Journal Of Health Science Community
ISSN: 2714 7789 (print) – 2745 3561 (online)
DOI : https://doi.org/10.30994/jhsc.v6i3.329
Vol. 6 No. 3 February 2026 , Pages 189-198

The Effectiveness Of Health Education On Personal Hygiene In Improving Knowledge And Attitudes Toward The Prevention Of Scabies Among Students At Assa'idiyyah Islamic Boarding School In Kediri City

Ilmia Larashati [1] , Reny Maretasari [2]
[1,2]Bachelor Program in Public Health, Faculty of Health Sciences,Universitas STRADA Indonesia
[*]**Corresponding author :** ilmiagurah@gmail.com

ABSTRACT

Scabies is a contagious skin disease caused by *Sarcoptes scabiei var. hominis* . This condition represents a significant health problem as it can lead to severe morbidity and, if left untreated, may even result in mortality. The high prevalence of scabies in Islamic boarding schools is influenced by the lack of knowledge and attitudes among students regarding personal hygiene. This study aims to determine the effectiveness of health education on personal hygiene in improving knowledge and attitudes toward the prevention of scabies among students. This research employed a pre-experimental design with a one-group pre-post test approach. A total of 63 respondents were selected using stratified random sampling. The results showed that prior to the health education intervention, 92.2% of respondents had poor knowledge and 85.7% had poor attitudes. After the intervention, good knowledge increased to 44.1% and good attitudes increased to 48.9%. Data analysis using the Wilcoxon Sign Rank Test revealed a *p-value* of 0.000 (<0.05), indicating a significant difference in students' knowledge and attitudes before and after the intervention. The implementation of health education proved effective in enhancing students' knowledge and attitudes regarding personal hygiene and can serve as an important source of information in the prevention of scabies in Islamic boarding schools.

Keywords : **Attitudes, Health education, Knowledge, Personal hygiene, Scabies**

INTRODUCTION

Scabies is a skin disease that affects health problems because it is the main cause of pain and if left unchecked, it can cause death. Scabies is an infectious skin disease caused by Sarcoptes Scabiei Var Homonis. (Yankees 2022). Scabies is still a topic of health problems for many people, especially for people who do not pay attention to hygiene and health. This disease can be transmitted through direct and indirect contact (Husna, Asriwati, and Maryanti 2023).

According to the World Health Organization (WHO) in 2021, the prevalence associated with scabies is estimated to be between 0.2% to 71%, and is predicted to affect more than 200 million people every time scabies occurs, and reaches 300 million cases per year, while the incidence of scabies worldwide and according to calculations that have carried out the highest scabies occur in countries with tropical and subtropical climates and densely populated regions such as Africa 3.4%, Asia is 5.6%, South America, the Caribbean, Central Australia and Indonesia, while the prevalence of scabies in India is 20.4% and Nigeria is 28.6%. In industrialized areas of Germany, scabies occurs sporadically or in the long-term endemic form (World Organization, 2021).

Based on data from the Indonesian Ministry of Health, the prevalence of scabies in 2017 was recorded at 10.60%-12.96%, followed by 7.9%-9.95% in 2018 and 4.9%-6.95% in 2019 (Ministry of Health R1, 2019). In East Java Province, there are 72,500 (0.2%) cases out of a population of 36,269,500 people who suffer from Scabies. (Ministry of Health of the Republic of Indonesia 2020). Based on data from the Assa'idiyyah Islamic Boarding School Poskestren, Kediri City, in 2024, there will be 25 cases of scabies skin disease. The highest cases of scabies in 2024 will occur at the Assa'idiyyah Islamic Boarding School. Islamic boarding schools that are included in the Working Area of the Pesantren 2 Health Center in Kediri City.

Factors that affect the development of scabies include an unclean environment and personal hygiene. Personal hygiene factors include knowledge about skin hygiene. Skin hygiene can be determined by the frequency of showers in a day, the use of soap when bathing, hand and nail care, and washing clothes, towels, and sheets. Poor personal hygiene can make the body susceptible to various diseases such as skin diseases and infections (Samosir, Sitanggang and MF, 2020; Novitasari et al., 2021).

