



THE RELATIONSHIP OF PERSONAL HYGIENE AND THE USE OF PERSONAL PROTECTIVE EQUIPMENTS WITH DERMATITIS COMPLAINTS IN FISHERMAN OF SUGIH WARAS VILLAGE PEMALANG DISTRICT

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ABSTRACT

One of the most common occupational diseases in fisherman is dermatitis, lead to clinical abnormalities of polymorphic licensed (erythema, endemias, papules, vesicles, skuama, likenifikasi) and itchy complaints. This study aims to determined the relationship of personal hygiene and the use of personal protective equipment (PPE) with complaints of dermatitis This research used cross sectional research design. The popoulation of studi are all of fisherman in Sugihwaras Village Pemalang district. The number of samples as much as 58 respondents obtained by using accidental sampling method. Data of personal hygiene and the use of PPE were collected by questionnaire. Data of dermatitital complaints were collected by medical person. Data analysis used Chi Square Test. 47% of respondents have poor personal hygiene and 57% of respondents who didn't weared PPE are at risk of experience complaints of dermatitis in the body. The result of this research can be concluded that there are positive positive relationship between personal hygiene with dermatitis complaint (p value 0,003) PR (95%CI) = 2,01 (1,24 – 3,27), positive positive relationship between the use of personal protective equipment with dermatitis complaint (p value 0,005) PR(95%CI) = 2,02 (1,16 – 3,55). There are relationship between personal hygiene and the use of Personal Protective Equipment (PPE) with complaints of dermatitis.

Keyword: *dermatitis; fisherman; personal hygiene; PPE*

INTRODUCTION

Indonesia is known as a maritime country, most of whose territory is water. Several facts on the ground show that we deserve to be called a maritime country because according to the facts 2/3 of Indonesia's territory is water, Indonesia's coastline reaches 18,000 km, the second longest after Canada, and our marine diversity is believed to be one of the most comprehensive in the world (Rakawhisnu, 2007). One of the most common occupational diseases is occupational contact dermatitis. Dermatitis is a skin disease that generally can occur repeatedly in a person in the form of skin inflammation (epidermis and dermis) in response to the influence of exogenous and / or endogenous factors, which cause clinical abnormalities in the form of polymorphic licenses (erythema, endema, papules, vesicles, squama, lichenification) and complaints of itching (Djuanda, 2007).

The results of a preliminary study conducted by researchers with interviews with local practicing doctors, that for 2 months there were 3 patients who worked as fishermen suffering from skin disorders such as complaints of dermatitis. Symptoms that arise in fishermen include itching, peeling skin, redness, aching sensation and small blisters filled with fluid. There are 5 fishermen who, after going to sea, most of them do not immediately take a shower and there are some fishermen whose clothes are not washed, only dried in the sun because tomorrow they will be worn again, and fishermen do not use personal protective equipment when the majority of workers do not wear personal protective equipment gloves. These results

were obtained based on observations through field visits and supported by interviews with doctors in the local area.

METHOD

This study used a cross-sectional study design, the number of samples of 58 respondents obtained using accidental sampling method. The data analysis used was univariate and bivariate. The measuring instrument of this study used a questionnaire and observation assisted by an examination of medical personnel, namely nurses. Statistical test using the Chi Square Test. This research was conducted in July 2017. The research site was in Sugihwaras Village, Dukuh Tanjung Sari, Pemalang District, Pemalang Regency.

RESULTS AND DISCUSSION

Respondent Characteristics

Table 1.
Age Characteristics of Respondents (n = 58).

Respondent Characteristics	Median	Manimum	Maximum
Age	45.00	25	55

This table show that the average age of fishermen 45 years. The youngest age of the respondents was 25 years old, and the highest age was 55 years.

Table 2.
Distribution of Frequency of Work Period, Gender, Last Education of Respondents (n = 58)

Variable	f	%
Year of Service		
< 4 year	6	10.3
≥ 4 year	52	89.7
Sex		
Man	58	100
Woman	0	0,0
Level of education		
Not completed in primary school	15	25.9
primary school	38	65.5
Junior high school	5	8.6
High school	0	0,0
College	0	0,0

Table 2 above showed that of the 58 respondents, the average working tenure of fishermen more than 4 years was 52 people (89.7%) and the rest less than 4 years were 6 people (10.3%). The table above also shows the gender of all male respondents as many as 58 people (100%). And the majority of respondents' education level is primary school as many as 38 people (65.5%), and a small proportion of respondents with junior high school education are 5 people (8.6%).

The table 3 showed that the majority of fishermen have washed their hands after working as many as 57 people (98.28%), but 22 people do not wash their hands with soap (37.93%) and 3 people change their work clothes (5.17%)).

