

A Study On Causes Of Stress To The Farmers During COVID-19 Pandemic

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ABSTRACT: *Background of the Study: India has experienced various epidemics such as cholera (1817-1923), Flu (1918), Small pox (1974), Plague (1994), Swine Flu (2009) have had a great impact on the economy, the environment and all other human activities, such as Dairy, livestock, agriculture, transport, education, tourism, health, fishing, mining, production, commerce, etc. Currently, humankind is facing another pandemic, the infection of the new coronavirus (2019-nCoV) that produces the disease known as COVID-19. As on today the second wave of coronavirus is threatening India, people are in the fear of survival and expecting another lockdown. In this pandemic situation almost every one of us has a fair reason to get stressed. This paper is an attempt to study the causes of stress to the farmers during COVID-19. The objective of this paper is to analyse the casus of stress to farmers due to the impact of COVID-19 and lockdown and their level of psychological stress in Selected Districts of Tamil Nadu and suggest some measures to moderate the problems.*

Methodology: *To study the casus of stress to farmers due to the Coronavirus and the Lockdown, the researcher has selected Two Districts (Salem & Dharmapui) on convenient basis. The researcher has collected 350 samples through interview technique and collected secondary data from Press media.*

Findings: *The researcher found, the farmers are having stress due to factors like inadequate price for the product and so on. And the causes are differing based on gender and size of land possessed by the respondent.*

Conclusion: *Soon we will come out from this pandemic situation; if at all Government will focus on the problems faced by the farmers, it will lead to another pandemic situation due to starving. Government should take necessary steps to moderate the stress causes and should do the needful to sort out the situation.*

Keywords: COVID-19, Agriculture, Stress.

1. INTRODUCTION

Wuhan of China, has reported the first case of new corona virus (2019-nCoV) on December 31, 2019 (WHO, 2020), which generates the disease that is now known as COVID-19. The disease is different from SARS-CoV and MERS-CoV. During the month of January-2020, the whole world got the alarm of rapid growth of this disease. Now this becomes the main global health problem, which is affecting the normal development of society and all its components. The new infectious disease is always risk (Burnet and White, 1972), from the

Spanish flu of 1918, to AIDS that still has no definitive cure and finding medicine and vaccine is really challenging. Well now, Covid-19 is the spreadable disease that threatens the humanity and disturbs the entire system. From past pandemics that the world has learned that, even though quarantines holds the spread but it has severe impact on human activities and economic growth (Hanashima and Tomobe, 2012; Bermejo, 2004; Arndt and Lewis, 2001). The outbreak of infectious disease, increase the hunger and malnutrition (Burgui, 2020; Saret *et al.*, 2010). The situation worsens as the disease progresses, making lockdowns and other restrictions will stringently the situation. The disturbance in supply chain create problems manufacturing, packaging, distribution, storage and even in further forming (Chen *et al.*, 2020). Initially, the announcement of lockdown, will made people to approach vendors for bulk purchases and create excess of demand over supply conditions. But later this will create issues like immobility of labour and other resources and difficulties in reaching the market, difficulty in storing the perishables, non-availability of fund which will create immense stress to the farmers and the farmer's sustenance will become a question mark during lockdowns.

Psychological stress is created when a person is feeling helpless to handle a situation or thinks in a negative or exaggerated way about the past, present or perceived future. In other words, it is created by the way we think. One person may feel stressed or overwhelmed by a situation, and another may not, or may even see that same situation as a challenge or an opportunity. The first person is likely to encounter stress, because of his own negative thinking. The latter person may not have stress because of his positive thought process (Gopinath *et al.*, 2021). We are the creators of our own destiny. Our perception about the situation decides our stress. The Psychological stress will create may increase blood pressure, Heart may pound, Muscles may tighten, Stomach may become tense, Concentration may get worse, Forgetfulness may get worse (Gopinath and Ganesan, 2014). This will create following effects; Physical effects are frequent colds or flu, headaches, trouble sleeping, muscle tension, skin problems, trouble with digestion. Mental effects are Poor concentration, forgetfulness, learning problems, frequent negative thoughts, and speech problems. Emotional effects are Anxiety, depression, anger, irritability, feelings of helplessness, lack of purpose, relationship troubles. Behavioral effects are eating poorly, driving recklessly, and abusing alcohol or drugs, being accident prone, showing aggression (Gopinath, 2011a).

