

Personal Role of Hygiene and Environmental Sanitation in the Content of Dermatological Events in Toraja Utara, South Sulawesi

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Abstract: The purpose of this research was to determine the relationship of personal hygiene (skin hygiene and foot, hand and nail hygiene) with the incidence of Contact Dermatitis in Rantepao Health Centre, North Toraja and to know the relationship between environmental sanitation (water facilities and facilities for putting garbage) with the incidence of Contact Dermatitis at the Rantepao Health Centre, North Toraja. The research method uses cross sectional study. The number of samples is 82. Data were processed using Chi-square statistical tests with the provisions of p value <0.05 . The results of this research obtained personal hygiene (skin hygiene) with the incidence of Contact Dermatitis has a value of 0,000, personal hygiene (foot, hand and nail hygiene) with the incidence of Contact Dermatitis has a value of 0,000, environmental sanitation (water facilities) with the incidence of Contact Dermatitis has p value of 0,000, and environmental sanitation (a means to put waste) with the incidence of Contact Dermatitis has a value of 0.005. Data is processed using the Chi-square statistical test with the provisions of p value <0.05 . The results of this research obtained personal hygiene (skin hygiene) with the incidence of Contact Dermatitis has a value of 0,000, personal hygiene (foot, hand and nail hygiene) with the incidence of Contact Dermatitis has a value of 0,000, environmental sanitation (water facilities) with the event of Contact Dermatitis has p value 0,000, and environmental sanitation (a means to put waste) with the incidence of Contact Dermatitis has a value of 0.005. The conclusion of the research showed that personal hygiene (skin hygiene and cleanliness of feet, hands and nails) and environmental sanitation (water facilities and facilities for putting rubbish) have a relationship with the incidence of Contact Dermatitis in Rantepao Health Centre, North Toraja. It is recommended to conduct counseling about Contact Dermatitis by accompanying, monitoring and supervising the community on a regular basis regarding personal hygiene and environmental sanitation so that people are moved to always maintain personal hygiene and pay attention to environmental sanitation to avoid contact dermatitis.

Keywords: Personal hygiene, Dermatitis, Sanitation, Environment, Disease.

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I. Introduction

Dermatitis comes from the words *derm* (skin) and *itis* (inflammation), Healthy according to the World Health Organization (WHO) is a perfect condition both-physically, mentally, socially and even free from disease or disability. Achieving the highest degree of good health is a fundamental right for everyone regardless of race, religion, gender, politics and the socioeconomic level. Health is a basic need whose existence is needed by the community. Health development is part of national development whose aim is to increase awareness, willingness and ability to live a healthy life for everyone so that a good degree of public health is realized. Theory H.L. Blum, the degree of public health is influenced by 4 factors: environmental factors, behavioral factors, health service factors and genetic factors. These four factors interact with one another in influencing public health. The most influential factors are the environment and behavior. Examples of behaviors that can affect health are lifestyle and personal hygiene.

Dermatitis is non-inflammatory inflammation of the skin that is acute, sub-acute, or chronic and is influenced by many factors. Skin inflammation (epidermis and dermis) in response to the influence of exogenous factors (irritant and contactants, microorganisms, temperature changes), endogenous genetic predisposition, skin physiological and biochemical abnormalities, immunological dysfunction), causing clinical abnormalities in the form of polymorphic efflorescence and complaints of itching. Contact dermatitis is inflammation of the skin caused by contact with toxic or allergic exposures, which causes itching, redness, water-filled bumps and swelling. This disease arises due to several factors such as environmental factors, exposure characteristics, agent characteristics, and individual factors such as age, sex and personal hygiene. One of the causes of dermatitis is poor personal hygiene. To maintain skin hygiene, healthy habits must always be considered such as maintaining clean clothes, bathing regularly, bathing using clean water and soap, using

personal necessities of their own, eating nutritious foods, especially vegetables and fruits, and maintaining environmental Hygiene. Therefore personal health or personal health plays an important role.

