

## Stress Management on Farmers in Agricultural Areas

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### ABSTRACT

Farmers often experience psychosocial problems caused by stress due to crop failures and a low economy. Psychosocial issues can also occur due to constraints experienced by farmers, such as weather changes, large imports of materials, and decreased prices for food grown due to abundant crop yields. This study aims to discover the psychosocial problems in farmers caused by stress due to crop failure and a low economy. This study uses the literature review method. The search was carried out based on three databases: Science Direct, PubMed, and Google Scholar. Some of the psychosocial problems that can occur in farmers include anxiety, fatigue, loss of interest in usual activities, difficulty sleeping, and changes in body weight. Farmers can also feel lonely and isolated because they tend to do their work on the farm. In addition, farmers can also experience stress due to social pressure from the surrounding community, which requires them to be successful in farming. This can affect the mental health of farmers and exacerbate pre-existing psychosocial conditions. Farmers who work in agriculture have many economic and psychosocial risks. Among other things, farmers can be at risk of experiencing crop failure, which can cause various things. Therefore, farmers need to know how to deal with crop failure, how to prevent it, and how to cope with stress during crop failure as a first step to dealing with the risk of psychosocial disturbances in farmers due to crop failure.

Keywords: stress; farmer; stress management

## INTRODUCTION

Farmers are a job done by planting crops and then harvesting the crops for sale or consumption. Farmers must know the plants for good yields (Wijaya et al., 2019). The problems faced by farmers during the planting period can have an impact on their psychological health, which will result in decreased work productivity and subjective well-being. Feelings of anxiety, difficulty concentrating, and irritability are indicators of high levels of negative emotions, as well as dissatisfaction due to experiences of failed harvests, which are also included in the low psychological well-being of farmers. Work-related stress can cause emotional reactions, changes in habits or mentality, and physiological changes (Fitria et al., 2023).

Stress is the body's reaction to the demands of life due to environmental influences. Stress is caused by an imbalance between the pressures that exist on an individual so that the individual cannot deal with these pressures (Kurniyawan et al., 2023). Stress indicates that a person's thinking becomes irrational/harmful (Apsari et al., 2020). Work stress is pressure experienced by workers due to tasks or a large amount of work that cannot be fulfilled (Dewi et al., 2020). Someone who experiences stress usually experiences physical responses such as loss of appetite, decreased focus, and headaches. The psychological responses include feelings of anxiety, decreased motivation, lack of self-confidence, and boredom. Meanwhile, organizational responses include decreased work productivity, lack of contribution to work, and so on (Ningrum et al., 2020).

Management is the science and art of utilizing resources effectively and efficiently (Nur et al., 2023). Stress management is one way that can help reduce blood pressure, anxiety scores, and psychosocial problems; these conditions can be related because anxiety causes increased blood pressure. It is necessary to increase knowledge with health education so that sufferers can have a better attitude toward their health problems; some things that can be done are deep breathing and progressive muscle relaxation (Susila et al., 2023). This study aims to discover the psychosocial problems in farmers caused by stress due to crop failure and a low economy.

**METHOD**

This study uses the literature review method. The search was based on three databases: Science Direct, PubMed, and Google Scholar. The range of publication years in the last five years (2018-2023). In the literature search, several keywords were used in English and Indonesian. In the English language literature search, use the keywords "Management Stress" OR "Management Stress in Farmers" OR "Psychosocial Problems" OR "Psychosocial Problems in Farmers" AND "Nursing Prevention" OR "Nursing Implementation for Crop Failure". Meanwhile, in the Indonesian language, the literature search using the several keywords "Manajemen Stres" OR "Manajemen Stres Pada Petani" OR "Masalah Psikososial" OR "Masalah Psikososial Pada Petani" AND "Pencegahan" OR "Implementasi Keperawatan." The literature search process, including identification, screening, filtering, to selecting ten journals that are following the research criteria.

