

HEALTH COMPLAINTS AMONG FISHERMEN AT THE FISHING PORT OF BANTEN PROVINCE

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Abstract

Fishermen are a group of coastal communities and belong to a community that are still underdeveloped and in a marginalized position. Most fishermen live their daily lives and activities traditionally. The daily activities of fishermen and exposure to environmental factors cause fishermen to be at risk of various health problems, including dermatitis, complaints of pain in the lower back, hearing loss, visual impairment and complaints of barotrauma. This study aims to determine the description of complaints of health problems in fishermen. This research was conducted at the Port in the working area of Health Quarantine Center Region 1 of the Ministry of Health of Banten Province. The method used for data collection in this study used a descriptive approach with questionnaire instruments and interview methods. The research respondents were 96 fishermen who were taken based on the calculation of the Slovin formula. Sample determination based on *accidental* techniques. The results showed that more than 50% of respondents stated that they experienced health problems. Dermatitis complaints were 69.8%, Low Back Pain was 59.4%, hearing loss was 63.5%, visual impairment was 67.7%, and barotrauma complaints were 68.8%. These health complaints are felt by most fishermen and are thought to be caused by environmental factors, work positions and personal factors. Based on the results of the study, it is recommended to improve and develop cooperation with related units in terms of special health checks for fishermen.

Keywords: Dermatitis Complaints, Fisherman, Hearing Loss, Low Back Pain

Introduction

Fishermen are a group of coastal communities and include communities that are still underdeveloped and in a marginal position. As a marginalized group, there are not many dimensions of life known to outsiders. Fishermen have different views related to knowledge, cultural values, beliefs, social institutions and have a different social structure from other community groups. Most fishermen live their daily lives and activities traditionally. As a coastal community, fishermen do not have many ways to overcome the problems present¹. In terms of socioeconomic status, fishermen are relatively lagging behind when compared to other community groups. The socio-economic condition of fishermen is greatly influenced by fishermen's income. Coastal conditions, technology used in fishing, weather/natural conditions, age, education and level of fishermen's knowledge are very significant to fishermen's income². This factor is one of the reasons why the socio-economic and welfare of fishermen is relatively low.

Fishermen in various regions are generally characterized by several characteristics, such as

poverty, socio-cultural underdevelopment, and low human resources (HR). This condition is more because most fishermen only graduated from elementary school or have not graduated from elementary school, and the weak function of the existence of Joint Business Groups (KUB), Microfinance Institutions (MFIs), or the capacity of community organizations³. In addition, fishermen also have limited access to education and health services.

Research data states that fishermen are at high risk of experiencing various health problems and experiencing work accident problems. As many as 95% of fishermen are exposed to occupational hazards, 85% of fishermen are reported to experience accidents while working. Ergonomic hazards, physical hazards, and hazards originating from the environment and climate are the dominant hazard factors for fishermen. Muscle tension, musculoskeletal disorders complaints are the most common complaints experienced by fishermen^{4,5}. In addition to exposure to occupational hazards, ergonomics and other physical hazards, fishermen are also vulnerable to other health problems. Skin disease is one of the diseases that is often suffered by fishermen. This disease is caused by *poor personal hygiene* and low sanitation of the fishermen's environment. Another factor that is also the cause of skin diseases in fishermen is the concentration of seawater which affects the skin and has primary irritating properties that can cause chronic dermatitis. Skin diseases may also be caused by fungi or marine life and other factors. Fishermen have wet jobs so that it is a place for diseases or skin disorders such as fungi to develop. The skin is the organ of the body that most often experiences abnormalities due to a person's work, which is 50% of the total number of people suffering from Occupational Diseases (PAK). Research shows that 80% of fishermen experience complaints of skin disorders⁶.

Fishermen's work activities are at risk of causing *Musculoskeletal Disorders* (MSDs). This risk occurs due to activities that are carried out repeatedly and continuously for a long period of time, such as throwing nets when fishing in the sea or loading and unloading fishing results that are carried out manually⁷. Fishermen who experience complaints of *Musculoskeletal Disorders* (MSDs) in the high risk category were recorded at 60%⁸. Considering that fishermen in their activities still rely on traditional equipment, natural conditions, the environment and environmental sanitation that do not meet health standards and various other factors cause fishermen to be very vulnerable to various other health problems.

