

## The Relationship Between Santri's Knowledge About Scabies And Personal Hygiene With The Incidence Of Scabies In Pesantren Azzainiyyah Sukabumi

Jesica Restu Mawarni<sup>a\*</sup> | Hendri Hadiyanto<sup>b</sup> | Lutiya<sup>c</sup>

<sup>a,b,c</sup> Faculty of Health, Universitas Muhammadiyah Sukabumi

\*Corresponding Author: [jesticarestu8387@gmail.com](mailto:jesticarestu8387@gmail.com)

### ARTICLE INFORMATION

#### Article history

Received (25 January 2025)

Revised (10 June 2025)

Accepted (15 June 2025)

#### Keywords.

Scabies, Personal Hygiene,  
Knowledge of Santri, Pesantren  
Azzainiyyah, Incidence of

### ABSTRACT

*Scabies is a contagious skin disease caused by *Sarcoptes scabiei* mites that infest a person. The disease often occurs in places with high density and poor sanitation, such as in boarding schools. Poor knowledge about hygiene, poor hygiene care, and unfavorable environmental conditions, such as lack of access to sanitation, are the main risk factors for scabies. The purpose of this study was to see how santri's knowledge of scabies, personal hygiene care, and scabies cases in Pesantren Azzainiyyah Sukabumi correlate with each other. This study utilized a descriptive correlative design and cross-sectional technique. The systematic method of random sampling consisted of 62 students. Data were collected through questionnaires containing variables of knowledge about scabies, personal sanitation, and scabies cases. Chi-Square test was used to analyze univariate and bivariate data. The result of P value obtained from chi Square test for asymp sig. (2-sided) is 0.000. This value shows the result of  $p, 0.05$  and means that  $H_a$  is accepted and  $H_o$  is rejected. So it can be concluded that there is a significant relationship between the relationship between santri knowledge about scabies and personal hygiene with the incidence of scabies. It can be concluded that there is a significant correlation between the level of knowledge of students about scabies and personal hygiene habits with the number of scabies cases that occur in Pesantren Azzainiyyah Sukabumi. Lack of knowledge and poor personal hygiene habits increase the likelihood of getting scabies. It is recommended for pesantren managers to provide regular health education on the importance of personal hygiene and scabies prevention.*

## Introduction

Indonesia is a tropical country that facilitates the breeding process of bacteria, parasites and fungi that cause disease, one of which is skin disease, namely scabies caused by infestation of sarcoptes scabies mites according to Otomo in (Unairnews, 2021). Scabies is an under-recognized global health problem with very high prevalence in the world El-Moamly in (Septalita et al., 2024). Scabies affects all ages and communities such as boarding schools Elzatillah in (Septalita et al., 2024). This study aims to examine the relationship between santri's knowledge of personal hygiene and the incidence of scabies in Pesantren Azayiniah Sukabumi. By understanding the factors that influence the incidence of scabies, it is hoped that effective prevention and control efforts can be developed.

Scabies or scabies is also a skin disease caused by a lack of environmental hygiene caused by *Sarcoptes scabies* var *hominis*, a type of parasitic tick that can tunnel inside the skin and this disease has been found since ancient Egyptian civilization (Alvikri & Yudhastuti, 2024). (Alvikri & Yudhastuti, 2024) explains that scabies in its life stages (larvae, protonymphs, tritonymphs, and adult mites) lives in the stratum corneum of the epidermis of mammals and humans and is an obligate permanent parasite that requires the extracellular fluid of the host that seeps into the tunnel to maintain its life.



This is an Open Access article  
Distributed under the terms of the  
[Creative Commons Attribution 4.0 International License](https://creativecommons.org/licenses/by/4.0/).

