



## ANALYSIS OF RISK FACTORS FOR THE INCIDENCE OF DERMATITIS

Heramuliati<sup>1\*</sup>, Asnawi Abdullah<sup>2</sup>, Nurjannah<sup>3</sup>, Maifrizar<sup>4</sup>

<sup>1</sup>Pidie District Health Service. Jl. Prof. A. Majid Ibrahim No. KM. 114, Pulo Pisang, Pidie, Pidie Regency, Aceh 24164, Indonesia

<sup>2</sup>University of Muhammadiyah Aceh. Jl. Muhammadiyah No.91, Batoh, Lueng Bata, Banda Aceh, Aceh 23123, Indonesia

<sup>3</sup>University Syiah Kuala, Jln. Teuku Nyak Arief Darussalam, Banda Aceh, Aceh, 23111 Indonesia

<sup>4</sup>Jabal Ghafur College of Health Sciences, Sigli, Jln.Lingkar Keunire, Pidie Regency, 24151, Indonesia

\*heramuliati.04@gmail.com

### ABSTRACT

In the initial survey, it was discovered that most of the fishermen from Kembang Tanjong sub-district and Simpang Tiga sub-district were traditional fishermen and used very little personal protective equipment, which made it possible for dermatitis to occur in fishermen. They stated that using personal protective equipment such as gloves, shoes and head coverings could hinder movement. When they work, personal hygiene is also given less attention due to the habit of fishermen spending the night in the middle of the sea when fishing, so fishermen do not prioritize their personal hygiene. The purpose of this study is to determine the analysis of risk factors for the incidence of dermatitis in fishermen on the coast of Kembang Tanjong District and Simpang Tiga District, Pidie Regency. This type of research is descriptive analytic using a cross sectional design. The population and sample in this study were all research subjects and objects studied, namely 298 fishermen. Data analysis in this study was univariate, bivariate and multivariate. The results of the study showed that there were five variables that had a relationship with the incidence of dermatitis in fishermen, namely personal hygiene (P-value 0.000), knowledge (P-value 0.000), use of PPE (P-value 0.000), education (p-value 0.007) and history of allergies (P-value 0.000) and for variables that do not have a significant relationship, namely the role of health workers (p-value 0.760) and length of service (pvalue 0.60. Conclusion: It is hoped that the results of this research can be used as input to improve health promotion by providing education to fishermen and other communities about dermatitis in the Kembang Tanjong and Simpang Tiga sub-districts in order to raise awareness among fishermen and other communities to make efforts to prevent dermatitis such as personal hygiene and use of PPE while working.

Keywords: dermatitis; fishermen; risk

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## INTRODUCTION

Indonesia is a maritime country where most of its territory consists of waters. Several facts show that 2/3 of Indonesia's territory is water, Indonesia's coastline is the second longest after Canada, reaching 18,000 km<sup>2</sup>, and the largest diversity of marine biota in the world. Water areas are the activities of fishermen, namely where people work every day to catch fish and other marine biota (Anggraini, 2021). Indonesian people who live on the coast have a unique living environment that is different from city areas. In general, fishing communities live on the coast, with residential areas close to the activity location (Riry et al., 2022). Every job a person undertakes definitely has risks that must be faced, including fishing jobs such as fishermen. The risks found can usually be in the form of health problems that arise due to work or work accidents (Riry et al., 2022). Since 1982, dermatitis has been one of the top 10 occupational diseases (Pakaya et al.) based on potential incidence, severity, and ability to be prevented. The United States Bureau of Statistics (1988) states that skin diseases account for around 24% of all reported CAD. The National Institute of Occupation Safety Hazards

(NIOSH) in its annual survey (1975) estimates that the actual incidence of occupational dermatitis is 20-50 times higher than the cases that have been reported. DKA can be suffered by people who have previously been sensitized by allergens of various age groups, race and gender. DKA is more often found at ages 41-60 years (AMELIANA, 2022).

