

## An Overview of Stress Levels on Fishermen on The Payangan Coastal Jember

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### ABSTRACT

Indonesia is a country known as a maritime country whose majority of the population works as fishermen. Most of Indonesia's territory is dominated by water areas and is dominated by fisheries and marine activities so many workers work in the fisheries and marine sector. Fisherman workers have different challenges and problems from other workers. This research, which was conducted on the Payangan coastal of Jember Regency, purpose to describe the level of Stress on fishermen in the Payangan coastal area of Jember Regency. The data collection method used in this study used a questionnaire distribution method with fishermen by asking questions about Stress levels using the PSS (Perceived Stress Scale) questionnaire consisting of 10 question items. The number of respondents in this study were 74 fishermen who live in the coastal area of Payangan Beach, Jember Regency and meet the criteria determined by the researcher. The results of this study obtained the results of calculations and data analysis showed that as many as 66 respondents 89.19% experienced moderate Stress levels and as many as 8 respondents 10.81% experienced severe Stress levels. This research is expected to help describe the level of stress on fishermen workers in the coastal area of Payangan, Jember Regency. Moderate Stress will usually last longer than mild Stress, and can occur due to unresolved matters, especially matters related to fishing workers. From this statement, the researcher assumes that social and family support is very important to overcome the moderate Stress experienced by fishermen workers.

Keywords: stress; fisherman; coastal area

### INTRODUCTION

The Unitary State of the Republic of Indonesia ranks second among 198 countries and 55 regions of the world in terms of coastline length after Canada, so it is called a maritime country (The World Factbook, 2016). In addition, Indonesia is also a country with the largest number of islands in the world so that it has abundant resources in the field of waters and marine affairs which is very large, from this potential it shows that the State of Indonesia has great wealth in marine and fishery resources. At least about 60 percent of Indonesia's population lives and activities within a radius of 50 kilometers from the coast, where these people work from various livelihoods including fishermen (Saad, 2009). Another study also revealed that almost 65 percent of the population in Indonesia live and live around coastal and marine areas (Dahuri, et al 2001).

Fishermen are individuals or groups whose source of livelihood is fishing and marine products. Then fishermen are also divided into several types, such as small fishermen, full fishermen, main part-time fishermen and additional part-time fishermen. Small fishermen search for fish and marine products to meet their daily needs by using fishing vessels with a maximum size of 5 gross tons. Full-time fishermen are used to catch fish and other marine products. While the main part-time fishermen are fishermen who spend most of their time catching fish or other marine products, besides that, this type of fisherman also has other jobs. And additional part-time fishermen are fishermen who spend a small part of their time catching fish and other marine products (Statistica of marine and coastal resources, 2016).

There is no doubt that Indonesia's territorial waters have abundant and large marine wealth. Even though Indonesia is a fairly large maritime country and the modernization of the world of fisheries in Indonesia has been going on for quite a long time, when looking at the reality in coastal communities, it still shows that modern fishing communities have not been fully realized. Because when we look at the actual conditions in the field, there are a lot of fishermen who

still use fishing gear and simple boats and inaccurate weather predictions that show marine climate conditions (Rubiono et al., 2020).

Bad natural conditions accompanied by signs such as storms or lightning, heavy rain, strong winds and fairly large waves of course make it difficult for fishermen to go to sea until the weather is clear and normal. Bad weather conditions for fishermen who are starting to get restless with their income, especially to meet their daily needs due to lack of income from fishing, although in each area the government usually has provided assistance funds for fishermen during famine conditions or bad season conditions for coastal fishermen. not necessarily sufficient for the daily needs of fishermen. The activities of fishermen during bad weather are very diverse, some fishermen do side business during bad sea seasons to increase fishermen's income a little for the survival of fishermen's families (Fendiawan, 2020). Despite the fact that many fishermen are still determined to sail during bad weather conditions due to family and economic demands, there are some fishermen who choose to develop their skills and use their time to repair their damaged boats and check their sailing equipment which needs to be repaired as an adaptation to their coping at times. failed to catch while waiting for weather conditions to return to normal (Falahi, 2020)