Banten Province is one of the provinces in Indonesia located in the western part of Java Island. As a connecting province between Java and Sumatra, Banten Province is one of the provinces with the largest port in Indonesia. Demographically, Banten Province is also located near the Sunda Strait which is a national and international trade route of the Indonesian Archipelago Sea Route (ALKI) making the position of the Banten Province area very strategic. In addition, Banten Province is located at the western end of Java Island (directly adjacent to the National Capital Region, DKI Jakarta) thus adding to the geostrategic position of Banten Province as the gateway to the Java and Sumatra trade routes to an important part of Asian and International trade circulation.

As one of the provinces bordered by water areas, Banten Province has 21 fishing ports and 32 fish auction⁹. The Karangantu Fishing Port is one of the largest fishing port in Banten Province¹⁰. Besides being the center of the fish auction, Karangantu Harbor is also a tourist destination that is visited by many local tourists. As the largest fishing port in Banten Province, the majority of the residents' jobs around Karangantu Port are fishermen. Various researches related to the health condition of fishermen in Karangantu Port have been carried out a lot, but it is still limited to skin health disorders and the factors that affect them. This research raises the theme of health problems experienced by fishermen, not only photographing and describing skin health disorders but also identifying health complaints experienced by fishermen. This theme is different from previous studies.

Method

The type of research used in this study is observational research to describe and identify health complaints felt by fishermen at the Health Quarantine Center Region 1 of the Ministry of Health of Banten Province. The method used for data collection in this study is by using questionnaires and interview methods. This research was carried out at the Health Quarantine Center Region 1 of the Ministry of Health of Banten Province which includes the areas of Kasemen Port, Bojonegara Port, Anyer Port and Labuan Port. The research was carried out in January - June 2024. The population of this study is all fishermen in the Working Area of the Health Quarantine Center Region I of the Ministry of Health of Banten Province as many as 1,900 people. The sample in this study was calculated based on the calculation of the Slovin formula of 96 respondents and *proportional sampling*.

The data needed in this study consists of primary data and secondary data. Primary data was obtained by interviewing respondents directly. Secondary data was obtained from the profile of the Health Quarantine Center Region 1 of the Ministry of Health of Banten Province. Data collection uses a questionnaire containing the identity of the respondents and the variables of fishermen's health complaints. After the expected data is collected, data processing is carried out in stages *editing, coding, entry, cleaning* and *tabulating*¹¹. The collected data was analyzed univariably to describe the health problems experienced by fishermen. The data is displayed in the form of a frequency distribution tabulation.

Result

Based on the results of the study, it is known that the characteristics of respondents and data on fishermen's health complaints are as follows:

1. Characteristics Responden

Table 1. Characteristics of Respondents

Variable	Frequency	Percentage (%)
Education Level		
- Low	83	86,5%
- High	13	13,5%
Age		
- At Risk	47	49%
- Not at risk	49	51%
Length of working		
- Old	47	49%
- New	49	51%
Gender		
- Male	85	88,5%
- Female	11	11,5%
Total	96	100%

Source: Primary Data, 2024

2. Health Complaints

Fishermen's health complaints are known based on the results of interviews using questionnaires. The questionnaire contains questions that explore the complaints felt by fishermen both before carrying out activities, during activities and when fishermen rest. The following are the results of the research on respondents' health complaints:

Table 2. Overview of Respondent's Health Complaints

Health complaints	Frequency (n)	Percentage (%)
Dermatitis		
- There is complaints	67	69,8%
- No complaints	29	30,2%
<i>Low Back Pain</i>		
- There is complaints	57	59,4%
- No complaints	39	40,6%
Hearing Loss		
- There is complaints	61	63,5%
- No complaints	35	36,5%
Vision Impairment		
- There is complaints	65	67,7 %
- No complaints	31	32,3 %
Barotrauma Complaints		
- There is complaints	66	68,8%
- No complaints	30	31,3%
Total	96	100 %

Source: Primary Data, 2024

Based on the results of the study in table. 2, it is known that most of the respondents felt complaints of health problems in all the variables studied.

