigger in the development or advancement of mental health conditions, especially anxiety and depression. Compared from their more experienced counterparts, young adult farmers and ranchers may be more susceptible to mental health disorders due to various additional stressors [2]. The percentage share of Gross Domestic Product (GDP) of agriculture provided to the Indian economy has declined in the past 3 decades, from 30.2 % to 11.8 % in 2013-2014 [3]. According to farmer associations, there is a problem since there weren't enough skilled workers from Uttar Pradesh and Bihar, refugees are returning to their home states, and the two states of Haryana and Punjab together need nearly to 16 lakh field workers for harvesting and procurement [4]. As per a report on Haryana agriculture and farmers' welfare, some of the biggest challenges farmers experience are diminishing agriculture productivity, increased cultivation expenditures, and inadequate price realisation. Farmers usually find it difficult to obtain good quality seeds, farmers-friendly small tools and agricultural implements are either inaccessible to people or they are uncertain of their performance, resulting in paying workers wages and increasing cultivation charges, a long chain of middlemen for marketing absorbs the farmers' margin, and they are unaware of the advanced techniques and various government schemes, that limits their ability [5].

One of the prestigious journal Clinical Epidemiology and Global Health published that, Vidarbha, one of the area of Maharashtra that has seen the most farmer death, roughly 60% of farmers, according to recent research by the International Institute of Population Science, need assistance for mental diseases (IIPS). The study's concluded that the health sector should select the qualified counsellors for identifying the need of the farmer and demonstrate to the farmer regarding how to overcome from such issues in rural areas across the country [6]. Every year, one in four people worldwide have mental health concerns. If farmers experience such problems at the same proportions as the general people, this would indicate over 25% of farmers experience mental health issues annually. Around 570 million farms exist around the world, of which 550 million are run by individuals. This would result that, based on a rough idea of 2-member families, 225 million farmers globally might suffer mental health issues annually [7]. The study concentrated on the difficulties Haryana state farmers had when adopting the cultivation of masumbi (*Citrus sinensis*). The Bhiwani district served as the site of the study. The scores depending on the severity of the issues were used to gauge the respondents' perceptions of the limits. Inputs, marketing, manufacturing, as well as technical and psychological restraints, were used to categorise constraints. The analysis of overall constraints as experienced by farmers revealed that the high cost of insecticides and pesticides, lack of input availability at the appropriate time, lack of agricultural processing units, lack of financial assistant, irregular climatic conditions, improper fertilizer, lack of post-harvest technology guidance, lack of knowledge of in fruit quality<sup>8</sup>. At the University of Kentucky College of Nursing, Lexington, Kentucky, and Alabama Capstone College of Nursing, University Boulevard East, Natalie Jo Hawes et al. public Health nurse 2019 may carry out a study to investigate the relationship of sleep, obesity, and depression in working farmer's family. BMI is supposed to be used in a linear regression together with other study factors (age, gender, and sleep). 1394 farmers who were 50 years of age or older were chosen. According to the findings, CESD scores and sleep apnea symptoms were both positively correlated with BMI. Age, gender, BMI, signs of sleep apnea, and poorer sleep quality all increased the likelihood that depression symptoms would increase. Thus, the study concluded that Farmers' unique lifestyles increase the chance of getting too little sleep. In this group of high-risk adults, screening for sleep pattern disruption and understanding its effects may lead to lower incidence of depression and obesity [9]. To assess the level of depression among farmers in selected rural community, level of depression among farmers with selected demographic variables and to develop & distribute the information pamphlet on prevention of depression in all three levels.

## MATERIAL AND METHODS

**Research Approach:** Exploratory descriptive approach was considered as best suited to assess the level of depression.

**Research Design:** Exploratory descriptive design to describe the level of depression among farmers.

**Research Setting:** This study was conducted in selected 2 villages of Gurugram, Haryana. The villages selected for the study were Pathreri and Garhi Harsaru.

### Study Variables:

1. **Research variable:** Level of depression and farmers.
2. **Demographic variable:** Age, Gender, Religion, Education, Family annual income, Marital status, Type of family, Habits, Number of children, Source of financial support, working hours, History of family illness, Ownership of agricultural land, any type of loan obtained from the bank and Any type of loss faced recently.

### Population

**Target population:** Farmers who are living in selected villages.

**Accessible population:** 120 farmers who are living in selected villages and also fulfill the inclusive criteria.

**Sample Size:** 120 farmers who are available at the time data collection.

**Sampling Technique:** Convenient sampling technique to draw the samples.

### Sampling criteria

#### Inclusion criteria: -

1. Farmers who are living in a selected rural community of Gurugram, Haryana.
2. Farmers who are given the concern.

#### Exclusion criteria: -

1. Farmers who are suffering from physical and mental illness.

### Tool for data collection

The tool was organized into two sections. They are as follows.