Dermatitis in fishermen may be the result of sea water which, due to its density, draws water from the skin, in this case sea water is the cause of chronic skin dermatitis with primary stimulation properties (Sirait & Samura, 2021). Skin diseases may also be caused by fungi or sea animals. Wet work is a place for the development of fungal diseases, for example monoliasis. Dermatitis can cause allergies, skin irritation, skin hypersensitivity, and also eczema (Abbas & Hikmah, 2018). Fishermen are a group of people whose livelihoods depend directly on marine products, both in terms of catching and cultivating fish. In general, fishermen live on the coast where their residential environment is close to the location of their work activities (Hendrawan, 2017). In addition, fishermen are a group of informal workers who are included in the category of workers who are at risk of occupational diseases. The risk factors for occupational diseases in fishermen groups are mostly caused by physical work environment factors. The physical environmental factors in question include temperature, humidity and wet conditions which can cause work-related skin diseases (Roestijawati et al., 2017).

Dermatitis skin disease that occurs as a result of work occupies a percentage of 50-60% of all occupational diseases, therefore dermatitis gets proportional attention. Apart from the high prevalence, work-related dermatitis is a disorder found in the arms, hands and fingers which really interferes with sufferers doing their work, thus affecting their work productivity (Suma'mur, 2017). The number of cases of work-related diseases admitted to BPJS (Social Security Administering Agency) for Employment since Indonesia's independence until 2018 was under 30 cases out of a total of 131.5 million workers. The prevalence of skin diseases in the world, among others, is 10% of occupational skin diseases where the symptoms include fever, sudden rash accompanied by intense itching and heat and the body feeling weak. Risk factors related to this are chemical contact, work period, length of exposure, age, gender, knowledge, use of PPE, and personal hygiene. Contact dermatitis is generally caused by external substances that cause inflammation such as chemicals contained in tools used daily such as accessories, cosmetics, topical medicines, metals, and clothing, detergents and work-related materials. such as cement, laundry soap, pesticides, paint, and materials containing other chemicals (Apriliani et al., 2022).

Based on reports from the Kembang Tanjung Health Center, Pidie Regency, the number of dermatitis cases in January was 143, February 244, March 234, April 140, May 242, June 170 and July 145 cases, while the report from the Simpang Tiga Health Center, Pidie Regency, dermatitis cases in January was 143. February 160, March 181, April 153, May 152, June 223 and July 203 cases (Tiga, 2023) Based on data from the Simpang Tiga Health Center in 2023, there were 65 cases of dermatitis in fishermen in June, 75 cases in July and 79 cases in August. Meanwhile, data from the Kembang Tanjung Community Health Center in 2023 for the number of dermatitis cases in fishermen in June was 61 cases, July 65 cases and August 69 cases. Based on the initial survey conducted by researchers, it is known that most of the fishermen from Kembang Tanjung sub-district and Simpang Tiga sub-district are traditional fishermen and use very minimal personal protective equipment, which makes it possible for dermatitis to occur in fishermen. They stated that they use personal protective equipment such as gloves, shoes and head coverings. can restrict movement when they work, as well as

personal hygiene, there is still less attention due to the habit of fishermen spending the night in the middle of the sea when fishing so that fishermen do not prioritize their personal hygiene. Based on the description above, which is supported by primary and secondary data and is in line with previous research. The purpose of this study is to determine the analysis of risk factors for the incidence of dermatitis in fishermen on the coast of Kembang Tanjung District and Simpang Tiga District, Pidie Regency.

**METHOD**

This type of research is descriptive analytic using a cross sectional design. The Cross Sectional research method is research carried out at one time and once, without follow up, to find the relationship between the independent variable and the dependent variable, where data collection for both the independent variable and the dependent variable is carried out simultaneously. This research will be planned for fishermen on the coast of Kembang Tanjung District and Simpang Tiga District, Pidie Regency. The population and sample in this study were all research subjects and objects studied, namely 298 fishermen, the population taken in this study were all fishermen in Simpang Tiga and Kembang Tanjung Districts, Pidie Regency. The data collection method is direct observation in the field looking at personal hygiene, knowledge, education, role of health workers, use of PPE, length of service and history of illness and based on health center medical records. Interviews are a method used to collect data, where researchers obtain information or information verbally from respondents, face to face with that person (face to face). Interviews to obtain data on analysis of risk factors for the incidence of dermatitis among fishermen on the coast of Kembang Tanjung District and Simpang Tiga District. Data Analysis Design, namely the data obtained in research is then processed and analyzed using a computer using the Stata MP-64 application, research analysis produces correct information in at least four stages, namely, editing, coding, entry, tabulating. Data analysis in this research is by means of Univariate analysis, Bivariate analysis and Multivariate analysis

