

Multifactorial Predisposition Related With Scabies Among Islamic Student

Fidya Anisa Firdaus¹, Adi Nurapandi², Jajuk Kusumawaty²

¹Jendral Achmad Yani University, Cimahi, Indonesia

²STIKes Muhammadiyah Ciamis, Ciamis, Indonesia

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Corresponding Author :

Fidya Anisa Firdaus

E-mail : fidyaanisaf@gmail.com

ABSTRACT

Background & Objective: Scabies is known as a contagious skin disease caused by mites that hide in the skin called *sarcoptes scabiei* var *ectoparasites hominis* and causes quite serious morbidity and severe bacterial infections. This bacteria easily breeds in damp or wet places, dense settlements and lack of sunlight such as Islamic boarding schools, dormitories and boarding schools. This study aims to analyze the factors related to the incidence of scabies in students at Islamic boarding schools.

Method: The research design used was correlational analytic with a cross-sectional approach. The population in this study were all students who were experiencing and had a history of scabies at the Miftahul Amin Islamic Boarding School from November to January. The number of participants involved in this study was 50 people with a purposive sampling technique. The research instruments used were questionnaires on knowledge, attitudes, personal hygiene behavior, and environmental sanitation. The data were processed using SPSS software version 20 and analyzed using the chi square test and double logistic regression. **Result:** The results of the bivariate analysis showed that all variables had a relationship with the incidence of Scabies, namely knowledge (pvalue = 0.03), attitude (pvalue = 0.03), personal hygiene behavior (pvalue = 0.04) and environmental sanitation (pvalue = 0.03). While the multivariate analysis showed that environmental sanitation was the most dominant factor causing scabies with a pvalue = 0.006. **Conclusion:** There is a significant relationship between knowledge, attitudes, personal hygiene behavior and environmental sanitation with the incidence of scabies in students at Islamic boarding schools.

Introduction

Scabies causes quite serious morbidity and severe bacterial infections (Engelman et al., 2019; May et al., 2019). Clinical symptoms can be seen polymorphically spread throughout the body and are more pronounced at night. Usually characterized by erythematous, papular, and itchy rashes (T. Cheng et al., 2020; Sara and Gebretsadik, 2018). Scabies can affect anyone of any age and economic status (May et al., 2019; Srinivas et al., 2019). Scabies transmission occurs through body and skin contact which generally occurs in densely populated areas such as nursing homes, Islamic boarding schools, nursing hospitals, and prisons (Cut et al., 2020; Park, 2019). Scabies is not dangerous to humans, but it is very disturbing to comfort and reduces activity and productivity due to its main symptoms, namely itching (Cheng, Mzahim, Alsugair, et al., 2020). The prevalence of scabies is recorded at 300 million patients per year worldwide (Badeso, Ferede, & Kalil, 2019; Haque et al., 2019). The incidence of scabies in Indonesia is still quite high, the lowest in North Sulawesi and the highest in West Java. According to data from the Ministry of Health of the Republic of Indonesia in 2014, the prevalence of scabies in Indonesia has decreased from year to year. In 2008 the prevalence of scabies was 5.60% - 12.96%, in 2009 it decreased to 4.9-12.95%, then in 2015 it decreased again to 3.9 - 6%, then in the year (Yudhaningtyas, 2018). Indonesia as the country with the largest Muslim population in the world, has 14,798 Islamic boarding schools with a fairly high prevalence of scabies.

Students have low habits of clean and healthy living behavior, including not washing their hands before eating, changing bed sheets more than 3 weeks, hanging clothes after use, using 1 towel for 2 people, using prayer equipment alternately. They also stated that they borrow clothes and towels from each other because they prioritize the value of togetherness. Their dormitory environment is also fairly unhygienic, one room is occupied by 10-20 students. They sleep together by placing mattresses on the floor and after waking up they just stack the mattresses and put them in the corner of the room, and their clothes are just hung and mixed with the clothes of their roommates. Seen from the entrance to the dormitory, there are trash bins that have not been cleaned. Therefore, researchers are interested in examining what factors influence the occurrence of scabies.