According to Acheson (1981) stated that the problems experienced by fishermen are not only related to the environment, such as the sea with great risk and uncertainty of big waves, rainstorms accompanied by strong winds and other various biotic problems. In addition, it concerns social issues, concerning competition between fishermen both individually and in groups. The struggle for fishing operation areas even though the sea is a shared and open natural resource, but there are aspects that show the lives of fishermen, especially fishermen who are less prosperous due to the economic uncertainty they are experiencing. According to Sarafini in Nuraini (2016) if a person experiences stress due to life pressure problems such as that experienced by the life of fisherman workers, the body will show several psychological responses to the stress faced, resulting in several disorders such as cognition, emotion, and social behavior. Disturbed cognition, especially in fishing workers, will result in memory paralysis, this happens because of the pressure experienced by fishermen due to continuous pressure which results in more severe stress conditions. When the disturbed emotions.

## METHOD

This research is also a quantitative research where all the data is analyzed using statistics and using numbers (Sugiyono, 2016). The main purpose of this study was to find out how the description of the level of stress that occurs and is experienced by fisherman workers in the Payangan Coastal area, Jember Regency. This research was started after conducting ethical testing and obtaining an ethical license with letter number NO. 127/UN25.1.14/KEPK/2021 and submitting a research permit letter to the agencies of the Faculty of Nursing UNEJ, LP2M, Social Service Office of East Java Province, which was addressed to Payangan coastal of Jember Regency.

The population in this study is a group or collection of subjects who have characteristics that match the criteria that have been set by the researcher in advance (Nursalam, 2015). The population used in this study were 315 fishermen in the Payangan Beach area, Jember Regency. The sample used is active fishermen in the coastal area of Payangan Beach, Jember Regency. The number of samples used in this study were 74 fishermen. This research technique uses a non-probability sampling method with a purposive sampling approach.

The source of the data used is primary data taken with the PSS (Perceived Stress Scale) questionnaire. In this study, the data on the number of fishermen workers in the Payangan Coastal area of Jember. Meanwhile, secondary data was obtained through collecting data/information from other parties or agencies, namely the Department of Fisheries and Marine Affairs, Jember Regency.

The data collection technique used in this research is by distributing questionnaires to research respondents. The filling of the questionnaire was supervised directly by the researcher. Before filling out the questionnaire, the researcher applied for several permits first. The researcher re-checked the questionnaire that had been filled in by the respondent. If there are questions that have not been filled in and have not been understood, the researcher will directly assist in the data collection process.

Data analysis with univariate analysis. This study uses descriptive analysis which is an activity or data processing procedure by describing and concluding information from scientific research data in the form of tables and sentences. This research was conducted in accordance with research ethics which includes informed consent, confidentiality, justice, beneficency, and safety.

**RESULT**

**Description of the characteristics of fishermen on the coast of Payangan, Jember Regency.**

The results of the univariate analysis were divided into each respondent's characteristics in the form of age, length of work, gender, marital status, and last education. The mean age value is 46 years with a standard deviation of 13.48. Most of the respondents were male (100%).

Table 1. Description of the characteristics of fishermen on the Payangan coast, Jember Regency (August 2021, n=74)

Variable	n (%)
Age (years)	
M ± SD	46(± 13.48)
Gender	
Man	74 (100)
Last Education	
No school	16 (21.6)
Elementary school	39 (52.7)
Junior high school	17 (2.3)
Senior high school	2 (27)
College	0 (0)
Marital status	
Marry	72 (97.3)
Widow/widower	2 (2.7)
Not married	0 (0)

**The level of stress experienced by fishermen in the coastal area of Payangan**

The results of the study were grouped into mild stress, stress while severe stress. Based on table 2 describing the stress level of fishermen, the results show that overall the respondents, amounting to 74 people, obtained the results of moderate stress levels showing a frequency value of 66 respondents (89.19%), severe stress levels 8 respondents (10.81%).