2. REVIEW OF LITERATURE

The major impact of Covid-19 outbreak would be on supply side of the market since the production got disturbed by lock down and fear of infection. This shortage in economical and agricultural activities is expected affect global GDP by 0.1 to 0.4% or \$77 billion to \$347 billion (Abiad *et al.*, 2020). This even expected to have impact on stock market due to various reasons i.e. it affects public health and economy, inter connection among economies. The severances are expected to extend on entrepreneurs (Gopinath and Chitra, 2020b) and even on farmers. He also pointed that under reasonable current scenarios, a global recession is much likely to occur due to crash international trade in goods and services (Baldwin and Tomiura, 2020). Sengupta, (2020) is also expected that COVID'19 will affect all the sectors like international trade, financial markets, unemployment, income, poverty and global trade. Sharath and Yogish (2020) also pointed that, during the period of lockdown the farmers had issues in procuring seeds for further cultivation, deficiency in pesticides, and lack of market for the products and non-availability of labour force. Gopinath (2011 c) found that exhibited that deplorable conditions like distancing the mistrust, co-worker, reluctance to adapt to changes, non-acceptance of other union members, neglecting the work of

others, craving for self-importance, low spirit, low level of functional ownership and fear of assuming responsibilities.

There are extensive studies about the stress of organisational employees (Gopinath and Chitra, 2020a; Gopinath, 2014a), Even there are numerous studies explaining the role of emotional intelligence in moderating the level of stress (Gopinath, 2014b; Sivakumar and Chitra, 2017) but the situation of COVID'19 has created stress to almost all fields of economy and created severe physical and emotional consequences. (Kyriacou, 2001) stated that experience of negative emotional states such as frustration, worry, anxiety and depression attributed to work related factors would be the prime causes of stress. Even non availability of sufficient work force, fear of inadequate demand to the products will also expect to have strong influence on the stress level of employees (Gopinath, 2013). In case of teachers the causes would be handling of online classes and the pressure of producing result causes stress (Chitra, 2020). And it has been found that Researchers found that factor like emotional intelligence (Chitra and Vanadhi, 2021), Knowledge Management (Gopinath, 2011b) is some factors which have the power to moderate the stress. In this present study, Problems in marketing the goods, Problem in transportation, Lack of financial support from government, Non availability of workers due to fear of infection, Non availability of storage facility for perishable goods and Shortage of seeds and fertilizers are considered as the causes of stress during COVID'19 and the stress of farmers due to these problems is analyzed. Gopinath (2011 d) concluded that workplace emotions were multi dimensional in the organization and a service enterprise / corporate has the onus of harvesting the change of emotions to construct a professional work move toward in employees

2.1. Objectives of the study

Objective of this study is to analyse the causes of stress to the farmers during COVID'19. To fulfill this objective analysis is made with the help of Henry Garrett Ranking Method, Analysis of Variance and Independent sample t test.

3. METHODOLOGIES

3.1. Procedure of the study

Aim of the study is to analyse the problems faced by the farmers during of COVID'19 and the lockdowns and the causes of stress to the farmers due to the same. The researcher has collected samples from Dharmapuri and Salem districts. Totally 350 samples were collected using Simple Random sampling technique. Henry Garrett Ranking Method, Analysis of Variance and Independent sample t test.