Objective

The aim of this study was to analyze factors related to the incidence of scabies.

Method

The research design used was analytical observational with a cross-sectional approach. The population in this study were all students who were experiencing and had a history of scabies. The sampling technique used purposive sampling technique. Respondents in the study were 50 people. The study was conducted at the Miftahul Amin Islamic Boarding School from November to January. The inclusion criteria for this study were students who were scabies sufferers, students with a history of scabies, students who lived permanently at the Islamic boarding school and were willing to be respondents. The exclusion criteria for this study were students who were being treated in the Hospital and students who were undergoing quarantine. The dependent variable in this study was scabies and the independent variables were knowledge, attitudes, personal hygiene behavior and environmental sanitation. Data collection used 4 types of questionnaires, namely questionnaires on knowledge attitudes,

personal hygiene and environmental sanitation. The questionnaire has been tested for validity and reliability with Cronbach Alpha values for all questionnaires more than 0.6. The data was processed using SPSS software version 20 and analyzed using the Chi Square test. And multivariate analysis using multiple logistic regression analysis.

Results

a. Sociodemographic Data

TABLE 1. Sociodemographic Data

NO	Variable	Category	Frequence	Percentage
1	Age	< Average	33	66.0
		> Average	17	34.0
		Jumlah	50	100.0
2	Gender	Male	27	54.0
		Female	23	46.0
		Amount	50	100.0
3	Education	School	36	72.0
		No School	14	28.0
		Amount	50	100.0
4	Length of Stay	< 1 Year	23	46.0
		>1 Year	27	54.0
		Amount	50	100.0

Based on the table above, data shows that the majority of respondents are under the average age, which is 33 respondents (66%). The majority of respondents are male, which is 27 respondents (54%). Most respondents are currently studying, which is 36 respondents (72%). And most respondents have lived in Islamic boarding schools for more than 1 year, which is 27 respondents (54%).

b. Analisis Univariat

TABLE 2. Frequency distribution of respondents based on independent variables

No	Variable	Category	F	%
1	Knowledge	Good	22	44.0
		Poor	28	56.0
		Amount	50	100
2	Attitude	Positive	19	38,0
		Negative	31	62,0
		Amount	50	100
3	Personal Hygiene	Positive	14	28,0
		Negative	36	72,0
		Amount	50	100
4	Environmental Sanitation	Healthy	20	40,0
		Poor	30	60,0
		Amount	50	100

The results of the analysis of the distribution of respondents based on knowledge characteristics show that most students in Islamic boarding schools have less knowledge, namely 28 people (56.0%). While based on attitudes, the majority of respondents have negative attitudes, namely 31 people (62.0%). Based on personal hygiene characteristics, the majority of respondents have negative

personal hygiene behavior, namely 36 people (72.0%). While based on environmental sanitation, the majority of respondents have unhealthy environmental sanitation, namely 30 people (60.0%).

TABLE 3. Frequency distribution of respondents based on dependent variables

No	Category	F	%
1	Scabies	34	68,0
2	History of Scabies	16	32,0
	Amount	50	100

The results of the analysis of the distribution of respondents based on the dependent variable show that most of the students at the Islamic boarding school suffer from scabies, namely 34 people (68.0%).

c. Analisis Bivariat

TABLE 4. The relationship between independent variables and dependent variables at Miftahul Amin Islamic Boarding School

Knowledge	Scabies Occurrence						P value
	Scabies		History of Scabies		Amount		
	F	%	F	%	F	%	
Good	11	22	11	22	22	44	0.03
Poor	23	46	5	10	28	56	
Amount	34	68	16	32	50	100	
Attitude	F	%	F	%	F	%	0.03
Positive	9	18	11	22	19	38	
Negative	25	50	5	10	31	62	
Amount	34	68	16	32	50	100	
Personal Hygiene	F	%	F	%	F	%	0.04
Positif	6	12	8	16	14	28	
Negatif	28	56	8	16	36	72	
Amount	34	68	16	32	50	100	
Environmental Sanitation	F	%	F	%	F	%	0.03
Positive	8	16	12	24	20	40	
Negative	26	52	4	8	30	60	
Amount	34	68	16	32	50	100	