**RESULTS**

Table 1.  
Frequency Distribution of Independent Variables risk factors for the incidence of dermatitis in fishermen on the coast of Kembang Tanjung District and Simpang Tiga District, Pidie Regency

No	Variabel	f	%
<b>Dermatitis</b>			
1	Painless	175	58,72
2	Sick	123	41,28
<b>Personal Hygiene</b>			
1	Good	151	50,67
2	Not good	147	49,33
<b>Knowledge</b>			
1	Good	184	61,74
2	Not good	114	38,26
<b>Age</b>			
1	Productive	232	75,57
2	Not productive	75	24,43
<b>Role of Health Workers</b>			
1	Good	95	31,88
2	Not good	203	68,12
<b>Use of personal protective equipment</b>			
1	Good	125	41,95
2	Not good	173	58,05
<b>Years of service</b>			

1	≥ 8 year	170	57,05
2	< 8 year	128	42,95
Education			
1	Tall	24	8,05
2	Intermediate	238	79,87
3	Low	36	12,08
History of allergies			
1	There isn't any	188	63,09
2	There is	110	39,91

Based on table 1, it can be seen from 298 respondents who suffer from dermatitis disease by 41.28%, personal hygiene of respondents who are not good at 49.33, respondents with poor knowledge by 38.26%, respondents who are not productive at 24.43%, for the role of health workers who are classified as not good at 31.88%, while respondents who use PPE are not good at 58.05%, respondents with a working period of < 8 years by 42.95%, the basic education level of respondents was 12.08, while for respondents who had an allergic history of 36.91%.

Table 2.  
Factors Associated with the incidence of dermatitis in fishermen on the coast of Kembang  
Tanjong District and Simpang Tiga District, Pidie Regency

Variabel Independen	Dermatitis				OR	P-Value
	No		Yes			
	f	%	f	%		
Personal Hygiene						
Good	124	82,12	27	17,88	8,6	0,000
Not good	51	34,69	96	65,31		
Knowledge						
Good	124	67,39	60	32,61	2,5	0,000
Not good	51	44,74	63	55,26		
Role of Health Workers						
Good	57	60	38	40	1,0	0,760
Not good	118	58,13	85	41,87		
Use of personal protective equipment						
Good	91	72,80	34	27,20	2,8	0,000
Not good	84	48,55	89	51,45		
Total	175	100	123	100		

Table 2, it shows that respondents who did not experience dermatitis with good personal hygiene were 82.12% compared to respondents whose personal hygiene was less good at 34.69% while respondents who experienced The incidence of dermatitis with good personal hygiene was 17.88% compared to respondents who were less good at 65.31%. The results of statistical analysis obtained a p-value of 0.000 which shows there is a relationship between personal hygiene and the incident Dermatitis. The results of the odd ratio calculation obtained a value of = 8.64, which means that respondents with poor personal hygiene had an 8.64 times risk of experiencing dermatitis compared to respondents with good personal hygiene. The proportion of respondents who did not experience dermatitis with a good level of knowledge was 67.39% compared to respondents who had poor knowledge of 44.74%, while respondents who experienced dermatitis with a good level of knowledge was 32.61% compared with respondents who had a good level of knowledge. unfavorable by 55.26%. The results of statistical analysis obtained a p-value of 0.000 which shows that there is a relationship between the level of knowledge and the incidence of dermatitis. The results of the odd ratio calculation obtained a value = 2.55, which means that respondents with a poor level of

knowledge are at risk of experiencing dermatitis 2.55 times compared to respondents who have a good level of knowledge.