The article search process begins with identifying predetermined keywords. In the identification step, 6.523 articles match these keywords. The next stage is to conduct screening by choosing the title of the article and the year of publication based on the research criteria. Next, at the screening step, 2.153 articles are suitable for the research criteria. After that, the next step is to filter articles adjusted to the inclusion and exclusion research criteria. Four hundred thirty-eight articles fit the criteria for inclusion and exclusion research. After that, filter articles to focus on articles according to research criteria. In this step, 20 articles fit the criteria. Then, from the 20 articles, they were again filtered for language, research design, results, and several other criteria that had been determined. Finally, ten selected articles were determined according to research criteria and can proceed to the analysis stage.

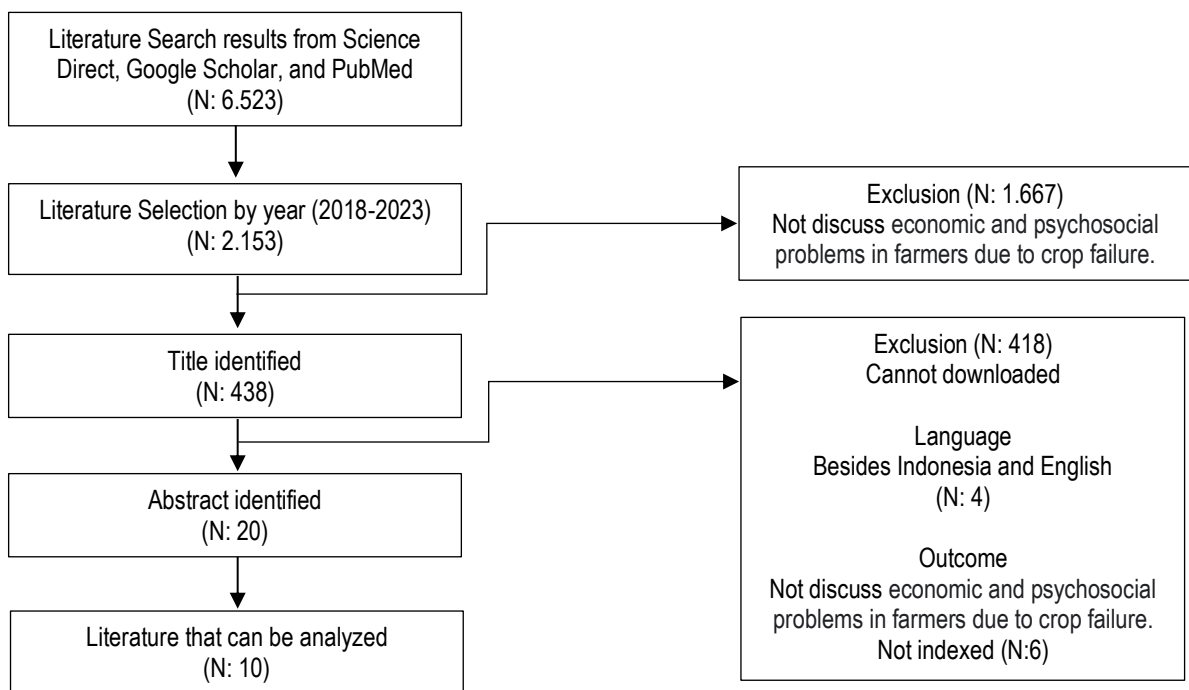


Figure 1. Flowchart of Literature Search

**RESULT**

Table 1. The Results Literature Review

ID Number	Author and Journal Identity	Journal Titles	Objective	Population and Sample	Method	Summary of Results
A1	Author : Ningrum, SM, Dewi, EI, & Kurniawan, EH Journal Identity: e-Journal Pustaka Kesehatan/202 2/Vol 10 (No.2)	The relationship between work stress and fatigue of kart farmers at PTPN XII Kebun Renteng-Ajung Jember	This research was conducted to analyze the relationship between work stress and work fatigue in rubber farmers.	78 rubber farmers in PTPN XII Kebun Renteng, Ajung District, Jember Regency, using simple random sampling	This study used a cross-sectional design.	Based on the results of the study, it was found that there was a relationship between work stress and job burnout with $p=0.000$ . The correlation is equal to 0.538, which indicates a relationship or relationship between positive and moderate affinity; that is, the lower the work stress, the higher the burnout.
A2	Author : Fitria, DA, & Riyadi , MI Journal Identity: Indonesian Counseling Journal /2021/Vol 3 no.2022	Stress coping strategies for melon farmers after crop failure in Maguwan Village, Sambit District, Ponorogo Regency	This study aims to summarize and describe various situations and conditions or social phenomena in farmers with stress problems caused by crop failures in Maguwan Village, Sambit District, Ponorogo Regency.	Farmers experiencing stress due to crop failure in Maguwan Village, Sambit District, Ponorogo Regency	This research uses descriptive and qualitative research types, namely a research method that is carried out by utilizing qualitative data and then described descriptively. This type of qualitative descriptive research analyzes an event, social situation, and phenomenon.	The stress coping strategy carried out by melon farmers after experiencing a crop failure to be precise in Maguwan Village, Sambit District, Ponorogo Regency, shows the psychological conditions experienced by farmers who fail to harvest, conditions such as experiencing trauma, anxiety, depression, psyche, and disappointment. Then, implement coping stress strategies to overcome the psychological conditions of farmers who experience crop failure, and the results have a positive impact. Before carrying out a coping strategy, farmers who fail to harvest have their way of managing their emotions, for example, by praying, sharing, or crying.
A3	Author: Septiani , AN, Wuryaningsih , EW, & Kurniyawan , E.H Journal Identity: e-Journal Pustaka Kesehatan/201 9/Vol 7 No. 3	Description of psychological distress in tobacco farmers in Kalisat District, Jember Regency	Tobacco. This research aims to analyze si s psychological distress experienced by tobacco farmers in the Kalisat District, Jember Regency	Tobacco farmers in the Jember area, Kalisat District, with a total of 8,688 respondents	This research method uses descriptive analysis.	Tobacco farmers were found to have complaints, including nausea, headaches, vomiting, indigestion, and skin disorders; farmers also had other complaints, namely psychologically, including farmers experiencing unstable emotions. Faster to anger, experiencing back pain, fatigue, and sleep disturbances. Based on the complaints experienced by