Based on table 4, it can be seen that the majority of students suffering from scabies have poor knowledge, namely 23 respondents (46.0%) and those who have good knowledge are 11 respondents (22.0%). The attitude of most students suffering from scabies is a negative attitude, namely 25 people (50%). While the personal hygiene carried out by most students suffering from scabies is negative personal hygiene, namely 28 people (56%). And the environmental sanitation of most students suffering from scabies is unhealthy, namely 30 people (60%).

Based on the results of the chi square test, the p value between knowledge and the incidence of scabies was $0.03 < 0.05$, so there is a relationship between knowledge and the incidence of scabies in students. Furthermore, the results of the chi square test between attitudes and the incidence of scabies showed 0.03, so

there is a relationship between attitudes and the incidence of scabies. The results of the chi square analysis between personal hygiene and the incidence of scabies obtained a p value of 0.04, which means that there is a significant relationship, likewise between environmental sanitation and the incidence of scabies there is a significant relationship because the p value is 0.03.

d. Analisis Multivariat

TABLE 5. the results of multiple logistic regression analysis between independent variables and dependent variables

Variable	B	S.E	Sig.
Knowledge	0,081	0,267	0,776
Attitude	0,308	0,331	0,377
Personal hygiene	-0,015	0,225	0,943
Environmental Sanitation	-0,816	0,269	0,006
Constant		0,238	0,000

Based on the results of multiple logistic regression analysis between the dependent variable and the independent variable, it was found that environmental sanitation has the most dominant influence on the incidence of scabies in students, as evidenced by a significant value of 0.006. with a β value of -0.816. which means that environmental sanitation has a greater influence among other factors.

Discussion

The majority of respondents in this study were under the average age. And most of them were male. Most of the respondents were studying at junior high school level. And most of the respondents had lived in the Islamic boarding school for more than 1 year. Based on the results of the study, it was found that there was a relationship between knowledge and the incidence of scabies with a p value of 0.03. This means that a person's knowledge can support someone to avoid diseases, especially infectious diseases. From the data obtained by the researcher, the majority of the students' knowledge level was in the poor category. This was due to the lack of information received. While in the dormitory, students were not allowed to bring cellphones and there was no electronic media such as television. So students could not access information about scabies skin disease from electronic media. Local health workers and Islamic boarding school administrators also did not provide sufficient information regarding the prevention of scabies skin disease transmission. The information obtained by the female students was only half-hearted and even misleading. Thus, providing information about scabies skin disease is very important for female students, because lack of information will make the transmission of scabies disease greater, especially since they live under one roof with many other female students, making the spread of scabies disease easier.

Knowledge is something that is known by people or respondents related to health-sickness or health, for example: about diseases (causes, how they are transmitted, how to prevent them), nutrition, sanitation, health services, environmental health, family planning, and so on (Notoatmodjo, 2014). Knowledge can be influenced by age, experience, information obtained, formal education, social and culture and so on. Knowledge about something is the beginning that influences

an attitude that may lead to an action. This result is in line with research conducted by Harmawati (2018) at the Miftahul Nurul Huda Islamic Boarding School in Magetan Regency, as many as 52.3% of respondents had insufficient knowledge of clean and healthy living behaviors so that many students contracted scabies.

Based on the results of the study, it was found that there was a relationship between attitudes and the incidence of scabies at the Miftahul Amin Islamic Boarding School in Ciamis Regency with a p value of 0.03. From the data obtained by the researcher, the majority of students' attitudes were categorized as negative. The tendency for negative attitudes of students in Islamic boarding schools can be influenced by the students' lack of knowledge. This lack of knowledge influences the decision-making process of students in acting to prevent the transmission and spread of scabies. A person's attitude can be formed not only from the outside but more from the experiences and emotional factors experienced by a person such as a person's knowledge and perception. If a person has insufficient knowledge in understanding the spread of scabies, then the person's perception will be as if they do not care about the widespread spread and dangers caused by this scabies disease.