The proportion of respondents who did not experience dermatitis who stated that the role of health workers was good was 60% compared to respondents who stated that the role of health workers was not good at 48.55%, while respondents who experienced dermatitis with the role of health workers were good at 40% compared to the role of health workers. unfavorable by 41.87%. The results of statistical analysis obtained a p-value of 0.760 which shows that there is no relationship between the role of health workers and the incidence of dermatitis. The results of the odd ratio calculation obtained a value = 1.080, which means that the role of health workers who are not good is 1.080 times more likely to experience dermatitis incidents compared to the role of health workers who are good. The proportion of respondents who did not experience dermatitis with good use of personal protective equipment was 72.80% compared to respondents who used poor personal protective equipment which was 58.13% while respondents who experienced dermatitis with good use of personal protective equipment was 40% compared with respondents whose use of personal protective equipment was poor at 51.45%. The results of statistical analysis obtained a p-value of 0.000 which shows that there is a relationship between the use of personal protective equipment and the incidence of dermatitis. The results of the odd ratio calculation obtained a value of = 2.83, which means that respondents who used poor personal protective equipment were 2.83 times more likely to experience dermatitis compared to respondents who used good personal protective equipment.

## **DISCUSSION**

### **The Relationship between Personal Hygiene and Dermatitis**

Based on the research results, it shows that respondents who did not experience dermatitis with good personal hygiene were 82.12% compared to respondents whose personal hygiene was not good at 34.69%, while respondents who experienced dermatitis with good personal hygiene were 17.88%. compared with respondents who were less good at 65.31%. The results of statistical analysis obtained a p-value of 0.000 which shows that there is a relationship between personal hygiene and the incidence of dermatitis. The results of the odd ratio calculation obtained a value of = 8.64, which means that respondents with poor personal hygiene had an 8.64 times risk of experiencing dermatitis compared to respondents with good personal hygiene. Personal hygiene is one of the factors that can prevent dermatitis. The habit of washing hands is one of the things that is assessed regarding personal hygiene. Improper hand washing habits can be one of the causes of dermatitis. Habit of washing your hands that is not clean enough will cause residual chemicals to remain on the surface of the skin. Choosing the type of hand washing soap can also affect skin cleanliness and health. Efforts to dry your hands after washing can also play a role in preventing skin conditions from getting worse due to damp hands (Akbar, 2020).

The research that has been carried out has obtained results from statistical tests that there is a significant relationship between personal hygiene and the incidence of dermatitis. This research is in line with the research of Gafur A, Syam N (Syam, 2018) which states that personal hygiene in the form of clean towels, body cleanliness (bathing), cleanliness of hands and nails is related to the incidence of dermatitis in the work area of the Rappokalling Community Health Center in 2016. Personal hygiene is directly related to the incidence of dermatitis (Akbar, 2020). This is in line with research by Salmarianty et al on Tembilahan city waste transport workers, which shows that there is a relationship between personal hygiene and the incidence of dermatitis in waste transport workers. Personal hygiene is a way of

caring for humans to maintain health. Personal hygiene is very important to pay attention to. Maintaining personal hygiene is necessary for individual comfort, safety and health (Harfika & Suryani, 2023). To overcome the occurrence of dermatitis complaints with personal hygiene, it is necessary to provide a special place for washing hands and feet along with soap. And provides special bathroom facilities for fishermen. So you can reduce exposure to allergens. Therefore, it is necessary to improve personal hygiene, both in terms of supporting facilities and workers, so as to create a comfortable workplace for workers and fish trading places. This can be possible because based on the results of interviews during research, on average almost all fishermen answered that they never wash their hands with soap. And when making observations, there was no special soap available for washing hands and feet after the auction process for the fishermen, so they had to provide their own soap. This means that workers sometimes do not use soap after washing their hands and feet. Apart from the unavailability of soap dispensers, TPI also provides only one hand washing basin, and bathroom facilities for fishermen are not available. This makes fishermen sometimes clean with a dry cloth without washing and soaping it first. Personal hygiene applied by workers is included in the bad category.

