



Research Article

Relationship between Santri's Personal Hygiene to the Incidences of Scabies in Islamic Boarding School

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DOI: 10.33086/mtphj.v9i1.5749

Article History:

Received, March 11th, 2024

Revised, August 15th, 2024

Accepted, March 18th, 2025

Available Online: March 30th, 2025

Please cite this article as:

Ulfa, Maria, et al "Relationship between Santri's Personal Hygiene to the Incidences of Scabies in Islamic Boarding School" Register: Medical Technology and Public Health Journal, Vol. 9, No. 1, pp. 124-128, 2025

ABSTRACT

Background: Skin diseases are often found in Indonesia, such as scabies which is caused by parasites. Scabies causes damage to the skin and discomfort due to itching. This scabies disease is not paid enough attention by students in Islamic boarding schools, the causes are poor environment, poor individual cleanliness, lack of knowledge so that there is a risk of transmission of scabies disease. Therefore, this is a priority that needs to be considered and addressed in order to minimize the risk of transmitting scabies in the boarding school environment. **Research objective:** to analyze the correlation between the level of individual cleanliness knowledge and scabies in boarding school. **Method:** This research was from February to August 2023. This type of research was analytical observational survey study with a cross sectional approach. Data collection uses questionnaires. Sampling was total sampling, there were 33 samples. Data processing and analysis uses chi square analysis. **Results:** From 33 santri, the Chi Square analysis show that the value of $p=0.009$ ($p<0.05$), which means that there is a significant correlation between the level of individual cleanliness knowledge and scabies in students at Islamic boarding schools. **Conclusion:** The level of knowledge of students about individual cleanliness is one of the factors that can influence the transmission of scabies in the Islamic boarding school environment. So the level of knowledge of students must be increased so that it can be a way to prevent the transmission of scabies.

Keywords: Knowledge, individual cleanliness, santri, scabies

INTRODUCTION

Scabies is a problem that impress people of all ages, races and socioeconomic levels. Prevalence varies considerably from 4% to 100% of the total population in some underdeveloped countries. In developing countries, this disease affects children, the elderly and people with weakened immune systems (Wheat et al, 2019). In developing countries, an epidemiological study showed that the incidence of scabies in Asia is high, with approximately 17% in East Timor and 31% in Malaysia (Karinna, 2017). Scabies is common in tropical countries and remains a health problem to be monitored (Pratiwi, 2020; Engelman et al., 2019). Scabies is caused by the tick *Sarcoptes scabiei*.



Sarcoptes scabiei moves from an infected body to a new host under the influence of odor and stimulation of body heat. To receive sufficient stimulation, a person must live in a place with very close skin-to-skin contact, such as an overcrowded Islamic boarding school. An Islamic boarding school is an institution that provides a number of rooms that are shared because the students have different types of individual cleanliness.

This makes them prone to itching. A pander appeared that *Sarcoptes scabiei* contaminated almost 10% of the general populace and 59% of children in rural areas (Karinna, 2017). A think about conducted in a Madrasah in Dhaka, Bangladesh too detailed that scabies is exceedingly endemic in Madrasahs in 2011, with 98% of 492 Madrasah students analyzed with scabies (Talukder, 2013). Observance of individual cleanliness is one way to prevent infectious diseases to improve health at an individual level (Afienna, 2018). These habits include the habit of regularly washing hands with soap, cleaning the body with a bath, brushing teeth and wearing clean clothes (Ardiati, 2020). Poor individual cleanliness habits can lead to dangerous and infectious diseases (Atikah, 2012). Therefore, this researcher was drawn to conduct a study on the relationship between santri individual cleanliness and scabies in a Muslim boarding school.

MATERIAL AND METHODS

The research was analytical observation with cross-sectional design and general sampling of Islamic Boarding School at Bangkalan Madura, from February to August 2023. A total of 33 (15 women and 18 men) respondents participated in this research and filled out the questionnaire. The inclusion criteria for this study were both middle school (14-15 years old) and high school (16-18 years old) males and females living in Bangkalan Islamic Boarding School with symptoms of skin diseases and being diagnosed with scabies through anamnesis and dermatological examination by a Dermatologist. The incidence of scabies in this study will be related based on the individual cleanliness knowledge. The questionnaire about in assessing individual cleanliness knowledge were frequency of bathing less than 2 times a day; sharing or using friends' item or clothes alternately; not drying towels, clothes, bed sheets, mattresses under the sunlight. The data obtained was then analyzed statistically using the Chi- square test. The ethical approval from the ethics committee of the Faculty of Medicine, Universitas Nahdlatul Ulama Surabaya is No. (0279/EC/KEPK/UNUSA/2023).