						these farmers, most of them are complaints of psychological distress.
A4	Author: Novia, RA, & Zulkifli, L. Journal Identity: Journal of AGRISEP/2021 /Vol 20 No. 2	Harvest failure on rice farming household food security in Banyumas Regency	This research was conducted aiming to determine the impact of crop failure on the food security of rice farming households by calculating the energy adequacy rate (AKE) and the share of food expenditure (PPP)	60 respondents who had many rice fields with crop failure during the second harvest season in 2019	This study uses an analytical descriptive method used in research based on current problem-solving. The research analysis method compares the food security level of rice farming households when farmers experience regular harvests and when farmers experience crop failure.	Based on the study's results, it was found that crop failure reduced the food security of rice farming households in Banyumas Regency, where the number of food-secure farming households decreased, food vulnerability increased, food shortages increased, and food insecurity increased. Reduced household food security due to more dominant crop failure due to changes in the Food Expenditure Share (PPP) with an increasing high category. Relative crop failure does not affect the total Energy Adequacy Rate (AKE)
A5	Author: Sunarti Journal Identity: Socialization Journal/2021/V ol 8 No. 2	Sugarcane farmer adaptation during crop failure (case study: Kedungmakan Village, Jatirogo District, Tuban Regency)	This study aims to discuss how sugarcane farmers adapt when they experience crop failure in their sugarcane plants	the sugarcane farmers. Jatirogo, Tuban Regency.	This study uses a qualitative research method with a phenomenological approach, which means it is adapted to the experiences of the informants. Theoretical perspective: What is used is the theory of social behavior, "instrumental rationality," by Max Weber.	The conclusion is that to get sugarcane with a low level of crop failure; several preparations are needed, including preparing fertilizer, predicting the weather, and hiring farm laborers to help during the sugarcane planting period. Also, immediately repair sugarcane plants when damaged, which strong winds or pests can cause.
A6	Author: Azmi, F., Faisal, TM, Suransyah, A., Sinaga, S., & Firlil, A Journal Identity: UNSAM e- Journal/2023/V ol 1 No 2	Identification of the causes of crop failure for added farmers: Inventory and Implications of fishery biosecurity in Langsa City	This study investigates the history of fish diseases that have spread among farmers in Langsa Barat District, Langsa City.	Pond owners were the respondents, with a sample of 15 people.	This research method is based on qualitative data, so data analysis is based on descriptive statistics by describing the distribution of respondents' answers using tables and graphs.	The results showed that crop failure was dominated by fish diseases, including quarantine diseases such as white spot syndrome virus in shrimp, followed by natural disasters such as full moon tides. In addition, the results of interviews with added farmers also show the low level of public awareness of the fisheries' biosecurity mechanism
A7	Author: Putra, MAR, Dewi, EID, & Kurniyawan, E. H	The relationship between resilience and burnout among rice farmers in	Knowing the relationship between resilience and fatigue in rice	80 rice farmers conducted with a questionnaire scale of 1-4 and an MBI-GS	Symmetric associative quantitative study, using a cross-sectional approach	There is a significant relationship between resilience and burnout in rice farmers; the higher the farmer's resilience, the