### **The Relationship between Knowledge and Dermatitis**

Based on the research results, it shows that respondents who did not experience dermatitis with a good level of knowledge were 67.39% compared with respondents who had poor knowledge of 44.74%, while respondents who experienced dermatitis with a good level of knowledge were 32.61% compared with respondents whose level of knowledge was poor was 55.26%. The results of statistical analysis obtained a p-value of 0.000, which shows that there is a relationship between the level of knowledge and the incidence of dermatitis. The results of the odd ratio calculation obtained a value = 2.55, which means that respondents with a poor level of knowledge had a 2.55 times risk of experiencing dermatitis compared to respondents who had a good level of knowledge. This research is in line with Afrida's research (Tunny, 2022), The level of knowledge of respondents regarding dermatitis in North Palu District obtained a percentage value of 55.3% who had good knowledge. In this study, it was also reported that those whose knowledge was poor were less proactive in following education both from health workers and from the mass media. Knowledge is gained through outreach from community health centers and from local people who tell them about dermatitis and its prevention (Tunny, 2022). Good knowledge about dermatitis will greatly influence the behavior of fishermen in making efforts to prevent dermatitis. Fishermen with high knowledge are expected to be able to make appropriate efforts to prevent dermatitis. Awareness will grow if the fisherman has high knowledge (RAHMA WIDYA UTAMA, 2018). According to the researcher's analysis, respondents who have high knowledge about dermatitis are supported by the results obtained from the questionnaire with a high level of knowledge. This is also due to respondents who have been active in participating in counseling and receiving information in various media, especially regarding efforts to prevent its occurrence. dermatitis disease.

### **Relationship between Age and Dermatitis**

Based on the research results, it shows that respondents who did not experience dermatitis in their productive age were 76% compared with respondents who were in their non-productive age, which was 5.48%, while respondents who experienced dermatitis in their productive age were 24% compared with respondents who were in their non-productive age. amounting to 94.52%. The results of statistical analysis obtained a p-value of 0.000, which shows that there is a relationship between age and the incidence of dermatitis. The results of the odds ratio calculation obtained a value = 54.625, which means that respondents of unproductive age had

a 54.625 risk of experiencing dermatitis compared to respondents of productive age. The sample in this study mostly belonged to the productive age group. This is in line with the reason that people who are in the productive age range will often be exposed to causative agents, either through daily activities or work. This research is in line with Prabowo's research, (Prabowo et al., 2017) There is a significant relationship between age and the incidence of contact dermatitis. The results of the chi square test to test the relationship between the age variable and the incidence of contact dermatitis showed a value of  $p = 0.033$  so that the age variable had a significant relationship with the occurrence of contact dermatitis (Prabowo et al., 2017). This research is not in line with Rusdhianata's research. The results of statistical tests are also in accordance with research by Nani Rianingrum, namely that the age factor is not related to dermatitis complaints in laundry workers in Tangerang City with a  $p$  value  $> 0.05$  (0.240) (Rusdhianata et al.). Age is an element that cannot be separated from an individual. Apart from that, age is also a factor that can worsen the occurrence of contact dermatitis. Dermatitis can be suffered by people of all ages. An older person has dry, thin skin that is intolerant of soap and solvents (Widianingsih, 2017).

According to researchers' assumptions, the relationship between unproductive age, usually referring to old age, and dermatitis may involve several factors that can influence a person's skin health. The relationship between non-productive age and dermatitis is complex, and each individual may experience different effects depending on genetic factors, lifestyle, and general health conditions. Fishermen should maintain skin cleanliness and moisture, avoid exposure to irritants, and consult a health professional if any skin problems arise. The Relationship between Education and Dermatitis Based on the research results, it shows that respondents who did not experience dermatitis with a high education level were 36.67% and respondents with a secondary education level were 44%, for primary education levels it was 58.33%, while respondents who experienced dermatitis with a high education level were 63.33% and respondents with secondary education level were 56% and for respondents with primary education level it was 41.67%. The results of statistical analysis obtained a  $p$ -value of 0.007 which shows that there is a relationship between education level and the incidence of dermatitis. The results of the odd ratio calculation obtained a value of  $= 5.52$ , which means that respondents with a secondary education level are 5.52 times more likely to experience dermatitis compared to respondents who have a higher education level. This research is in line with Ernyasih's research (2021) The bivariate test results show that there is a significant relationship between education level and the incidence of dermatitis in the work area of the Poris Gaga Lama Community Health Center in 2021 with  $p$  value  $= 0.004$ . Likewise, Sanders et al.'s research stated that there was a significant relationship between education level and the incidence of dermatitis with  $p$  value  $= 0.001$ . In contrast to Abdul & Nasruddin's research which stated that there was no significant relationship between education level and the incidence of dermatitis at the Rappokalling Community Health Center with  $p$  value  $= 0.785$  (Ernyasih et al., 2022).