**Section - I:** It deals with demographic data which consists of 14 items to collect the sample characteristics.

**Section - II:** The scale mainly consists of 3 areas which contain 21 items, they are Psychological (15 items), Physical (5 items), and social (1 item).

Research approach used was the exploratory descriptive method which is a non- experimental design. The target population for the study were selected from village of Pathreri and Garhi Harsaru. 120 farmers were carefully chosen by convenient sampling technique.

#### **Procedure For Data Collection**

After obtaining permission from the Research Committee and Principal of SGT college of Nursing, Gurugram, Haryana and Sarpanch of village Pathreri and Garhi Harsaru. The data was collected in the month of march 2021 after that, consent was taken from respective farmers to conduct a study through Convenient sampling technique to select the sample. The researcher introduced herself to the participant and explained the purpose of the study and taken the willingness of the participants by taking signature and informed them that it will be kept confidential. Structured interview schedule was used to collect the data. The investigator took an average time of around 30 minutes for each participant's interview and an average 10-12 participant's data was collected per day.

#### **Description of the participants by demographic characteristics.**

**Age in years:** In this study, majority 44.2 percent of subjects are in the age group of 44 to 66 and 42.5 percent of subjects are in the age group 21 to 43. Remaining 13.3 percent are in the age group of 67 – 87 years.

**Gender:** In this study majority 81.7 percent of subjects are males and 18.3 percent are females.

**Religion:** In this study majority 96.7 percent of subjects belongs to Hindu, 0.8 percent belongs to Christians and 2.5 percent belongs to Muslims.

**Education:** In this study majority 40 percent of subjects have primary education, 46.7 percent have secondary education, 6.7 percent have high school education ,5.8 percent have Illiterate and remaining 0.8 percent have PUC and above education.

**Family annual Income:** In this study majority 60 percent of subjects have income of <2.5 lakh, 24.2 percent have the income of 2.5- 5 lakh ,15.8 percent have the income of >5 lakh.

**Marital status:** In this study majority 80 percent of subjects are married,15.8 percent are unmarried, 2.5 percent are Divorced and remaining 1.7 percent are widow.

**Type of family:** In this study majority 79.2 percent belongs to nuclear family and remaining 20.8 percent belongs to joint family.

**Habits:** In this study majority 28.3 percent of subjects have the habit of smoking, 24.2 percent have the habit of alcoholism, 9.2 percent have the habit of taking gutka ,25 percent have no habit, 5.8 percent have the habit of smoking and alcoholism, 0.8 have the habit of smoking and gutka ,0.8 percent have the habit of alcoholism and gutka and remaining 5.8 percent have habit of smoking, alcoholism and gutka.

**Number of children's:** In this study majority 33.3 percent of subjects had 2 children, 30.8 percent had 3 children,15.8 percent had more than 3 children ,8.3 percent had only one child and remaining 11.7 had no children.

**Source of financial support:** In this study majority 58.3 percent of subjects are not having any source of financial support and remaining 41.7 percent having the financial support.

**Working hours:** In this study majority 33.3 percent of subjects are working for 6 – 8 hours, 38.3 percent are working 8 – 10 hours, 12.5 percent are working 10-12 hours and remaining 15.8 percent are working 4-6 hours per day.

**History of family illness:** In this study majority 59.2 percent of subjects family have the history of medical illness, 29.2 percent have the history of surgical illness, 2.5 percent of farmers family have the history of psychiatric, 5.8 obstetric illness and 3.3 percent have no illness.

**Ownership of the land:** In this study majority 90.8 percent of subjects have own land and remaining 9.2 percent have their leased land.