4. RESEARCH ANALYSES

4.1. Problems Faced by the Farmers during COVID'19 Lockdown

The COVID'19 and the Lockdown because of the pandemic situation has given problems like Non availability of workers due to fear of infection, Non availability of storage facility for perishable goods, Lack of financial support from government, Shortage of seeds and fertilizers, Unable to get fair price to their goods, Problem in transportation, Problems in marketing the goods. The researcher attempted to study the most influencing problem to the farmers. So the farmers are requested to rank the problems based on their perception. The one what they consider as more problematic is ranked as first and the problem what they consider as manageable is ranked as least. The responses given by the respondents have been analysed

using Henry Garrett Ranking Method. On the basis of total score and mean score of each of these factors, they have been ranked to identify the perception of Problem by the farmers.

Causes of Stress	Mean Score	Rank
Non availability of workers due to fear of infection	44.22	V
Non availability of storage facility for perishable goods	41.76	VI
Lack of financial support from government	48.17	IV
Shortage of seeds and fertilizers	32.20	VII
Unable to get fair price to their goods	63.49	I
Problem in transportation	48.94	III
Problems in marketing the goods	53.46	II

Table 4.1. portrays that the farmers consider problems in getting fair price to their goods as the prime problem due to COVID'19 lockdown. Followed by Problems in marketing the goods, Problem in transportation, Lack of financial support from government, Non availability of workers due to fear of infection, Non availability of storage facility for perishable goods and Shortage of seeds and fertilizers is considered as the least problem by the farmers.

4.2. ANOVA for Significant Difference among Area of Land Owned by the Respondents with Respect to Causes of Stress

With a view to full fill the objectives of the study, the researcher has examined the significant difference among the size of land possession of the respondents and the causes of stress. In this regarding the following hypotheses have been formulated and tested by performing analysis of variance.

H₀: *There is no significant difference among the respondents having different size of land and the cause of stress.*

Factor	Land Possession					F-value	P-value
	Less than 1 acre	1-3 acres	3-5 acres	5-7 acres	8 acres and above		

Non availability of workers due to fear of infection	3.64 (0.492) a	3.61 (0.935) a	4.09 (0.61) a	3.81 (0.873) a	3.75 (0.707) a	3.832	0.005
Non availability of storage felicity for perishable goods	3.18 (0.853) a	3.45 (0.726) a	4.06 (0.639) b	3.19 (0.402) a	3.38 (0.518) a	12.587	0.001
Lack of financial support from government	3.68 (0.568) a	3.72 (0.736) ab	4.2 (0.622) c	4 (0) abc	4.13 (0.354) bc	6.724	0.001
Shortage of seeds and fertilizers	3.5 (0.673) a	3.67 (0.762) ab	4 (0) b	4 (0) b	3.63 (0.744) ab	5.401	0.001
Unable to get fair price to their goods	3.64 (0.848) a	3.74 (0.911) a	4.19 (0.71) ab	4.33 (0.796) b	3.88 (0.354) ab	4.936	0.001
Problem in transportation	3.36 (0.727) a	3.41 (0.848) a	4.09 (0.426) b	3.9 (0.539) b	3.38 (0.744) a	11.194	0.001
Problems in the marketing goods	3.5 (0.673) a	3.67 (0.762) ab	4 (0) b	4 (0) b	3.63 (0.744) ab	5.401	0.001
<p>➤ Different alphabet difference among the respondents possessing different size of land and cause of stress denotes significant at 5% level using Duncan Multiple Range Test (DMRT)</p> <p>➤ Values in () indicates Standard Deviation.</p>							

Since the p-value is less than 0.01 the null hypothesis is rejected at 1% level of significance with regard to Problems in marketing the goods, Problem in transportation, Lack of financial support from government, Non availability of storage felicity for perishable goods and Shortage of seeds and fertilizers and the null hypothesis is rejected at 5% level of significance with regard to Non availability of workers due to fear of infection. So the null hypothesis stating that there is no significant difference among the respondents having different size of land and the cause of stress, holds no good and the significant difference is found among respondents having different size of land and the cause of stress. Gopinath (2020) outlined that the ages of respondents with regards to self-awareness and respect of managing emotions by emotional intelligence through Duncan Multiple Range Test.