In addition, Islamic boarding schools are also at high risk of infecting the population. Pondok Pesantren is a special name for an Islamic educational institution in Indonesia and can be one of the risk factors for the transmission of scabies disease (Yunit et all, 2021). The high prevalence of scabies in Islamic Boarding Schools is influenced by the lack of knowledge and attitudes of students about scabies (Suci Wildati et all, 2022).

One of the efforts to prevent scabies is health education. Health education uses methods that can increase a person's knowledge of understanding about a disease to change the behavior of an unhealthy person (Sri Mulyani, 2020). This health education aims to improve a person's knowledge and attitude in helping to carry out the prevention of scabies (Abdullah et all, 2020).

METHODS

This study uses the Pre-Experimental research method. Said to be Pre-Experimental Design because this design is not yet a real experiment. The type of design used by the researcher is Pre-Test and Post-Test in one group (One Group Pre-Post Test Design), which is to take one measurement.

RESEARCH RESULTS

1. Frequency distribution of respondent characteristics by age.

Table 1. Respondent Characteristics

Age	Frequency	Percent (%)
13 Years	15	23.8
14 Years	15	23.8
15 Years	15	23.8
16 Years	10	15.9
17 Years	6	9.5
18 Years	1	1.6
19 Years	1	1.6
Quantity	63	100

Source: primary data, 2025

Based on table 1 above, it is known that most respondents aged 13-15 years were 71.4%.

1. Frequency Distribution of Respondent Characteristics by Gender

Table 2. Characteristics of Respondents by Gender

Gender	Frequency	Percentage (%)
Man	31	49.2
Woman	32	50.8
Gender	Frequency	Percent (%)
Male	31	49.2
Women	32	50.8
Quantity	63	100

Source: primary data, 2025

Based on table 2, it is known that the data obtained shows a good balance. Of the total 63 respondents, 31 people (49.2%) were male and 32 people (50.8%) were female, this reflects fair representation between genders in this study.

A. Distribution frequency characteristics of respondents' level of knowledge before Health Education was carried out.

Table 3. Characteristics of Respondents Based on Level of Knowledge Before Health Education.

Indicator	**Frequency (F)**	**Percentage (%)**
Not enough	58	92.2
Enough	5	7.9
Good	0	0.00
Total	63	100

Source : primary data, 2025

Based on Table 4.3 shows that almost all respondents before being given Health Education had a low level of knowledge, as much as 92.2 % .

B. Frequency distribution of characteristics of respondents' knowledge level after Health Education.

Table 4. Characteristics of Respondents Based on Level of Knowledge after Health

Indicator	**Frequency (F)**	**Percentage (%)**
Not enough	0	0.00
Enough	10	15.9
Good	53	84.1
Total	41	100

Education

Source: primary data, 2025

Based on table 4, it is known that the majority of respondents after being given health education had a good level of knowledge, as much as 84.1 % .

C. Frequency distribution of characteristics of respondents' attitude levels before health education was carried out.

Table 5. Characteristics level of responsiveness based on before health education was carried out.

Indicator	Frequency (F)	Percentage (%)
Not enough	54	85.7
Enough	9	14.3
Good	0	0.00
Total	63	100

Source: primary data, 2025

Based on Table 5, it is known that most of the respondents before being given health education knowledge level is lacking as much as 85.7%.

D. Frequency distribution of characteristics of respondents' attitude levels after health education.

Table 6. Characteristics of Respondents' Attitude Level after Health Education Based on Table 6, it is known that the majority of respondents after being given health education had a good level of knowledge, as much as 88.9%.

E. Analysis Results of the Intervention on the Effectiveness of Knowledge Education for Students at the Assa'idiyyah Islamic Boarding School in Kediri City before and after health education was carried out

Table 7. Results of the Intervention on the Effectiveness of Knowledge Education for Students at the Assa'idiyyah Islamic Boarding School in Kediri City before and after health education was carried out.