Many factors cause dermatitis in the community, including direct causes, namely in the form of chemicals and inderect causes which include preexisting diseases, age, environment, and personal hygiene. Environmental factors such as pollutants and allergens trigger Dermatitis in susceptible individuals, such as; Pollutants: cigarette smoke, increased air pollution, use of heating, use of air conditioning; Allergens: mites, house dust, fruit pollen, animal dander, molds, cockroaches; Food: milk, eggs, nuts, sea fish, sea shells and wheat; Microorganisms: Staphylococcus aureus and Pityrosporum ovale. Dermatitis is a skin disease that is annoying, because of its recurrence, and its causes are difficult to find and determine. The nature of dermatitis is residif, in the sense that it can recur, depending on the type and trigger factors, then recurrence can be avoided.

Dermatitis has a large impact on the well-being of sufferers, both physically and psychologically. Patients with dermatitis will have difficulty doing activities such as playing, attending school, and can interfere with sleep and other normal activities. Dermatitis sufferers are often ridiculed and have difficulty hanging out with friends and the social community. The 2016 epidemiological study in Indonesia showed that 97% of 389 cases were Contact Dermatitis, of which 66.3% were Irritant Contact Dermatitis and 33.7% were Allergy Contact Dermatitis. Riskesdas 2013 data shows the national prevalence of dermatitis in Indonesia is 6.78%. North Toraja Regency Health Office data in 2017 showed the incidence of Contact Dermatitis was found as many as 1,463 and data obtained from the Rantepao Health Center in North Toraja Regency in 2015 showed the number of Contact Dermatitis was found as many as 156, in 2016 as many as 571 and in 2017 as many as 524.

Researchers refer to these data decided to conduct research under the title Personal Relationship Hygiene and Environmental Sanitation with the Occurrence of Contact Dermatitis in the Work Area of the Rantepao Community Health Center, Rantepao Regency, North Toraja Regency in 2018. This study aims to determine the relationship of personal hygiene (skin hygiene and foot, hand and nail hygiene) and environmental sanitation (water facilities and facilities for putting rubbish) with the incidence of contact dermatitis in the working area of Rantepao Public Health Center, Rantepao Regency, North Toraja Regency in 2018.

II. Method

This type of research will be used is an observational study with a quantitative approach and research design Cross-Sectional Study, which is a study conducted with observations for a moment or in a certain period of time and each subject is only made one observation during the study. The determination of sample size is done by forecasting the sample size in this study using the hypothesis test sample formula for two two-way proportions with a sample size of 82 people. The sampling method in this study was carried out by means of a purposive sampling technique, which is selecting samples according to the wishes of the researcher and based on criteria. A total of 82 case samples were taken based on data obtained from the Rantepao Health Center, North Toraja Regency.

III. Result and Discussion

Primary data collection was carried out using a questionnaire, then processed and presented in the form of frequency and crosstab tables in accordance with the study accompanied by narration as an explanation of the tables and variables in the study were analyzed univariately and bivariately. The research results are described as follows:

3.1 Relationship of Personal Hygiene (Skin Hygiene) with the incidence of contact dermatitis

Tabel 3.1: Distribution of Respondents According to the Relationship of Personal Hygiene (Skin Hygiene) with Dermatitis Events Contact Rantepao Health Centre North Toraja Regency

Skin Hygiene	Contact Dermatitis Events						Total p value
	Suffer		Not Suffer				
	Freq.	Perc.	Freq.	Perc.	Freq.	Perc.	
At Risk	63	90,0	2	16,7	65	79,3	0,00
Do not risk	7	10,0	10	83,3	17	20,7	
Total	70	100	12	100	82	100	

Source: Results of data processing, 2018

Table 3.1 shows that of the 70 respondents who had risky skin hygiene, there were (90.0%) who suffered from Contact Dermatitis and (16.7%) who did not suffer from Contact Dermatitis. While respondents who have skin hygiene that is not at risk, there are (10.0%) who suffer from Contact Dermatitis and (83.3%) who do not suffer from Contact Dermatitis.

After being tested using the Chi-square test obtained ρ value $0,000 < \rho$ standard value (0.05) means that it is significant so that H_0 is rejected and H_a is accepted with the interpretation that there is a relationship between skin cleanliness and Contact Dermatitis.