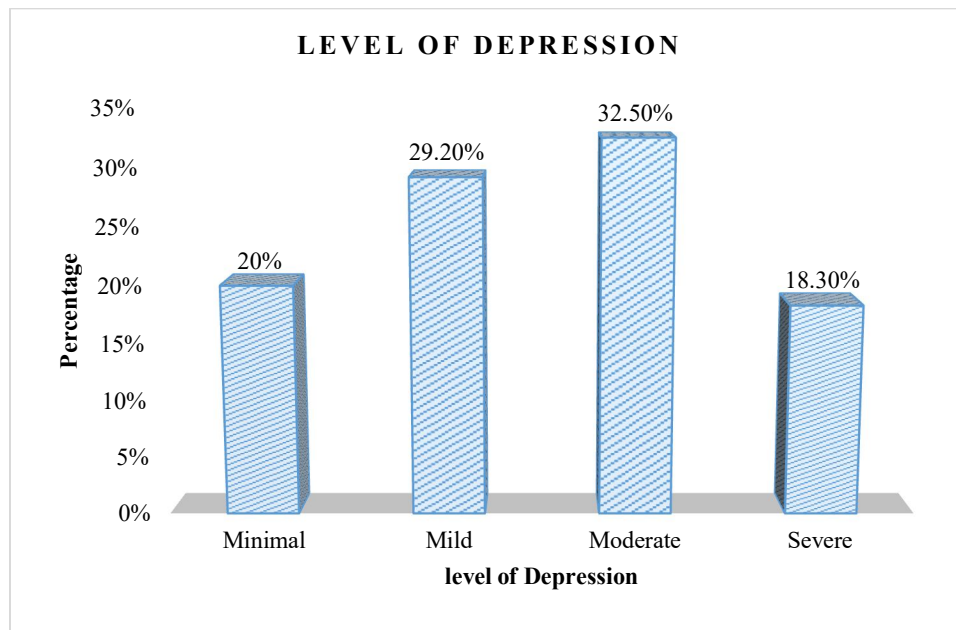
**Any type of loss recently:** In this study majority 63.3 percent of subjects have not faced any loss recently and remaining 36.7 percent have faced the loss.

## **RESULTS AND DISCUSSION**

**Table 1: Findings related to Assessing the depression among farmers.**

**N = 120**

<b>Level of depression</b>	<b>Frequency</b>	<b>Percentage</b>	<b>Mean</b>	<b>Mean %</b>	<b>SD</b>
Minimal	24	20%	10.79	17.12%	2.71
Mild	35	29.2%	16.22	25.75%	1.59
Moderate	39	32.5%	23.43	37.19%	2.61
Severe	22	18.3%	33.40	53.03%	3.50
<b>Total</b>	<b>120</b>	<b>100%</b>	<b>20.63</b>	<b>32.74%</b>	<b>8.03</b>



**Figure-1: Distribution of level of depression**

The above table shows the level of depression of the subjects. Majority 33.3 percent are having moderate depression, 29.2 percent are having mild depression, 20 percent are having the minimal depression and remaining 17.5 percent are having severe depression. Identifying the young adult farmer's occupational stressors and prevalence of anxiety and depression among this demographic were the goals of a study by Josie M. Rudolphi *et al.* published in *Community Mental Health Journal* in January 2020. To determine the causes of stress and the frequency of anxiety and depression among the young farming and ranching population, a reliable and valid online survey was employed. The survey asked questions about general health, farm/personal demographics, stress, anxiety, and depression. 170 young farmers and ranchers in all answered the poll. The sample's average age was 28.9 years who met the requirements for Major Depressive Disorder and Generalized Anxiety Disorder. Personal finances and time constraints were the two stressors that worried people the most out of the seven that were presented. Anxiety and depression were linked to personal finances, time constraints, economic situations, and employee interactions. The findings indicated that young adult farmers and ranchers have a significant prevalence of sadness and anxiety. Anxiety and sadness are linked to stressors that are frequently connected with farming and ranching. Additional studies should evaluate the prevalence of mental health issues in the participant, defensive factors for mental disease, and treatment options<sup>10</sup>.

#### **Association between the level of depression and demographic variables**

The obtained chi square value of the variables as age in years ( $\chi^2 = 21.92$ ), Annual family annual income ( $\chi^2 = 18.242$ ), number of children ( $\chi^2 = 25.128$ ,  $p > 0.05$ ) P value for these variables is less than 0.05 indicate significant associate with the variable. The obtained chi square value of the variables as gender ( $\chi^2 = 3.611$ ), religion ( $\chi^2 = 3.469$ ), education ( $\chi^2 = 19.273$ ), marital status ( $\chi^2 = 8.471$ ), type of family ( $\chi^2 = 4.416$ ), habits ( $\chi^2 = 27.097$ ,  $p > 0.05$ ), source of financial support ( $\chi^2 = 6.189$ ,  $p > 0.05$ ), working hours ( $\chi^2 = 10.325$ ,  $p > 0.05$ ), history of family illness ( $\chi^2 = 17.039$ ,  $p > 0.05$ ), ownership of land ( $\chi^2 = 3.181$ ,  $p > 0.05$ ), any type of loss faced recently ( $\chi^2 = 1.559$ ,  $p > 0.05$ ) P value for these variables is more than 0.05 indicate no significant associate with the variable.