		Post-test knowledge		Total	p
		Enough	Good		
Pre-test knowledge	Not enough	10	48	58	0.00
	Enough	0	5	5	
Total		10	53	63	

Source: primary data, 2025

Based on Table 4.11, it is known that there was a change in the knowledge of students at the Assa'idiyyah Islamic Boarding School in Kediri City before and after being given health education. The results of the study above used the *Wilcoxon Sign Rank Test* with *a p-value* of 0.00 (a<0.05) so that H0 was rejected, meaning there was a difference . Before And After done Education Health regarding personal hygiene towards increasing knowledge in preventing scabies.

DISCUSSION

F. The Influence of Knowledge Level Before & After Personal Hygiene Health Education on Scabies Prevention at Ass'aidiyah Islamic Boarding School, Kediri City.

Based on the results of the study, almost all respondents before being given Health Education got the results of a low level of knowledge of 58 respondents (92.2 %). This result is in line with the research conducted by (SaThierbach et al. 2023) with the title "the impact of personal hygiene health education on increasing knowledge, attitudes and behavior of scabies prevention with the pretest results obtained the results of the majority of students having sufficient knowledge of Scabies prevention, namely 42 students (41.2%) of the total number of students.

The importance of maintaining personal hygiene aims to improve health, maintain personal hygiene, prevent disease , increase self-confidence and comfort (Irnawati et al., 2018). The lack of information obtained causes a lack of knowledge among adolescents. The environment that is less available to access information, age, experience, becomes an obstacle in gaining better knowledge. People's beliefs about certain things are influenced by habits that are often carried out and then believed to be the culture of a society. These habits believed to be culture are not entirely scientifically true so they are called myths in culture.

education is a form of independent nursing action to help clients, both individuals and groups. and public in overcome problem Health education not only provides information but also helps the community understand health issues. And change behavior they For increase his health level. (Suprayitno and Huzaimah 2020).

Therefore , the researchers assume that the low level of knowledge at the beginning of the study reflects an urgent need to provide more targeted and sustainable health education. Health education is not just about conveying information, but also... help shape awareness new in the respondents, that maintaining personal hygiene is an important part of efforts to maintain health together

Based on the research results, the measurement results of students after being given Health Education. Most of the respondents who were given the post-test experienced changes or increases in their level of knowledge. There were 53 respondents (84.1%) who had good knowledge. There was an increase in knowledge which was also in line with the research conducted (SaThierbach et al. 2023) . The post-test results showed that the majority of students had good knowledge, namely 70 students (68.6 %) of the total. In this study, it was found that the most common way of providing health improvement in personal hygiene was that personal hygiene influenced information about preventing scabies.

The purpose of providing Health Education according to (Damayanti 2021) is to increase health knowledge about behaviors that can affect health, increase healthy attitudes and behaviors such as nutritious food, regular exercise, and avoiding unhealthy behaviors that can harm health, increase a sense of responsibility for health, especially for oneself and others.

According to (Susanti 2020) , knowledge is important because it improves health. People who have knowledge will maintain cleanliness to avoid disease, and conversely, a lack of personal hygiene knowledge can lead to someone being unhygienic and can lead to health problems. According to (Sitarani et al. 2020), behavior based on knowledge is far better than behavior that is not based on knowledge at all. However, personal hygiene behavior does not occur by chance, but is a learning process when individuals learn about the positive and negative impacts of behavior related to personal hygiene (Nata and Yuanita 2022) . Researchers believe that this active and participatory learning experience plays a significant role in the success of increasing knowledge. In addition to intervention factors, this increase in knowledge

is also influenced by the surrounding environment, daily experiences, and encouragement from those closest to them, such as peers, teachers, and caregivers at the Islamic boarding school. These external factors strengthen the students' understanding, especially because their daily routines involve many personal hygiene practices. The more frequently information is received and practiced, the stronger its influence on thought patterns and behavior. With increasing knowledge, students are increasingly aware that maintaining personal hygiene is not just about external appearance, but is an important part of maintaining body health and preventing diseases such as scabies.

The influence of attitude levels before and after Personal Hygiene Health Education on scabies prevention at the Ass'aidiyah Islamic Boarding School in Kediri City.