Discussion

1. Characteristics Responden

Based on the results of the study, it is known that the level of education of fishermen is mostly low-educated, namely elementary schools and junior high schools. Fisherman's education is dominated by elementary school graduates while fishermen who have a high school education level of 13%. The age of fishermen is categorized as risky if the fisherman is more than or equal to 42 years old and not at risk if the fisherman's age is less than 42 years. The proportion of fishermen's age between those at risk and those who are not at risk is almost the same. Respondents have been working as fishermen since the age of 18 and there are even fishermen who have started learning to go to sea since elementary school age.

After conducting interviews and the data collection process, it was found that the average respondent had been a fisherman for 21 years, and there were even fishermen who had been at sea for 25 years when they were 18 years old. Fishermen are not always synonymous with men. There are around 11% of fishermen who are female. They help the husband's activities in collecting fish catches, drying fish that will be used as salted fish and occasionally repairing damaged nets.

2. Health Problems in Fishermen

Dermatitis is a skin disease that is accompanied by subjective symptoms in the form of itching, and is objectively characterized by patches, rashes, and inflammation. Symptoms are reddish discoloration due to dilated blood vessels, swelling and bruising due to fluid buildup in tissues, thickening or scratching of the skin, and skin discoloration. The impact of dermatitis depends on the immune system of the sufferer. A person's reaction can have a different impact than another person's reaction, even though the cause is the same. There are various factors that cause dermatitis^{12,13}.

Based on the results of a study on fishermen at Perikakanan Port, Banten Province, most (70%) of respondents had complaints of dermatitis. Dermatitis complaints are characterized by symptoms of dryness and scaling, a reddish rash, itchy and blistered skin, a wet and reddish rash, and hot skin. The results of the study found that the most common complaints of dermatitis were complaints of dry and scaly skin, itchy and blistered skin and 27% of fishermen experienced complaints of redness rash and hot skin.

Dermatitis in fishermen is caused by various factors, including the condition of seawater that contains high salt so that it causes the skin to become irritated. Fishermen's personal hygiene factors also have the potential to cause dermatitis in fishermen¹³. In general, fishermen have low personal hygiene. During the sea, fishermen do not bring enough clean water. Clean water is only used to wash your face when you want to pray. Toilet bathing activities (MCK) are carried out on board using seawater for toilet activities. The existence of hand soap on ships is also a problem. Fishermen who do not change their clothes while on the boat while going to sea are activities that cause a lot of sweating and exposure to the heat of the sun.

Exposure to sunlight during fishermen's activities at sea is also a risk factor for dermatitis. Even more than that, sunlight contains UV rays that can cause skin irritation and skin cancer¹⁴⁻¹⁶. Prevention of dermatitis can be done by using *sunscreen* and the use of personal protective equipment in the form of hats, glasses and work clothes that can reduce sun exposure^{13,17}. However, the main need, which is to earn a living to meet the needs of the family, is something that must be prioritized over the use of *sunscreen*¹⁷.

Low back pain is a musculoskeletal disorder caused by a lack of physical activity. *Low Back Pain* is pain that is felt in the lower back area, it can be in the form of local pain or radicular pain or both. This pain is felt between the corners of the lower ribs to the lower buttocks, namely in the lumbar or lumbosacral area and is often accompanied by the spread of pain to the legs and legs¹⁸. The incidence of *Low Back Pain* (LBP) in fishermen is quite high. Various studies have stated that 33% of fishermen experience Carpal Tunnel Syndrome, 27% experience severe levels of LBP, more than 50% experience frequent levels of LBP complaints^{19,20}. Based on the results of research on fishermen at Pertiklanan Port, Banten Province, the results of 96 respondents were obtained that 57 (59.4%) more respondents had *Low Back Pain* (LBP) complaints. Meanwhile, respondents who did not have *Low Back Pain* (LBP) complaints were 39 (40.6%) respondents. After conducting interviews and data collection processes, it was found that the average respondent felt back pain while working and doing work activities, which was as many as 50% of respondents, and there were even 40% of fishermen who experienced back pain while resting. There are around 37% of fishermen who feel stiffness in the lower back. These complaints occurred because the average fisherman did not pay attention to how to lift goods that were overweight.