#### **Limitations of the Study:**

- The sample for the study was limited to 120 farmers.
- The study is limited to the selected rural communities of Gurugram, Haryana.
- Convenient sampling technique adapted in the study may limit the generalization of the study findings.

#### **RECOMMENDATIONS**

The following recommendations are put forward for future research.

- Same study may be conducted on a bigger sample to generalize the results.
- Further study can be done among farmers to assess their knowledge regarding prevention of depression and coping with crisis situation.

- Experimental studies can be done to evaluate the effectiveness of different preventive strategies like counselling, group therapy, family therapy etc.
- The study can be done to identify the coping strategies followed by the farmers to overcome from depression.

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#### CONCLUSION

Thus, the study was concluded and suggest the need for planning educational programmes on prevention of depression among farmers. Farmers are the most vulnerable and neglected group of the community; hence emphasis must be placed on the farmers physical, emotional and mental health.

#### REFERENCES

1. Report of State of Indian Agriculture 2015-2016, Government of India, New Delhi, 2016; page no 1. Available [https://agricoop.nic.in/sites/default/files/State\\_of\\_Indian\\_Agriculture%2C2015-16.pdf](https://agricoop.nic.in/sites/default/files/State_of_Indian_Agriculture%2C2015-16.pdf)
2. Rudolphi, J.M, Berg, R.L & Parsaik. A. (2020). Depression, Anxiety and Stress among Young Farmers and Ranchers: A Pilot Study. *Community Ment Health J.* 56: 126-134.
3. Viswanathan, D. J., Veerakumar, A. M., & Kumarasamy, H. (2019). Depression, Suicidal Ideation, and Resilience among Rural Farmers in a Drought-Affected Area of Trichy District, Tamil Nadu. *Journal of neurosciences in rural practice*, 10(2), 238-244. [https://doi.org/10.4103/jnrp.jnrp\\_257\\_18](https://doi.org/10.4103/jnrp.jnrp_257_18).
4. Chitleen K Sethi. (2020). The Print- Punjab and Haryana stare at massive farm crisis as lockdown leads to labour shortage. Available from: <https://theprint.in/economy/punjab-and-haryana-stare-at-massive-farm-crisis-as-lockdown-leads-to-labour-shortage/391976/>
5. Report on Haryana agriculture and farming welfare by Indian council of food and agriculture. Website: [www.icfa.org.in](http://www.icfa.org.in).
6. Priyanka Bomble, Hemkothang Lhungdim. (2020). Mental health status of Farmers in Maharashtra, India: A study from farmer suicide prone area of Vidarbha region. *Clinical Epidemiology and Global Health.* P 684-688.
7. Briana N. M. Hagen, Ashley Albright, Jan Sargeant, Charlotte B. Winder, Sherilee L. Harper, Terri L. O'Sullivan, Andria Jones-Bitton. Research trends in farmers' mental health: A scoping review of mental health outcomes and interventions among farming populations worldwide, *PLoS One.* 2019; 14(12): e0225661, Published online 2019 Dec 5. doi: 10.1371/journal.pone.0225661.
8. Pawan Kumar, P. S. Shehrawat, Anil Kumar Rohila and B. S. Ghanghas and Ashok Kumar, (2016). Constraints faced by farmers of Haryana state in adoption of masumbi (*Citrus sinensis*) cultivation. *Journal of Applied and Natural Science.* 2016; 8 (2): 785 - 789 Available from: [https://www.researchgate.net/publication/330379129\\_Constraints\\_faced\\_by\\_farmers\\_of\\_Haryana\\_state\\_in\\_adoption\\_of\\_masumbi\\_Citrus\\_sinensis\\_cultivation](https://www.researchgate.net/publication/330379129_Constraints_faced_by_farmers_of_Haryana_state_in_adoption_of_masumbi_Citrus_sinensis_cultivation).
9. Natalie Jo Hawes, Amanda T Wiggins, Deborah B Reed, Frances Hardin-Fanning. (2019). Poor sleep quality is associated with obesity and depression in farmers. *Public Health Nurs.* 36(3): 270-275. doi: 10.1111/phn.12587. Epub 2019 Feb 13
10. Josie M. Rudolphi, Richard L. Berg & Ajay Parsaik. (2020). Depression, Anxiety and Stress among Young Farmers and Ranchers: A Pilot Study, *Community Mental Health Journal.* volume 56, pages126-134.

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