RESULTS AND DISCUSSION

Table 1. Characteristics of Respondents

Characteristics	Total	Percentase
Gender		
Male	18	54,5%
Female	15	45,5%
Age(year)		
14	1	3,0%
15	10	30,3%
16	16	48,5%
17	4	12.1%
18	2	6,1%
Grade in School		

VIII middle school	3	9,1%
IX middle school	12	36,4%
X high school	10	30,3%
XI high school	8	24,2%
Total	33	100%

Table 2. Santri's cleanliness and the Incidences of Scabies in Islamic Boarding School

Dependent		Scabies				Total	%
		Positive		Negative			
Independent		Total	%	Total	%		
Knowledge Level							
Poor		16	48,5%	2	6,1%	18	54,6%
Good		7	21,2%	8	24,2%	15	45,4%
Total		23	69,7%	10	30,3%	33	100%
Chi Square Test = 0,009 (p<0,05)							

From the data, we were collected 33 santri. From this consider, 23 understudies were diagnosed with scabies. The comes about of Chi Square investigation appear that the esteem of $p=0.009$ ($p<0.05$), which implies that there's a noteworthy relationship between individual cleanliness information and the prevalence of scabies among Muslim private school students. Islamic Boarding School with least offices, there's no clothing benefit at the Islamic boarding school, so each understudy must wash their claim dress. There's too no wellbeing centre, so wiped out understudies once in a while recoup and have negligible information of scabies prevention strategies. In expansion, understudies too share towels, rest in the same room, and dress each other. Students who share a room may be affected by the individual cleanliness practices of other students. This study revealed that there was a relationship between students' individual cleanliness knowledge and the event of scabies in a Muslim boarding school. These comes about are consistent with the hypothesis that scabies can be transmitted on the off chance that understudies don't get it individual cleanliness. Another theory stated that students are prone to meld due to differences in their individual cleanliness. One study found that students' lack of knowledge about hygiene can increase scabies (Karinna, 2017).

The study found that more than 50% of students were diagnosed with scabies. This finding is similar to an epidemiological study (2013) that showed that the prevalence of scabies in developing countries in Asia is high, at approximately 17% in schools in East Timor and 31% in orphanages in Malaysia (Mounsey et al., 2013). Massive outbreaks of scabies were reported in facilities that housed large numbers of people in one place (Islamic boarding schools, orphanages). With so many people living in the same place, scabies became widespread. These phenomena facilitate and often result in direct skin contact.

In this study, the reasons for the appearance of scabies may be due to the fact that students live in the same narrow room with other friends (close contact), so students with good individual cleanliness can be infected by friends who are suffering from scabies and friends who have poor knowledge of individual hygiene. The diagnosis of scabies is suspected because of the pruritus associated with the characteristic distribution and epidemiological history of the lesions. The onset is usually insidious and the patient complains of severe itching at night. Pruritus usually appears 4 to 6 weeks after initial infection, although many patients may not develop symptoms for up to three months, and some patients are never sensitized. This study showed that flower distribution and

lesion location in scabies are consistent with these theories. One study reported that the causes of affected scabies include itchy pimples, pustules, blisters, nodules, excoriation and crusting. Characteristic features of the spread of the lesion are preferred body areas, including the fingers, back and palm, armpit, periumbilical, genitals and soles of the feet (Wheat et al, 2019).

The results of this study are in accordance with the results of research conducted by Setyaningrum (2016), namely that there is a direct relationship between gender, physical environment and healthy clean living behavior on the prevalence of scabies. Likewise, another research revealed that the incidence of scabies is related to personal hygiene in Islamic boarding schools. According to the research, poor personal hygiene and the level of knowledge about individual cleanliness in boarding school Bangkalan is one of the factors that can increase the incidence of scabies. Every student and boarding school resident must understand the life cycle of mites as pathogens of scabies. The life cycle of *Sarcoptes scabiei* begins with the adult mite entering human skin and making a tunnel in the stratum corneum until the female mite finally lays eggs. *Sarcoptes scabiei* cannot penetrate deeper than the stratum corneum (Djuanda, 2017). Achieving this understanding can be obtained through education, both formal and informal. Education as a solution to preventing scabies is closely related to the level of knowledge. Knowledge about prevention, ways of transmitting the disease, and treatment efforts if infected with scabies has an impact on healthy living behavior that maintains personal and environmental cleanliness, which in turn is expected to be able to reduce or even eliminate the prevalence of scabies (Fannisa, 2020).

Scabies is a contagious skin infection caused by the female mite *Sarcoptes scabiei*. This disease occurs most frequently in tropical countries which are endemic countries for scabies. Scabies is also often found in areas that are densely populated and have low levels of hygiene. Many people ignore the cleanliness of themselves, their homes and their surrounding environment, even though they know that cleanliness is healthy. Scabies transmission occurs due to environmental factors and unclean behavior (Afriani B, 2017).

Maintaining cleanliness and healthy skin from conditions that can increase the risk of disease will greatly affect the quality of a person's personal hygiene. This is very important in maintaining health because dirty skin will make it easier for bacteria to grow so that it can affect health, especially skin diseases. The skin's function is to protect the body, regulate body temperature, excretion and others, therefore ideally it must be kept clean. Unclean skin conditions include unclean bathing habits, improper bathing frequency will cause scabies to infect more easily, especially on the fingers, thigh creases and others. Therefore, it is important to maintain skin cleanliness to avoid skin diseases caused by fungi, germs, parasites (Lubis, 2020).