Table 3.
Frequency Distribution of Respondents' Personal Hygiene (n = 58)

Variable	Yes (%)	No (%)
Do you wash your hands after work	57 (98,28%)	1 (1,72%)
Do you wash your hands with soap	52 (89,66%)	6 (10,34%)
Do you clean between your fingers	22 (37,93%)	36 (62,07%)
Do you wash your hands with running water	33 (56,90%)	25 (43,10%)
Do you wash your feet after work	55 (94,83%)	3 (5,17%)
Do you clean between your toes	46 (79,31%)	12 (20,69%)
Do you wash your feet with running water	32 (55,17%)	26 (44,83%)
Do you wash your feet with soap	29 (50,00%)	29 (50,00%)
Do you take bath moments after workers	38 (65,52%)	20 (34,48%)
Do you wash work clothes that are in use	38 (65,52%)	20 (34,48%)
Do you take a break when your workers (go to sea) replace your work clothes?	3 (5,17%)	55 (94,83%)

Table 4.
Distribution of the use of personal protective equipment (PPE) of Respondents (n = 58)

Variabel	Ya (%)	Tidak (%)
Do you use a mask / face covering while working	27 (46,55%)	31 (53,45%)
Do you use gloves while working	17 (29,31%)	41 (70,69%)
Do you wear shoes while working	27 (46,55%)	31 (53,45%)
Do you wear long sleeves when working?	53 (91,38%)	5 (8,62%)
Do you use trousers when working	58 (100%)	0 (0,00%)

The table 4 shows that the majority of fishermen who use long-sleeved trousers are 58 (100%), while 17 people use gloves (29.31%).

Tabel 5.
Distribution of Respondents' dermatitis complaints (n = 58)

Variable	f	%
Complaints of dermatitis	33	56,90 %
Complaints no dermatitis	25	43,10%

Tabel 6.
Cross tabulation of personal hygiene and Personal Protective Equipment (PPE) with
complaints of dermatitis (n = 58)

complaints of dermatitis (n = 33)					
Variable	Complaint		Total	<i>P value</i>	PR (95% CI)
	Dermatitis F(%)	No dermatitis F(%)			
<i>Personal hygiene</i>					

Not good	21 (77,8%)	6 (22,2%)	100 (100%)	0,003	2,01 (1,24 – 3,27)
Good	12 (17,6%)	19 (13,7%)	100 (100%)		
Use of PPE					
Not weared PPE	24 (72,7%)	9 (27,3%)	100 (100%)	0,005	2,02 (1,16 – 3,55)
weared PPE	9 (36,0%)	16 (64,0%)	100 (100%)		

The table 4 shows that out of 58 respondents, 21 respondents (77.8%) had poor personal hygiene, and 6 respondents (22.2%) had no dermatitis. Personal Hygiene had good dermatitis as many as 12 respondents (17.6%) and no dermatitis 19 respondents (13.7%). Based on the chi square test, it was found that the p value of valaue was 0.003 PR (95% CI) = 2.01 (1.24 - 3.27). well, then ha is declared accepted. So that the better someone is in personal hygiene, the lower the risk of dermatitis complaints. The table 5 shows that there were 33 fishermen with dermatitis complaints (56.90%) and no dermatitis as many as 25 people (43.10%).

The table 6 shows that 24 of the 58 respondents who did not wear PPE had dermatitis (72.7%), and 9 (27.3%) had no dermatitis. Wearing PPE had dermatitis 9 respondents (36.0%), and 16 respondents (64.0%) did not have dermatitis. Based on the chi square test, the p value obtained was 0.005 PR (95% CI) = 2.02 (1.16 - 3.55) fishermen who do not wear PPE will have 2 times the risk of developing dermatitis complaints than fishermen who wear PPE , then ha accepted. So that the better someone is in wearing personal protective equipment, the smaller the risk of dermatitis complaints.

Age

In this study, the average age of the respondents was 45 years. According to the ILO statistics agency (2014), the number of workers aged over 15 years is 121.9 million people who are active in the economy. This study is in line with Ariawan's research (2011), which states that the majority of workers are over 30 years of age. Labor age is sufficient to determine the success of doing a job, both physical and non-physical. In general, older workers have weak and limited physical energy, on the other hand, young workers have strong physical abilities (Amron, 2009).

According to Law No. 13 of 2003 concerning Manpower, a child is anyone under 18 years of age. According to the International Labor Organization (ILO), the productive age is between 15-64 years old, while the non-productive age is between 0-14 years and > 64 years, thus the age of building frame workers is included as the productive age. Age of workers is one of the considerations in placing workers, this is to avoid low productivity of workers. Workers who are older should be placed in jobs that do not require physical energy and heavy responsibilities, only given a job that is in proportion to their physical condition. On the other hand, workers who are young and energetic should be given a rather heavy job compared to older workers (Sastrohadiwiryono, 2005).

Years of service

The characteristics of respondents based on tenure are divided into two categories, namely: less than 4 years and more than 4 years. The assumption of the researcher is that if the fishermen have worked for more than 4 years, the fishermen will know well about the fishermen culture in knowing the geographic area as a whole, while fishermen with a total period of less than 4 years know enough about the fishermen culture in knowing the geographical area. The number of respondents based on the total working period as fishermen.