Table 2. Stress scores on fishermen in the Payangan coastal area (August 2021; n:74)

Stress Level Variable	Frequency	Percentage (%)
Mild Stress	0	0
Moderate Stress	66	89.19
Severe Stress	8	10.81
Total	74	100.0

**DISCUSSION**

**Characteristics of Payangan beach fishermen respondents**

The results of this study show that fishermen in the Payangan coastal area of Jember Regency show an average age of 46 years. According to the Ministry of Health (2009), the age range of 46-55 years is included in the adult age category. As a person gets older, they have the potential to experience a decrease in health functions related to experience and maturity in coping mechanisms in life (Lestari, 2019; Harianto et al., 2021). Fishermen who fall into the category of late adulthood and the elderly tend to have the potential to experience stress and a decrease in health quality which can increase the workload that the fishermen think of. This statement is also supported by the opinion of Robbins & Judge (2013) which states that a person's performance will decline with increasing age because the energy they have is not as strong as when they were young. Researchers argue that increasing a person's age can trigger the emergence of stress which has the potential to decrease the quality of health, if the health of fishermen decreases it will have an impact on the work productivity of fishermen.

This study shows that fishermen in the Payangan coastal area of Jember Regency show at least 3 years of service for fishermen and the longest working period of 60 years with an average working period of 23 years. Job stress when viewed from the duration or length of work of fishermen is dominated by the length of work aged 15 - 20 years. The

length of work determines a person's stress according to Umami (2014) on workers who have worked for more than 10 years at high risk of experiencing health problems. supported by other studies which reveal that the tenure is very influential on job stress (Trisnawati, 2002). Researchers assume that the length of work has the potential to affect the quality of one's health. If fishermen work for a long period of time and are not accompanied by a good lifestyle such as adequate rest, nutritious food and exercise, the length of time a person works will reduce the health quality of fishermen workers. If the health quality of fishermen decreases, it will affect fishermen's income which can trigger stress on fishermen.

Gender in this study were 74 respondents and 100% male. Stress in men also has a high risk if the male worker is exposed to various stressors that attack especially if the man is not able to respond well to the attacking stressor. This is in line with the research of Pathmanathan (2013) which found that men experienced more stress (6.1%) compared to women who only (2.0%). Other studies reveal that men need a longer time to recover after conditions or stressors that occur compared to women, so it can be said that stress levels in men are higher (Ambarwati, et al. 2017). Researchers assume that male workers are more at risk of stress than women, especially if the individual has a fairly high workload. Male fishermen who work in the sea are at risk of experiencing high stress. If the fisherman has a family, the risk of stress will be higher because men tend to be leaders in the family who have to support and provide for their children and wives so that male workers in fishermen have a high risk of experiencing stress.

The results of the latest education of respondents in this study obtained as many as 16 respondents (21.6%) did not go to school, 39 respondents (52.7%) graduated from elementary school, 17 respondents (2.3%) graduated from junior high school, and 2 respondents (2,7) graduated from high school. Education is a very important thing in a person's life, according to Utami Research (2019) when talking about poverty in Indonesia, one of the vulnerable groups of people is the fishing community who live and work along the coast of Indonesia as a source of income. fishermen and poverty can prevent fishermen from receiving adequate education, therefore the motivation to get out of the poverty cycle has not been a priority for fishermen (Riski and Hajad, 2021). Education is an important factor to describe a person's skills and abilities, supported by Lestari's research (2019) if the higher the education, the potential to increase knowledge and information. The research above also agrees with the Haikal statement (2020) which explains that the high level of a person's education will greatly affect the knowledge possessed by each individual and vice versa if education is low, individuals tend to underestimate health conditions because knowledge related to contraception.