Education is a learning and teaching process based on what is expected by the community environment. Education has a relationship with a person's development patterns and changes in behavior (Pakaya et al., 2021). Education is also related to changes in knowledge, attitudes, beliefs, skills, and all aspects of society's behavior to make it better (Yuristia, 2018). According to researchers' assumptions, there is a relationship between education and the incidence of dermatitis because health education plays an important role in preventing dermatitis and managing it. Dermatitis is a term commonly used to describe inflammation of the skin that can be caused by various factors, such as allergies, irritation, or exposure to

certain chemicals. The relationship between health education and dermatitis is very influential on fishermen.

### **Relationship between the role of health workers and dermatitis**

Based on the research results, it shows that 60% of respondents who did not experience dermatitis stated that the role of health workers was good compared to respondents who stated that the role of health workers was not good at 48.55%, while respondents who experienced dermatitis with the role of health workers being good was 40%. compared to the less good role of officers at 41.87%. The results of statistical analysis obtained a p-value of 0.760 which shows that there is no relationship between the role of health workers and the incidence of dermatitis. The results of the odd ratio calculation obtained a value = 1.080, which means that the role of health workers who are not good is 1.080 times more likely to experience dermatitis incidents compared to the role of health workers who are good. The role of health workers is very important in the prevention, diagnosis and management of dermatitis (Heriyanto et al., 2024). Several aspects of the role of health workers in relation to dermatitis such as; Prevention and Education, Early Diagnosis and Treatment, Management and Treatment, Psychological Counseling and Support, Referral and Collaboration (HUMAIRA, 2021). According to researchers' assumptions, involving various roles of health workers, from education and prevention to diagnosis, management and psychological support, can help improve and prevent dermatitis experienced by fishermen.

### **Relationship between use of personal protective equipment and dermatitis**

Based on the research results, it shows that respondents who did not experience dermatitis with good use of personal protective equipment were 72.80% compared to respondents who used poor personal protective equipment at 58.13% while respondents who experienced dermatitis with good use of personal protective equipment were 58.13%. 40% compared to respondents whose use of personal protective equipment was poor at 51.45%. The results of statistical analysis obtained a p-value of 0.000 which shows that there is a relationship between the use of personal protective equipment and the incidence of dermatitis. The results of the odd ratio calculation obtained a value of = 2.83, which means that respondents who used poor personal protective equipment had a 2.83 risk of experiencing dermatitis compared to respondents who used good personal protective equipment. This research is in line with Ratnaningsih's research (Ola et al., 2019), of the 63 respondents who used personal protective equipment and experienced dermatitis, 8 did not experience skin infections, and 95.2 respondents who used personal protective equipment did not use it. In addition, 16 people who experienced skin infections did not use personal protective equipment and did not experience dermatitis simultaneously (Oktarizal et al., 2022).

Fishermen can take precautions to avoid dermatitis by using personal protective equipment and maintaining personal hygiene practices including showering and washing work clothes (Astri et al., 2023). Apart from that, washing clothes carefully is also necessary because the irritation attached to clothes can eventually spread to the body. Fishermen must wear safe personal protective equipment as follows: 1) Long-sleeved work clothes without folds or openings at the chest or back. Avoid wearing work clothes with legs that are too long, bottoms that are too wide, or that fold up because they restrict movement and are more likely to snag or fall. 2) head protection in the form of a hat or headscarf which functions to protect against heat and cold caused by working weather; 3) hand protection in the form of plastic gloves that protect hands from moisture and humidity and prevent them from coming into contact with fish and marine life; and 4) foot protection in the form of rubber boots that protect the feet from getting wet and coming into contact with fish and marine life (Astri et

al., 2023). According to researchers' assumptions, most combat fishermen wear protective equipment such as gloves, boots and clothing. Fishermen, however, wear more headgear. Fishermen are more at risk if they do not wear personal protective equipment. In the Kembang Tanjong and Simpang Tiga sub-districts, many fishermen do not realize the importance of wearing personal protective equipment.