Based on Duncan Multiple Range Test (DMRT) there is no significant difference between the acres of land owned by respondents with regards to Non availability of workers due to fear of infection during COVID'19 lockdown.

There is a significant difference between 3-5 acres owned respondent and among 1-3 acres, 5-7 acres and 8 acres and above land owned respondents. And there is no significant difference among 1-3 acres, 5-7 acres and 8 acres and above land owned respondents with respect Non availability of storage felicity for perishable goods.

Respondent's having are significantly differ with 3-5 acres and more than 8 acres owned respondents. 1-3 acres , 5-7 acres and above 8 acres owned respondent are significantly differed with less than 1 acre and 1-3 acres owned respondents. There is no significant difference among less than 1 acre, 1-3 acres, and 5-7 acres owned respondent and among 1-3 acres, 5-7 acres and 8 acres and above owned respondents and also among 3-5 acres, 5-7 acres and 8 acres and above owned respondents with regard to lack of financial support from Government.

Respondents having less than 1 acre are significantly different with 3-5 acres owned respondents and 5-7 acres owned respondents. There is no significant difference between less than 1 acre owned, 1-3 acres owned and 8 acres and above owned respondents and also among 1-3 acres, 3-5 acres, 5-7 acres and 8 acres and above owned respondents with respect to shortage of fertilizers.

Respondents having less than 1 acre and 1-3 acres are significantly different with 5-7 acres owned respondents. There is so significant difference among less than 1 acre, 1-3 acres, 3-5 acre and 8 and above acres owned respondents and also among 3-5 acres 5-7 acres and 8 acres and above owned respondents with respect to unable to get fair price to goods.

Respondents with less than 1 acre, 1-3 acres and 8 acres and above are significantly differing with 3-5 acres and 5-7 acres. There is no significant difference among less than 1 acre, 1-3 acres 8 acres and above owned respondents and also among 3-5 acres and 5-7 acres owned respondents with respect to problems in transportation.

Respondents having less than 1 acre are significantly different with 3-5 acres owned respondents and 5-7 acres owned respondents. There is no significant difference between less than 1 acre owned, 1-3 acres owned and 8 acres and above owned respondents and also among 1-3 acres, 3-5 acres, 5-7 acres and 8 acres and above owned respondents with respect to problems in marketing goods.

4.3. Gender and causes of stress

The relationship between gender of the respondents and causes of occupational stress has been examined using independent samples t-test. In this regard, the following hypotheses have been framed and tested.

Ho: *There is no significant difference between male and female respondents regarding various categories of causes of stress.*

Causes	t-value	p- value	Result
Non availability of workers due to fear of infection	1.23	0.001	Significant @ 1%
Non availability of storage facility for perishable goods	2.45	0.003	Significant @ 1%
Lack of financial support from government	1.67	0.000	Significant @ 1%
Shortage of seeds and fertilizers	2.05	0.032	Significant @ 5%
Unable to get fair price to their goods	1.78	0.000	Significant @ 1%

Problem in transportation	2.67	0.000	Significant @ 1%
Problems in marketing the goods	2.54	0.000	Significant @ 1%

From the Table 4.3 t-value stats the relationship between gender of the respondents and stress pertaining to Non availability of workers due to fear of infection has been ascertained to be 1.23 and the p-value of the same has been found to be 0.001, since the p-value is less than 0.001 the null hypothesis, There is no significant difference between male and female respondents regarding Non availability of workers due to fear of infection is rejected at 1% level of significance. Hence it can be concluded that there is significance between male and female regarding stress pertaining to Non availability of workers due to fear of infection.

The relationship between gender of the respondents and stress pertaining to Non availability of storage felicity for perishable goods has been measured by t-value of 2.45 and p-value of 0.003. The p-value of less than 0.01 leads to the rejection of the Null hypothesis stating there is no significant difference between male and female respondents regarding Non availability of storage felicity for perishable goods at 1% level of significance. Thus it can be concluded that there is a significant difference between gender and stress pertaining to Non availability of storage felicity for perishable goods.