	Journal Identity: e-journal Pustaka Kesehatan/202 2 /Vol. 9 (No. 3)	Ampel Village, Wuluhan	farmers in Ampel Village, Wuluhan Regency	questionnaire	with a sampling technique using random sampling.	lower the burnout experienced, and vice versa.
A8	Author: Sabariman, H., & Susanti, A. Journal Identity: Brawijaya Journal of Social Science/2021/V ol 1 No. 1, 2021	Socio-economic vulnerability and adaptation strategies for poor farming families during the Covid-19 pandemic: A case from Madura	Knowing the condition of the socio-economic vulnerability of poor farming families and various efforts in dealing with the Covid-19 pandemic	Five farmers in Ponteh Village, Galis District, Pamekasan Regency	Using descriptive qualitative data collection methods in the form of volunteer observations, interviews, field notes, and documentation.	Poor farming families experience socio-economic vulnerability in the form of health, the spread of Covid- 19, and environmental disasters. In general, the social vulnerabilities faced are difficulties in mobility and accessibility in obtaining the same income as before the pandemic.
A9	Author: Sofian A., Yanti. N., Ni'matul Illiyun N. Journal Identity: Journal Knowledge Social and Humanities /Vol 10, No.3, 2021	The dynamics of the economic life of salt farmers in Dresi Kulon Village	Knowing the dynamics of what is happening in the life of traditional salt farmers in Dresi Kulon Village and what strategies are used by salt farmers to meet their economic needs	Three volunteers from salt farmers are cultivators, and two others are pond owners.	Qualitative research with an analytical descriptive approach. Data obtained through participatory observation, in- depth interviews, and documentation	The obstacles experienced by salt farmers include weather changes, large imports of salt, and decreased salt prices due to abundant salt yields. So that makes them do side jobs and take advantage of relationships or networks. Salt farmers carry out a moral economic survival mechanism for farmers using the theory of James C. Scott
A10	Author: Gultom , F., & Harianto , S. Journal Identity: Journal of Social Development /2021/Vol 4 (No. 2)	The Green Revolution changed the socioeconomic conditions of the farming community.	This study aims to explain the phenomenon of dependence on farming communities in Indonesia.	Farmers who depend on chemical fertilizers	This research uses literature study methods, where data is obtained through books, journals, news, articles, and other relevant sources. The data is then analyzed and related to the dependency theory.	The results of this study found that farming communities in Indonesia are very dependent on using chemical fertilizers. Chemical fertilizers are government-subsidized fertilizers, even though chemical fertilizers themselves can damage ecosystems. In addition, the scarcity of subsidized fertilizers forces farmers to buy expensive non- subsidized fertilizers.