Results Observations before being given Health Education on personal hygiene regarding scabies prevention showed that almost all respondents received results with a low attitude level of 54 respondents (85.7 %). Scabies is a highly contagious disease caused by infestation and sensitization of the mite Sarcoptes scabiei var hominis, an obligate parasite in humans (Grodner et al., 2021). Scabies is a skin disease that is endemic in tropical and subtropical climates, for example in Africa, central and southern Australia, and Asia. Morphologically, the agent is a small mite, its abdomen is flat, its back is convex and oval in shape. The cycle of this mite is after copulation (mating) that occurs on the surface of the skin, the male will die, but the fertilized female mite makes a tunnel in the stratum corneum and lays its eggs. The cause of skin infection is due to such a reproductive process that penetrates the skin (Ubaidillah, 2021).

One way scabies is transmitted is due to poor environmental sanitation, influenced by a lack of good personal hygiene. Environmental sanitation is the internalization of a clean living space, which must be maintained, starting from the yard, drainage channels and surrounding roads, waste management, toilet cleanliness, and so on. Furthermore, the source of clean water used is also a crucial concern and should meet standards, being colorless, odorless, and tasteless. Good environmental sanitation is influenced by the quality of each person's personal hygiene, which many people still ignore because such things are considered part of a person's habits (Samosir, 2020).

Researcher's assumption Adolescents are an age group that is vulnerable to scabies due to a lack of awareness and knowledge about personal hygiene, and is influenced by daily habits and the living environment. The respondents' living environment has poor sanitation, such as sleeping conditions, waste management, and water sources that do not meet standards, which also exacerbates the risk of scabies transmission.

After Health Education, Most respondents experienced an increase in attitude. Most respondents with a good attitude were 56 respondents (88.9%). This is indicated by the Respondents being able to understand and carry out: factors that influence scabies, scabies transmission, scabies prevention in the questionnaire that has been given. This is in line with research (Andriani. R 2022) . States that the influence of providing health education about scabies on knowledge of scabies is found. Good knowledge possessed by an individual does not guarantee a positive attitude. In determining attitudes, apart from being produced by knowledge, this is also influenced by thoughts, beliefs and emotional situations in the individual (SaThierbach et al. 2023) .

Attitudes toward scabies also play a crucial role in the prevention and management of the disease. This study revealed that community attitudes toward personal hygiene and scabies prevention significantly influence the incidence of the disease. In Fiji, community attitudes toward mass drug administration for scabies control were generally positive, although there were concerns about side effects and hesitation to participate (Mitchell et al. 2020) .

Researchers assume that providing health education can have a positive impact on changing adolescents' attitudes towards scabies prevention. This is evident in the significant

improvement in attitudes after the intervention. Most respondents demonstrated improved attitudes, indicated by increased awareness of the importance of maintaining personal hygiene, understanding how scabies is transmitted, and understanding preventive measures. These changes likely do not occur instantly, but rather through a process of understanding the material presented in health education activities. When individuals receive information that is easy to understand, relevant to their condition, and delivered in an approach that touches on both emotional and logical aspects, it is highly likely that the information will be internalized and influence their attitudes in their daily lives **.**

Analysis of the Influence of Knowledge and Attitude Levels Before and After *Personal Hygiene Health Education* on *Scabies* at the Assa'idiyyah Islamic Boarding School in Kediri City

Based on the results of the analysis of the description above, there are differences in the results before and after being given health education, respondents experienced an increase in knowledge and attitudes after being given health education intervention. This is evidenced by changes in indicators at the level of knowledge before and after being given health education, almost all respondents had a poor level of knowledge (92.2%), while after being given health education there was an increase. Most respondents had a good level of knowledge (84.1%). In the category of attitude level before being given health education, almost all respondents had a poor attitude (85.7%), after being given health education, most respondents experienced an increase in the level of good attitudes (88.9%).