3.2 Relationship of Personal Hygiene (Foot, Hand and Nail Hygiene) with Contact Dermatitis

Tabel 3.2

Distribution of Respondents According to the Relationship of Personal Hygiene (Foot, Hand and Nail Hygiene) with the Occurrence of Contact Dermatitis in Rantepao Health Centre, North Toraja.

Feet, Hand, and Nail Hygiene	Contact Dermatitis Events						Total	ρ value
	Suffer		Not Suffer					
	Freq.	Perc.	Freq.	Perc.	Freq.	Perc.		
At Risk	67	95,7	3	25,0	70	85,4		
Do not risk	3	4,3	9	75,0	12	14,6		
Total	70	100	12	100	82	100	0,000	

Source: Results of data processing, 2018

Table 5.11 shows that of the 70 respondents who had foot, hand and nail hygiene at risk, there were (95.7%) suffering from Contact Dermatitis and (25.0%) who did not suffer from Contact Dermatitis. While respondents who have foot, hand and nail hygiene who are not at risk, there are (4.3%) who suffer from Contact Dermatitis and (75.0%) who do not suffer from Contact Dermatitis.

After being tested using the Chi-square test obtained ρ value $0,000 < \rho$ standard value (0.05) means that it is significant so that H_0 is rejected and H_a is accepted with the interpretation that there is a relationship between the cleanliness of nails, hands and feet with Contact Dermatitis.

3.3 Relationship of Environmental Sanitation (Means of Water) with the Event of Contact Dermatitis.

Table 3.3: Distribution of Respondents According to Relationships of Environmental Sanitation (Water Facilities) and Events Contact dermatitis at the Rantepao Health Center, North Toraja.

Water Facilitis	Contact Dermatitis Events						Total	ρ value
	Suffer		Not Suffer					
	Freq.	Perc.	Freq.	Perc.	Freq.	Perc.		
At Risk	51	72,9	0	0,0	51	62,2		
Do not risk	19	27,1	12	100	31	37,8	0,000	
Total	70	100	12	100	82	100		

Source: Results of data processing, 2018

Table 5.12 shows that of the 70 respondents who had water facilities at risk, there were (72.9%) who suffered from Contact Dermatitis and (0.0%) who did not suffer from Contact Dermatitis. While respondents who have water facilities that are not at risk, there are (27.1%) who suffer from Contact Dermatitis and (100%) who do not suffer from Contact Dermatitis.

After being tested using the Chi-square test obtained ρ value $0,000 < \rho$ standard value (0.05) means that it is significant so that H_0 is rejected and H_a is accepted with the interpretation that there is a relationship between water facilities and Contact Dermatitis.

3.4 Relationship of Environmental Sanitation (Means for Putting Waste) to the Event of Contact Dermatitis.

Table 3.4

Distribution of Respondents by Relationship Means to Put Waste into Events Contact dermatitis at the Rantepao Health Center, North Toraja.

Sarana untuk Menaruh sampah	Contact Dermatitis Events						Total	ρ value
	Suffer		Not Suffer					
	Freq.	Perc.	Freq.	Perc.	Freq.	Perc.		
At Risk	69	98,6	9	75,0	78	95,1		
Do not risk1	1,4	3	25,0	4	4,9		0,005	

Total 70 100 12 100 82 100

Source: Results of data processing, 2018

Table 5.13 shows that of the 70 respondents who had the means to place waste at risk, there were (98.6%) who suffered from Contact Dermatitis and (75.0%) who did not suffer from Contact Dermatitis. While respondents who have the means to place waste that is not at risk, there are (1.4%) who suffer from Contact Dermatitis and (25.0%) who do not suffer from Contact Dermatitis.

After being tested using the Chi-square test obtained p value $0.005 < p$ standard value (0.05) means that it is significant so that H_0 is rejected and H_a is accepted with the interpretation that there is a relationship between the means to put waste in Contact Dermatitis.

IV. Conclusion

Based on the results of the research and discussion, there is a relationship between personal hygiene (skin hygiene and foot, hand and nail hygiene) with the incidence of Contact Dermatitis in the work area of the Rantepao Health Center, Rantepao District, North Toraja Regency and there is a relationship between environmental sanitation (facilities water and facilities for putting garbage) with Contact Dermatitis in the working area of the Rantepao Health Center, Rantepao District, North Toraja Regency.

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