Gender

The existence of sex differences can affect the level of productivity of a person. Universally, the level of productivity of men is higher than women. This is influenced by factors possessed by women such as being physically weak, at work they tend to use feelings or biological factors such as having to leave when giving birth (Amron, 2009). This is in line with the research conducted by Ariawan (2011).

Education

The higher a person's education level, the higher the level of productivity or performance of the workforce (Simanjuntak, 2001). In general, people who have higher formal and informal education will have broader insights. The high awareness of the importance of productivity will encourage the workforce to take productive actions (Kurniawan, 2010). From this statement, it can be said that the level of education of a fisherman has a positive effect on productivity, because people with higher education have more knowledge to improve their performance. This is in line with the research of Ayu, Tirtayasa and Saputra (2015), the characteristics of the research respondents. The age of the respondents in this study averaged 45 years. For the education level of respondents, more respondents had taken formal elementary education as many as 38 people and 15 people did not graduate from SD. In line with Ayu Amelia's research (2016).

Personal Hygiene

In this study, 22 (27.93%) of poor personal hygiene were found (27.93%) and the majority changed work clothes as many as 3 (5.17%) people who changed work clothes.

The cleanliness of work clothes also needs attention. The remaining dirt stuck to the clothes can infect the body if you use it repeatedly. Washing clothes regularly with soap and dry them in the sun is one way to prevent skin disease transmission. Clothes that have been worn for 12 hours, must be washed if they are to be used again. For this reason, it is necessary to change clothes with clean ones every day Nurmanistias (2016).

Personal Protective Equipment (PPE)

In this study, the majority of fishermen who wore long-sleeved trousers were 58 (100%), 53 (91.38%) of the fishermen who wore long shirts, while 17 (29.31%) of the fishermen used gloves, because the fishermen were less comfortable. wearing gloves even though wearing PPE will reduce the risk of occupational diseases such as complaints of dermatitis.

Complaints of Dermatitis

In this study, 33 (56.90%) respondents experienced complaints of dermatitis. Due to environmental factors that are not good or uncomfortable, fishermen do not pay attention to personal hygiene and do not use bad personal protective equipment so that many fishermen still experience complaints of dermatitis.

Personal Hygiene Relationship with Dermatitis Complaints

In this study, it was found that there was a strong positive relationship between personal hygiene and complaints of dermatitis, there were still many fishermen who did not change their work clothes so that they were at risk of experiencing complaints of dermatitis in the body. So that the better the respondent's personal hygiene, the lower the risk of dermatitis. Based on previous research conducted by Annisa (2010), the results showed that workers who did not have bad personal hygiene and experienced dermatitis were 60% while good personal hygiene and experienced contact dermatitis was 50% the same as research conducted by

Cahyawati (2010). that 13 out of 19 (65%) respondents suffer from dermatitis with poor personal hygiene. If personal hygiene such as washing hands, showering before leaving work, changing clean clothes every day and wearing clean personal protective equipment, it will be easier

The emergence of dermatitis. Personal hygiene is one of the efforts to prevent skin diseases. One of the personal hygiene measures to prevent dermatitis is by keeping the skin clean. Skin hygiene is to maintain the cleanliness of their skin before and after work which includes bathing, using soap, washing clean clothes (Safriyanti 2016).

Good personal hygiene can reduce complaints of dermatitis due to personal hygiene that meets criteria such as washing hands with soap and washing feet with soap and washing work clothes with soap and drying them in the sun to dry.

Relationship of Personal Protective Equipment (PPE) with Complaints of Dermatitis

In this study, it was found that there was a strong positive relationship between not wearing Personal Protective Equipment with dermatitis issues, such as not wearing gloves, the risk of developing dermatitis on the hands, so that the more respondents did not wear Personal Protective Equipment (PPE), the greater the risk of complaints. dermatitis. PPE that is often used by fishermen is in the form of masks, gloves, shoes, long sleeves and trousers. It can be seen that the highest contact dermatitis complaints are in fishermen who do not use gloves or shoes. This is in line with the opinion expressed by Cahyawati (2010), The use of personal protective equipment will prevent a person from direct contact with physical, chemical or biological agents.

Fishermen who do not wear personal protective equipment (PPE) can be at risk of developing dermatitis complaints because there is no skin barrier that protects the skin from direct exposure to irritants or the presence of friction and pressure from fishermen's work activities when catching fish spread and pulling wet and moist hand nets rubbing causes irritation which can cause expulsion dermatitis dermatitis. Meanwhile, fishermen who wear PPE with long shirts and trousers are also likely to experience dermatitis complaints. PPE, which is functioned to protect themselves from the sun's heat, actually causes complaints of dermatitis to fishermen. This is because PPE, which is wet and damp with seawater, becomes a place for fungi to develop on the skin that causes itching so that it is at risk of causing skin disease, namely dermatitis.

CONCLUSION

Characteristics of fishermen respondents are 45 years old on average, all respondents are male, and the majority of respondents' education level is elementary school. The majority of fishermen are not good at personal hygiene, washing their hands with soap, changing their clothes while working, with the majority not wearing personal protective equipment, fishermen's gloves, at risk of dermatitis complaints.

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