Based on The results of statistical analysis using the Wilcoxon test of students' knowledge before and after being given health counseling showed that changes in the knowledge and attitude categories before and after being given health counseling obtained a Z score for the knowledge category of -6.919, for the attitude category the Z score was -4.142 with a P value of <0.000 ($p<0.05$) so that Ho was rejected, meaning there were differences in knowledge and attitudes about Personal Hygiene about scabies before and after being given health counseling. This is in line with research (SaThierbach et al. 2023) based on the Wilcoxon test on data, perspectives, and behavior to prevent scabies. In the information variable for anticipating scabies, there were 72 students who experienced an increase, 10 students experienced a decrease, and 20 students who had the same value between the pretest and posttest from a total of 102 students. In the variable of Scabies disease prevention attitude, 34 students experienced an increase, 17 students experienced a decrease, and 51 students had the same value between the pretest and posttest from a total of 102 students. In the variable of Scabies disease prevention behavior, 49 students experienced an increase, 29 students experienced a decrease, and 24 students had the same value between the pretest and posttest from a total of 102 students. The results of the analysis showed a sig value of the prevention knowledge variable of 0.000, prevention attitude of 0.001, and prevention behavior of 0.004 and can be said to be large ($p <0.05$) . In this study, it tends to be reasonable that there are differences in the preparation of early Hygiene welfare training through powerpoint slides, simulations, and Xbanner media on students' attitudes and behavior in preventing Scabies. In this study, it was found that the most common way of providing improved personal hygiene health affects information about Scabies disease prevention. The side effects of the pretest and posttest showed an expansion of information about scabies prevention. This is consistent with research conducted by Yulia (2023). Tham et al., (2020) stated that knowledge gained through education through media, whether in the form of videos or images, can accelerate and more effectively absorb information because the educational process utilizes the senses of sight and hearing. Furthermore, simulations conducted by researchers can increase knowledge compared to those conducted solely through the sense of sight.

The existence of Attitude changes indicate that the information conveyed through health education has been well-received, as shown in the results of this study, which showed that the

majority had positive attitudes. This is also relevant to Hadi's (2022) research, which stated that there was a difference in attitudes after effective health promotion, which could change the personal hygiene attitudes of students in the PP environment.

. Experience A person also influences the formation of attitudes because the experience they have can determine the strength of the attitude change that a person has, this is supported by providing health promotion through direct simulations to students regarding the prevention of Scabies disease In addition to environmental influences can also influence a person's attitude, especially peers, in addition to teachers or kyai, have a significant influence on students who attend Islamic boarding schools. Therefore, it is possible to influence other friends and vice versa if a friend has a bad attitude about personal hygiene (Awaliyah et al 2023).

Change What's happening isn't just evident in statistical data alone, but also illustrates a process of awareness within the students. They're starting to care more about personal hygiene and are demonstrating a more positive attitude toward maintaining their daily health. Researchers believe that when information is presented in an engaging and easy-to-understand manner, especially through the use of appropriate media, the learning process becomes more effective. Students not only "know" but also begin to "want" and "be able" to apply it in their daily lives. Furthermore, researchers also assume that the surrounding environment plays a significant role in this change. In Islamic boarding schools, peer interactions, the role of the ustaz or kyai (Islamic teacher), and daily routines significantly influence attitude formation. When one person begins to adopt clean living habits, others tend to follow suit. This is the unique strength of a health education approach that not only touches individuals but also fosters a healthier shared culture **.**

CONCLUSION

1. The results of the research before health education were carried out that almost all respondents had a level of knowledge as much as 92.2%, while after being given health education there was an increase in most of the respondents in the level of knowledge as much as 44.1%,
2. The results of the study before education were carried out that almost all respondents had a low attitude level of 85.7%. Meanwhile, after being given health education, there was an increase in most of the respondents' level of good attitude by 48.9%.
3. Based on the analysis of *the Wilcoxon* test, a P *Value* of 0.00 <0.05 was obtained, meaning that HO was rejected, HI and H2 were accepted, so that there were differences before and after *Personal Hygiene health education* was carried out on increasing knowledge and attitudes in scabies prevention in students of the Ass'aidiyah Islamic boarding school in Kediri City.

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