Based on the results of the study, many fishermen complain of pain in parts of the body, especially the lower back, which is caused by several factors such as the working posture of the fishermen who are hunched over, age and lack of exercise. To relieve the pain that exists with a history of pain in the joint area and even a history of *low back pain*, you can consume milk to help prevent bone loss.

Hearing loss is a term that is often used to describe hearing loss in one or both ears²¹. Hearing loss is different from deafness. Hearing loss means the loss of hearing in one or both ears. The rate of hearing loss decline is divided into mild, moderate, moderate, severe, and very severe. Based on the results of a study on fishermen at Fishing Port, Banten Province, the results were obtained that most (63.5%) of respondents had complaints of hearing loss. Complaints of hearing loss on average felt ringing in the ears (Tinnitus) as many as 47% of respondents, in fact there were 27% of fishermen who experienced voices or words that sounded soft, had difficulty hearing other people's words and misunderstood what was meant, especially when in a crowd and heard if the voice was high-pitched. There are about 23% of fishermen who often ask others to repeat the conversation, speak more clearly,

slowly or loudly. These complaints occur because the average fisherman is exposed to the noise of noisy engines from boats every day for many years.

Vision impairment is a condition that reduces a person's ability to see clearly. This can include refractive problems such as myopia (nearsightedness) and hypermetropia (farsightedness), as well as other conditions such as cataracts, glaucoma, and macular degeneration. This disorder can affect the quality of life and the ability of individuals to carry out daily activities, especially in respondents who experience eye disorders in the moderate to severe category²². The results of the study found data that more than fifty percent (50%) of respondents stated that they had complaints of visual impairment. The average complaints felt were difficulty seeing distant or close objects, experiencing blurred or blurred vision, sensitivity to bright light, and irritated red eyes, or inflammation. Fishermen are at greater risk of visual impairment. This is due to continuous exposure to UV rays of sunlight while working. Over a long period of time, exposure to the sun's rays causes cataracts. Moreover, fishermen do not use protective equipment such as glasses, umbrellas, hats or other eye protection^{23,24}. Observations in the field found that not all fishermen used eye protection. The use of glasses or hats is still limited to some fishermen, especially those who have experienced complaints of visual impairment.

Barotrauma is an injury caused by a sudden change in pressure, which often occurs during diving. These complaints are usually related to the body's inability to regulate pressure quickly, causing pain or damage to body structures, such as the ears, sinuses, or lungs. Symptoms of barotrauma can include ear pain, hearing loss, and even injury to the lungs in the event of extreme changes in pressure²⁵.

Barotrauma complaints felt by fishermen are characterized by dizziness, ringing in the ears and vertigo. Barotrauma can occur due to failure of the ear, and is most common due to the failure of the middle ear to equalize pressure and environment. Barotrauma is a significant risk for fishermen, this condition can occur when fishermen ascend or descend from depth, especially if they are unable to properly regulate the pressure in their bodies. In this study, the incidence of barotrauma in traditional fishermen is in the high category (60%) and this is in line with previous research²⁶. In general, complaints of barotrauma occur in fishermen who dive to ensure that the nets used to catch fish are properly attached. Risk factors for the occurrence of barotrauma in fishermen include knowledge, age, length of diving, and frequency of diving. The older they get, the longer the diving activity and the more often they dive, the higher the potential for fishermen to experience barotrauma. And this potential risk will increase if fishermen have less knowledge and diving activities are not accompanied by the correct use of ear protection²⁶⁻²⁸.

Conclusion

Based on the results of the study, it was concluded that traditional fishermen have the potential to experience health complaints of dermatitis, low back pain (*LBP*), visual impairment, hearing loss and barotrauma complaints. These health complaints are felt by most fishermen and are estimated to be caused by environmental factors, work positions and personal factors.

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