### **Description of Stress Levels on Fishermen on the Payangan Coast of Jember Regency.**

The results of this study found that most of the fishermen on the coast of Payangan Beach according to the division of Charles (2006) into the category of commercial fishermen (commercial/sport fishers) where most of the fishermen catch fish which are then resold either in the local market or in the export market both in domestic and foreign markets. small or large quantities. The results of this study were fishermen on the coast of Payangan Beach, Jember Regency, 66 respondents with a percentage of 89.19% experienced moderate stress measured using the PSS (Perceived Stress scale) questionnaire. According to Sabir (2018), moderate stress tends to be experienced longer, this stressor can bring up several symptoms such as emotional, reacting inappropriately, irritability and many other symptoms. Fishermen who experience stress will show some symptoms such as psychological symptoms which can also be felt such as difficulty calming down, getting angry and restless and easily offended by other people. It can be seen from the results of the study that it can be illustrated that fishermen who work on the Payangan coast of Jember Regency experience moderate stress in doing their job looking for fish. According to Sabir (2018), severe stress is a chronic condition that can be experienced within a period of several weeks or even several years. These stressors cause symptoms such as feeling negative, lack of enthusiasm in carrying out daily activities, easily sad and depressed, losing enthusiasm and feeling meaningless which in a certain period of time will result in a decrease in one's energy and adaptive response.

Researchers assume that the age of fisherman workers can be a measure of the strength of fishermen when fishermen work, the older the age of the fishermen will experience a decrease in strength so as to create a lack of productivity in fishermen which can trigger stress on fishermen, the length of work on fishermen also has the potential to affect the stress experienced by fishermen, gender has an impact on the level of stress that occurs in fisherman workers. The last education possessed by fishermen also determines the level of stress experienced by fishermen, the lower the education possessed by fishermen, the greater the potential for stress experienced by fishermen because low education makes fisherman workers less adaptive to any stressors that attack. According to researchers, marital status has the potential to have an influence on stress levels in fisherman workers because fisherman workers really need support and a support system from their families to help fisherman's work, although support is not only from family but family support is quite helpful in increasing morale in fisherman workers which can increase quality of health and reduce the impact of stress on fishermen. The description of the level of stress that occurs in the Payangan coastal area, Jember Regency,

shows that the results of moderate stress are 66 respondents, 89.19%. According to Priyoto (2014), moderate stress will usually last longer than mild stress, and can occur due to unresolved things either with family members, due to illness or long periods of not being able to meet. The results of this study also showed that 8 respondents with a percentage of 10.81% experienced severe stress. According to Sabir (2018) Severe stress is a chronic condition that can be experienced within a few weeks or even years. From this statement, the researcher assumes that social and family support is very important to overcome moderate stress experienced by fishermen workers. According to Priyoto's research (2014), social support can reduce anxiety which can be an indicator of the emergence of stress in fishermen. According to Sabir (2018), heavy stress usually occurs in fishermen who are chronically stressed.

The stress that occurs to fishermen in the Payangan coastal area, Jember Regency consists of many factors. From the results of the preliminary study of this research, it was found that the factors that cause stress to fishermen include income factors. The lack of income factors makes fishermen unable to meet the daily needs of the family. The second factor is natural factors, unpredictable weather conditions coupled with the lack of fishing gear are things that can potentially trigger stress on fishermen due to natural conditions and sea breezes that can change at any time. The third factor is the factor of competition in the field of fishing between fishermen. Although the sea is a shared area belonging to Indonesian citizens, in reality in the field there is still a lot of competition in the fishing area, which makes fishermen have to be quick and alert in determining their territory.

### CONCLUSION

Based on the results and discussion found in the research above, it can be concluded that respondents to fishermen in the Payangan Coastal area, Jember Regency are dominated by male workers from 74 respondents 100% male with an average age of 46 years and an average length of time. 23 years of work. The results of this study also found that of the 74 research respondents 21.6% did not attend school, 52.7% graduated from elementary school. 2.3% graduated from junior high school and 2.7% graduated from high school. For marital status, 97.3% are married and 2.7% are widows/widowers. The results of this study also showed that from all research respondents, 89.19% of fishermen experienced moderate stress and 10.81% of fishermen experienced severe stress. Stress that is not handled properly can have a negative impact on the health of fishermen and exacerbate stress levels that occur in fisherman workers in the Payangan Beach area, Jember Regency.

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