The attitude of students in Islamic boarding schools plays a very important role in preventing scabies in the Islamic boarding school environment which requires personal hygiene and healthy behavior. Attitude usually plays a major role in shaping behavior. This result is in line with Ma'rufi's research (2018) There is a Relationship between the Attitude of Students to the Incident of Scabies in Islamic Boarding Schools in Lamongan Regency.

Furthermore, based on the results of the study, it was found that there was a relationship between personal hygiene behavior and the incidence of scabies with a p value of 0.04. From the data obtained by the researcher, the majority of personal hygiene behavior of students was categorized as negative. This could be because the majority of students still do not care about personal hygiene and the environment of the Islamic boarding school. Students in the dormitory often borrow towels from each other, often hang piles of clothes, rarely clean their rooms and rarely wash floor mattresses. Students are also accustomed to bathing less than 2 times a day. This can exacerbate the transmission of scabies skin disease.

Human behavior or activities can be observed both directly and unobserved by outsiders. Health behavior related to personal hygiene efforts is closely related to disease prevention efforts. Examples of health behaviors that can be done include bathing habits, washing hands and feet, and cleanliness of clothes (Wochebo, Haji, & Asnake, 2019). A person's personal hygiene determines their health status consciously in maintaining health and preventing diseases, especially skin disorders. Ways to maintain health include maintaining skin cleanliness, habits of washing hands and nails, frequency of changing clothes, sharing towels, and frequency of changing bed sheets. These results are in line with research conducted by Pertiwi (2020) There is a Relationship between Santri's Behavior Regarding Personal Hygiene and the Incidence of Scabies at the X Islamic Boarding School in Semarang City in 2019.

Based on the results of the study, it was also found that environmental sanitation and the incidence of scabies had a significant relationship with a p value of 0.03. These results are in line with research conducted by Afienna (2020) that there is a relationship between environmental sanitation and the incidence of scabies at the Marifatul Ulum Bringin Islamic Boarding School, Ngawi Regency. According to the researcher's opinion, the poor sanitation conditions of the Islamic boarding school

environment have increased the spread of scabies among students at the Islamic boarding school. There are 8 rooms with an area of 10x7 m² and different places, some on the front 1st floor, the back 1st floor, and on the 2nd floor. In each room there is ventilation but it cannot be opened so that sunlight cannot enter the room directly and air cannot enter and exit freely, this makes the dormitory room humid which makes it easier for mites or parasites to breed. Then added to the habits of students at the Islamic boarding school who do not maintain the cleanliness of their rooms so that the dormitory rooms look messy, items that are not put in their place and their clothes are hung and mixed with the clothes of other students and folding mattresses that are only placed in the corner of the dormitory room. These things further increase the spread of the chain of scabies disease in Islamic boarding schools.

From the results of the multivariate analysis of table 5, it was found that there was a dominant factor among the factors causing the occurrence of scabies in Islamic boarding school students, namely environmental sanitation with the highest significant value of 0.006, which means that the environmental sanitation variable has the greatest influence on the occurrence of scabies, this is influenced because environmental sanitation is the health status of an environment that affects the occurrence of a disease.

Conclusion

From the above research, it can be concluded that there is a significant relationship between knowledge, attitudes, personal hygiene behavior and environmental sanitation with the incidence of scabies in students at the Miftahul Amin Islamic Boarding School, Ciamis Regency, with environmental sanitation being the most dominant factor. It is recommended for the foundation to improve the facilities of the Islamic boarding school to be more adequate. The foundation and its administrators can also hold routine activities to clean the dormitory area in order to break the chain of transmission of scabies skin disease.

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