## DISCUSSION

Of the many studies conducted, it was found that farmers often experience psychosocial problems, which occur due to many factors such as industrial restructuring, family responsibilities, and climate change. Farmers in Indonesia are vulnerable and at risk of various health problems, including psychosocial factors that can affect health problems among farmers, including stress due to workload (Putra et al., 2022).

Other studies also state that psychosocial problems can occur due to constraints experienced by farmers, such as weather changes, the large number of imported materials, decreased prices of food grown due to abundant crop yields, and low education (Sofian et al., 2021). As with the results of interviews in other studies, it is known that additional farmers show a low level of public awareness of biosecurity mechanisms fisheries, which means the stress of the farmer is due to crop failure, in which farmers do not know the knowledge related to biosecurity mechanisms (Azmi, F. et al. 2018).

Work stress has a relationship with work fatigue, with a moderate correlation strength value or  $r$  value = 0.538, which means work stress and work fatigue have a positive or unidirectional relationship, which means that if the higher work stress experienced by farmers, they will experience work fatigue (Ningrum et al., 2022). Crop failure is one of the factors causing stress to farmers, where farmers complain or show signs of stress, such as nausea, headache, vomiting, digestive disorders, and skin disorders. Farmers also have psychological complaints, including farmers who experience unstable emotions, get angry more quickly, and experience back pain, fatigue, and sleep disturbances (Septiani et al., 2020). Some farmers show psychological conditions due to crop failure, such as experiencing trauma, anxiety, depression, psyche, and disappointment (Fitria et al., 2022)

To deal with or overcome stress, farmers carry out various methods of stress management or coping with stress in their way in managing their emotions or psychology, for example, by getting closer to God (praying), telling stories ( sharing ) to friends or family or crying (Fitria, 2022). There are also those who have prepared far in advance so that crop failures that occur are minimal and do not cause high losses, including preparing fertilizer, predicting the weather, and hiring farm laborers to help during the sugarcane planting period. Also, immediately repair sugarcane plants when damaged, which can be caused by strong winds or pests (Azmi et al., 2023). The adaptation strategy is carried out by poor farming families in rural Madura to deal with stress from the COVID-19 pandemic, namely by building group solidarity according to developing values and norms: cooperation, helping each other in the form of sharing food or basic needs, reciprocity labor services/work bartering, usually of a personal nature and in a productive and helpful field (Sabariman, H. 2021).

A sense of mutual care, mutual help, and establishing good relationships among people are family values and indicators of dealing with pandemic stress on farmers. Some do side jobs and take advantage of relationships or networks (Sofian et al., 2017) to deal with post-harvest stress because crop failure inevitably causes losses to farmers, one of which is economic loss and salt farmers carry out a moral economic survival mechanism for farmers using the theory of James C. Scott about subsistence ethics. Subsistence needs of farmers to switch professions or find side jobs. However, farmers with a low economy (poor) can create social inequality. In the end, to survive, the farming community depended on the mercy of relatives, brothers, fellow farmers, and neighbors just to eat (Gultom, F. 2021). Psychosocial problems or work stress on farmers arise when they experience losses or demands to be targeted or efficient in their work. If farmers experience work stress, they can perform relaxation and distraction techniques in the form of deep breathing exercises or listening to music that can calm the body and reduce the stress they experience (Ningrum, 2022).

## CONCLUSION

Farmers who work in agriculture have many economic and psychosocial risks. Among other things, farmers can risk experiencing crop failure, which can cause various things, such as economic decline and psychosocial problems. Therefore, farmers must know how to deal with crop failure, how to prevent it, and how to cope with stress during crop failure as a first step to dealing with the risk of psychosocial disturbances in farmers due to crop failure. In this case, nurses provide information and education to farmers to prevent psychosocial disorders due to crop failure.

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