CONCLUSION AND SUGGESTION

The conclusion of this consider, there is a relation between individual cleanliness knowledge and the prevalence of scabies among the students of Bangkalan Islamic Boarding School. It is hoped that this research can be continued by other researchers as an evaluation in this Islamic boarding school, specifically, hygiene quality control of school is related to scabies.

ACKNOWLEDGEMENT

We would like to thank the Research and Community Service Institute of Nahdlatul Ulama University Surabaya which has provided funding for the implementation of the program, as well as the Islamic Boarding School at Bangkalan which has agreed to be a partner in this activity.

REFERENCES

- Affandi, A. A. N. (2019) 'Analisis Personal Hygiene dan Keberadaan *Sarcoptes Scabiei* di Debu Alas Tidur Warga Binaan Pemasyarakatan pada Kejadian Skabies di Lapas Kelas IIB Jombang', *Jurnal Kesehatan Lingkungan*, 11(3), p. DOI: 10.20473/jkl.v11i3.2019.165-174.
- Afienna, H. (2018) 'Hubungan Personal Hygiene dan Sanitasi Lingkungan dengan Kejadian Penyakit Scabies di Pondok Pesantren Marifatul Ulum Bringin Kabupaten Ngawi', *Skripsi*, p. Tersedia di <http://repository.stikes-bhm.ac.id/335>.
- Afriani, B. (2017) 'Hubungan Personal Hygiene dan status Sosial Ekonomi dengan Kejadian Skabies di Pondok Pesantren', *Jurnal Ilmu Kesehatan*, 2 (1), 1–1, p. <https://doi.org/10.30604/jika.v2i1.25>.
- Andani, M. (2020) 'Hubungan Perilaku dan Kepadatan Hunian dengan Penyakit Skabies pada Warga Binaan Pemasyarakatan di Rutan Kelas II B Menggala Tahun 2020', *Diploma Tesis*, p. Tersedia di: <http://repository.poltekkes-tjk.ac.id/>.
- Ardiati, F. N. (2020) 'Hubungan Higiene Personal dan Karakteristik Santri dengan Gejala Scabies di Pondok Pesantren (Studi di Pondok Pesantren Salafiyah Sayfi'iyah Nurul Amin Kalipuro Banyuwangi)', *Skripsi*. Program Studi Kesehatan Masyarakat. Universitas Airlangga.
- Ariningtyas, D. N. (2019) 'Analisis Karakteristik dan Higiene Individu dengan Kejadian Skabies di Lembaga Pembinaan Khusus Anak (LPKA) Kelas I Blitar', *Jurnal Keperawatan Muhammadiyah*, (Edisi Khusus), pp. 225–231.
- Atikah, D. (2012) 'Perilaku Hidup Bersih dan Sehat (PHBS)', *Nuha Medika*, Yogyakarta.
- Darmiah, Muafidah, N. and Santoso, I. (2017) 'Hubungan Personal Higiene dengan Kejadian Skabies pada Santri Pondok Pesantren Al Falah Putera Kecamatan Liang Anggang Tahun 2016', *Journal of Health Science and Prevention*, 1(1), p. Doi: <https://doi.org/10.29080/jhsp.v1i1.5>.
- Djuanda, A., (2017). *Ilmu Penyakit Kulit dan Kelamin*, Edisi 7 Bagian Ilmu Penyakit Kulit dan Kelamin. Jakarta: FK UI.
- Fanissa and Andriyani, Y . (2020) 'The Correlation of Santri's Personal Hygiene to the Incidences of Scabies in Pesantren Al-Kautsar Simalungun (a boarding school).', *Journal of Endocrinology, Tropical Medicine, and Infectious Disease*, p. <https://doi.org/10.32734/jetromi.v2i1.3494>. doi: 10.32734/jetromi.v2i1.3494.
- Karina DP, Dedi RS, Oki Suwarsa. Relationship between Knowledge, Attitude and Practice of Student's Personal Hygiene with Scabies Incidence in Pesantren Darul Fatwa, Jatinaror, West Java, Indonesia. *Althea Medical Journal*. 4(3):456-60
- Lubis, N. L. Analisis Faktor -Faktor yang Memengaruhi Kejadian Skabies di Lembaga Pembinaan Khusus Anak (LPKA) Kelas II Kota Pekanbaru Tahun 2019. (2020).
- Mounsey KE, McCarthy JS, Walton SF. (2013). Scratching the itch: new tools to advance understanding of scabies. *Trends in Parasitology*. 29(1):35–42.
- Talukder K, Talukder M, Farooque M, Khairul M, Sharmin F, Jerin I, et al. (2013). Controlling scabies in madrasahs (Islamic religious schools) in Bangladesh. *Public Health*. 127(1):83–91.
- Wheat C.M., & Burkhart C.N., & Burkhart C.G., & Cohen B.A. (2019). Scabies, other mites, and pediculosis. Kang S, & Amagai M, & Bruckner A.L., & Enk A.H., & Margolis D.J., & McMichael A.J., & Orringer J.S.(Eds.), *Fitzpatrick's Dermatology*, 9e. McGraw Hill. <https://accessmedicine.mhmedical.com/content.aspx?bookid=2570§ionid=21044155>