

The Relationship Between the use of Personal Protective Equipment (PPE) and Symptom of Skin Disease in Scavengers

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Abstract

The objective of the research To analyze the relationship between personal protective equipment (PPE) and symptom of skin disease in scavengers at TPA Mancani, Palopo City in 2022. The research design is a quantitative cross sectional, which analyzes the relationship between the dependent and independent variables. The dependent variable in this study is skin disease, while the independent variable is the use of personal protective equipment. July to August 2022 at TPA Mancani, Palopo City, 2022. The sample uses a total sampling of 40 responden. The results of the study showed that There is a relationship between personal protective equipment (PPE) and complaints of skin disease in scavengers at TPA Mancani, Palopo City in 2022, with a value $P = .016$.

Keywords: PPE, Symptom, Skin Disease

Introduction

Skin disease is one of the health problems that is often found in garbage collectors, therefore caring for and maintaining skin cleanliness is very influential on the health of the human body (Brown, 2009). Skin diseases are caused due to direct exposure between the skin and bacteria, viruses, fungi, investment by parasites and allergic reactions (Apriliani et al., 2022). Occupational hazards for scavengers can be in the form of infectious and non-communicable diseases. The symptom that are often experienced by scavengers are the emergence of respiratory system disorders, diarrhea and skin diseases (Haryanto et l., 2015). Another problem at TPA Mancani in Palopo City is the work behavior of scavengers, the behavior of workers in this case is the use of personal protective equipment (PPE) and personal hygiene for scavengers which is still not applied to scavengers.

Based on a preliminary survey in the form of observations at the Mancani final disposal site (TPA), Telluwanua District, Palopo City, through casual interviews with 30 scavengers, it was found that 28 people had symptom of skin disorders such as itching and skin redness, in several parts of the body such as hands and feet. arm. This happens because there are still many scavengers who do not use complete PPE at work, personal hygiene for scavengers is also a risk factor for symptom of diarrhea, intestinal worms, skin diseases and so on. This prevention can be done so that waste pickers can avoid the risk of accidents and occupational diseases by using PPE in the form of head protectors, hand protectors, protective clothing, leg protectors and respiratory protective equipment while working (Lolowang et al., 2020). The objective of the research to analyze the relationship between personal protective equipment (PPE) and symptom of skin disease in scavengers at TPA Mancani, Palopo City in 2022.

Methods

The research design is a quantitative cross sectional, which analyzes the relationship between the dependent and independent variables. The dependent variable in this study is skin disease, while the independent variable is the use of personal protective equipment. July to August 2022 at TPA Mancani, Palopo City, 2022. The sample uses a total sampling of 40 respondent. In this study using an instrument in the form of a questionnaire sheet to measure the use of personal protective equipment (PPE) on scavengers who will be given 6 questions using the Guttman scale, namely a value of 1 = Yes, a value of 0 = No. If the respondent answered $\geq 50\%$ then given code 1 and if the respondent answered $< 50\%$ then given code 2.

Results and Discussion

Univariate Analysis

Symptom of Skin Diseases

Table 1. Distribution of respondents based on symptom of skin disease in scavengers at TPA Mancani, Palopo City, in 2022 (N=40).

Symptom of Skin Diseases	Frekuensi	Persen (%)
Yes	24	60,0
No	16	40,0
Total	40	100

Personal protective equipment (PPE)

Table 2. Distribution of respondents based on personal protective equipment for scavengers at TPA Mancani, Palopo City, in 2022 (N=40).

Alat pelindung diri	Frekuensi	Persen (%)
Good	17	42,5
Not Good	23	57,5
Total	40	100

Bivariate analysis

The relationship between the use of personal protective equipment (PPE) and symptom of skin disease in scavengers at TPA Mancani, Palopo City.

Table 3. The relationship between the use of personal protective equipment and symptom of skin diseases at the TPA Mancani, Palopo City, 2022 (N=40)

Personal Protective Equipment (PPE)	Symptom Of Skin Diseases						ρ
	Ya		Tidak		Total		
	n	%	n	%	N	%	
Baik	6	35,3	11	64,7	17	100	,016
Kurang baik	18	78,3	5	21,7	23	100	

The relationship between personal protective equipment (PPE) and skin disease complaints

Personal Protective Equipment (PPE) is a tool that functions to protect part or all of the worker's body from exposure to potential hazards in the work environment which result in accidents and work-related illnesses (Yuristi & Siagian, 2020). Based on the results of statistical analysis using the chi-square test, the value of $p = .016$ ($p < 0.05$) showed that there was a relationship

between the use of personal protective equipment (PPE) and complaints of skin disease in scavengers at TPA Mancani, Palopo City. In this study, out of 40 respondents, the number of respondents who had good personal protective equipment (PPE) who experienced skin disease complaints was 6 (35.3%) of respondents and respondents who had poor personal protective equipment (PPE) who had complaints of disease skin as much as 18 (78.3%) respondents.

The results of an observation survey at the Mancani final disposal site (TPA) in Palopo City, when scavengers are working pay less attention to and maintain their own occupational safety and health (K3), such as not using masks, gloves, head protectors and boots when working in landfills (TPA) and there are several scavengers who have complaints of skin disorders such as itching, skin redness, in several parts of the body such as hands and arms. From the results of observations, when working, generally scavengers do not maintain personal hygiene, such as not using personal protective equipment (PPE) according to recommended standards, so that many scavengers experience skin disorders.

This research is in line with research conducted by (Ayu, 2017) statistical test results using the chi-square test showed that there was a significant relationship between the use of PPE and complaints of skin disorders p value $0.003 < 0.05$. And 48.0% of scavengers who experience complaints of skin disorders without using PPE. Based on the results of research conducted by (Fajariani et al., 2022), after being statistically tested, a p-value of .000 was obtained and a correlation coefficient value of -0.520. These results indicate that there is a significant relationship between the use of PPE and complaints of skin diseases among waste transport workers in Madiun City.

Conclusion

There is a relationship between personal protective equipment (PPE) and complaints of skin disease in scavengers at TPA Mancani, Palopo City in 2022, with a value $P = .016$.

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