### **Relationship between Working Period and Dermatitis**

Based on the research results, it shows that respondents who did not experience dermatitis with a working period of  $\geq 8$  years were 60% compared to respondents who had a working period of  $< 8$  years of 57.03%, while respondents who experienced dermatitis with a working period of  $\geq 8$  years was 40%. compared with respondents whose work experience was  $< 8$  years, it was 42.97%. The results of statistical analysis obtained a p-value of 0.606, which shows that there is no relationship between work experience and the incidence of dermatitis. The results of the odd ratio calculation obtained a value = 1.130, which means that respondents with a working period of  $< 8$  years have a 1.130 risk of experiencing dermatitis compared to respondents with a working period of  $\geq 8$  years. The results of this study support research conducted by (Retnoningsih) in Semarang City which showed that there was no significant relationship between work period and the incidence of contact dermatitis at a value ( $p=0.244$ ) (Norvalinda & Arbi, 2023). According to Suma'mur, the longer a person works, the more exposed he is to the dangers posed by the environment in which he works (Nofianti & Koesyanto, 2019), Likewise, the results of research conducted by Kasiadi in Kalinaun Village, North Minahasa, show that there is a relationship between work experience and skin disorders in fishermen with a value of ( $p=0.029$ ) (Kasiadi et al., 2019).

According to Retnoningsih (Norvalinda & Arbi, 2023) Workers with a new period of work who have not been exposed for too long with a long frequency of contact may not have an impact on the occurrence of skin disorders, whereas a long period of work may possibly influence skin disorders because workers have been exposed to skin for a long time (Wibisono et al., 2019). According to researchers' assumptions, the relationship between length of service and the risk of contracting dermatitis in fishermen can be influenced by various factors, especially because fishermen are often exposed to environmental conditions that can trigger or worsen dermatitis. These factors can be prevented and can be influenced if fishermen understand how to prevent dermatitis.

### **Relationship between allergy history and dermatitis**

Based on the research results, it shows that respondents who did not experience dermatitis with no history of allergies were 72.87% compared to respondents who had a history of allergies at 34.55% while respondents who experienced dermatitis with no history of allergies was 27.13% in compared with respondents who had a history of allergies, 65.45%. The results of statistical analysis obtained a p-value of 0.000, which shows that there is a relationship between a history of allergies and the incidence of dermatitis. The results of the odd ratio calculation obtained a value = 5.08, which means that respondents with a history of allergies are 5.08 times more likely to experience dermatitis compared to respondents who do not have a history of allergies. A diagnosis regarding dermatology history that is often asked to differentiate one disease from another disease is to ask the patient whether they have a history of chronic medical problems (Gafur & Syam, 2018). Irritant contact dermatitis can affect anyone who is exposed to sufficient amounts of irritants, but individuals with a history of atopic dermatitis are more susceptible. The onset of allergic contact dermatitis is influenced by a history of chronic disease and prolonged topical use (Syam, 2018).

This research is in line with Nurmaningtias' research, 74.5% of respondents had no previous history of skin disease (RAHMA WIDYA UTAMA, 2018). This research also shows that fishermen's history of skin disease makes them more at risk of suffering from dermatitis. Low awareness of fishermen who do not care about their health, because fishermen who have a history of allergies are lazy about seeking treatment and consider the skin disease they experience trivial. According to researchers' assumptions, a history of allergies can be related to dermatitis, especially in the context of atopic dermatitis. Atopic dermatitis is a type of dermatitis that is generally chronic and is often related to genetic factors, as well as allergic reactions to certain substances. not everyone with a history of allergies will develop dermatitis, and vice versa. However, a history of allergies can be a risk factor that increases a person's chances of experiencing dermatitis, especially in the context of atopic dermatitis.

## **CONCLUSION**

The results of this study generally conclude that overall the main factors that trigger the problem of dermatitis in fishermen are personal hygiene with a p-value of 0.000, history of allergies with a p-value of 0.000 and age with a p-value of 0.000, while the factors that not related to dermatitis after a multivariate test, namely knowledge with a p-value of 0.562, secondary education with a p-value of 0.945, basic education with a p-value of 0.611 and use of PPE with a p-value of 0.051

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