The t-value and p-value regarding the stress pertaining to Lack of financial support from government is 1.67 and 0.000. Since the p-value is less than 0.01 the Null hypothesis stating there is no significant difference between gender and stress pertaining to Lack of financial support from government is rejected at 1% level of significance. From this it can be stated that there is a significant difference between gender and stress pertaining to Lack of financial support from government.

Regarding the difference between gender and stress pertaining to Shortage of seeds and fertilizers, the t-value is 2.05 and the p-value is 0.032. The p-value less than 0.05 leads to Rejection of null hypothesis stating there is no significant difference between gender and stress pertaining to Shortage of seeds and fertilizers at 5% level of significance. Hence there is significant difference between male and female and stress pertaining to Shortage of seeds and fertilizers.

The t-value and p-value regarding the stress pertaining unable to get fair price to their Goods is 1.78 and 0.000. The p-value less than 0.01 leads to rejection of null hypothesis stating there is no significant difference between gender and stress pertaining to Unable to get fair price to their goods at 1% level of significance. From this it can be stated that there is a significant difference between gender and stress pertaining to Unable to get fair price to their goods.

Regarding the difference between gender and stress pertaining to Problem in transportation t-value is 2.67 and p-value is 0.00. The p-value less than 0.01 leads to the rejection of Null hypothesis stating there is no significant difference between gender and stress pertaining to Problem in transportation at 1% level of significance. So there is a significant difference between male and female regarding stress pertaining to Problem in transportation.

The t-value and p-value regarding the stress pertaining to Problems in marketing the goods is 2.54 and 0.00. Since the p-value is less than 0.01 the null hypothesis stating that there is no significant difference between gender and the stress pertaining to problems in marketing the goods is rejected at 1% level of significance. So we can conclude that the perception of male and female are not same regarding the stress pertaining to problems in marketing the goods.

5. FINDINGS

The outbreak of COVID-19 due to corona virus has created problem in survival of each and every one of the world. Nations are struggling to safeguard their citizens and economy. India as world's second largest populated country, the problems due to COVID-19 is Indescribable in words. Government is taking pugnacious efforts to sort out the situation. As India is an agriculture based country, the problem and issues faced by the agricultural sector might have rippling effects on all the sectors of the economy. This paper is an attempt to study the causes of stress to the farmers. From the Henry Garrett Ranking analysis it's found that the farmer are encountering stress due to problems like Non availability of workers due to fear of infection, Non availability of storage facility for perishable goods, Lack of financial support from government, Shortage of seeds and fertilizers, Unable to get fair price to their goods, Problem in transportation, Problems in marketing the goods. Out of these problems the farmers consider problems in getting fair price to their goods as the prime problem due to COVID'19 lockdown followed by Problems in marketing the goods. The result of Analysis of Variance explains significant difference among the respondents possessing different size of land and the causes of stress. The result of independent sample t test elucidates the significant difference between male and female regarding the causes of stress.

6. CONCLUSION

Regardless of the sectors, almost all are facing a sort of stress and increased emotions during this COVID'19 period. As India is an agriculture based country and agriculture is considered as the backbone of the economy, the problems and stress pertained to farmers not only influence the particular sector, instead it will influence all the sectors of the economy. This paper considers Non availability of workers due to fear of infection, Non availability of storage facility for perishable goods, Lack of financial support from government, Shortage of seeds and fertilizers, Unable to get fair price to their goods, Problem in transportation, Problems in marketing the goods would be the factors causing stress during COVID'19 period. The results of research analysis explains the problems in getting adequate and fair price to their efforts during COVID'19 period is considered as the prime stressor by the farmers and the causes are different among the respondents having different size of land and different between male and female. Even though the focus is on saving the lives of people the Government should also focus of sorting out the problems faced by the farmers, otherwise later deficiency of food product would also be the major issue of pandemic. The farmers suffered from stress due to COVID-19 pandemic issues. The Government may give the most priorities and take necessary steps to the farmers for eliminate their psychological stress in the Pandemic period.

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