According to the World Health Organization (WHO) report, the number of skin disease infection cases worldwide reaches around 300 million per year. In Indonesia, the prevalence of skin diseases ranges from 4.60% to 12.95% making it the third most common disease among the 10 major diseases (Sri Rahayu et al., 2023). (Febria et al., 2024) According to the Indonesian Ministry of Health, the prevalence of scabies in Indonesia is 5.60 - 12.95% and this disease ranks third out of 12 most common skin diseases in Indonesia. The prevalence of scabies in West Java has increased every year from 2015 by 9.7%, in 2016 there was a significant increase in prevalence to 16.0%, in 2017 to 2019 there continued to be an increase in the prevalence of scabies every year until in 2020 the prevalence became 20.5%. (Wibianto & Santoso, 2020) .

According to Potter and Perry, the factor that plays a role in the high prevalence of scabies is personal hygiene due to the habits of students such as the intensity of bathing, the use of towels, clothes, toiletries and bedding together. Hygiene is an effort to maintain a healthy life which includes personal hygiene, social life, and work hygiene. The results of research conducted by the daughter obtained an OR value of 5.96, meaning that respondents with good personal hygiene 5.96 times did not get scabies compared to adequate personal hygiene (Adolph, 2020) .

There are several factors that influence the transmission of scabies, one of which is living together, such as living in a boarding school, which is at risk of easily contracting various diseases, especially skin diseases (Rachma Nisa et al., 2019) . Transmission occurs when personal and environmental hygiene is not maintained properly. In fact, some pesantren grow up in a slum environment, dirty bathing and toilet facilities, lack of clean water availability, humid environment and poor sanitation (Sari et al., 2021) .

The risk factor for scabies in addition to environmental sanitation is the presence of poor personal hygiene, this is reinforced by research conducted by Afriani who explained that the low socio-economic status of santri is a direct result of the lack of personal hygiene infrastructure facilities, which means they have to borrow or ask from their boarding school friends to keep their clothes, towels and bedding clean. This is why scabies is so common in pesantren. From that, it can be seen that there is a very influential relationship between the occurrence of scabies and the personal hygiene of each santri.

Environmental health efforts are a prevention of various conditions that may cause disease and environmental sanitation is a factor that must be considered. (Ahmad Roisul Umam et al., 2023)

The results of research at the Gading Mangu Perak Jombang Traditional Islamic Boarding School found that 52 students (72.2%) suffered from scabies (Adolph, 2016). The results of research at the Darul Ma'arif Islamic Boarding School in Sintang Regency showed that 58.9% of respondents had suffered from scabies, 56.7% of respondents had poor personal hygiene and 68.9% of respondents had poor environmental sanitation (Juliansyah, 2021) . The results of research conducted on scavengers at the Kaliabu Village Landfill, Mejayan Subdistrict, Madiun Regency had a poor level of personal hygiene as much as 70.8% (Adolph, 2020)

Based on the background, researchers were interested in conducting a study on "The relationship between students' knowledge of scabies and personal hygiene with the incidence of scabies at Pesantren Azzainiyyah Sukabumi.". The purpose of this study was to determine whether there was a relationship between students' knowledge about personal hygiene and the incidence of scabies at Pesantren Azzainiyyah Sukabumi.

## Methods

The type of research used is quantitative while the research design is descriptive correlative (Sugiyono, 2020). The study was conducted at Pesantren Azzainiyyah Sukabumi, with a total sample of 62 MA students. The sample was determined using the Slovin formula and selected through a simple random sampling technique. Inclusion criteria for the participants



were: (1) students who were actively enrolled during the research period, (2) students who lived in the pesantren dormitories, and (3) students who were willing to participate and signed the informed consent form. Exclusion criteria included: (1) students who were on leave or sick during data collection, and (2) students who had incomplete questionnaire responses.

The research instrument consisted of structured questionnaires developed to measure three main variables: knowledge about scabies, personal hygiene practices, and history of scabies incidence. The instruments were tested for validity using Pearson Product Moment correlation, and for reliability using Cronbach's Alpha. All instrument items met the acceptable criteria with a validity value of  $r > 0.30$  and reliability coefficient ( $\alpha$ )  $> 0.70$ , indicating that the questionnaire was valid and reliable. The data analysis was performed using SPSS version 20 for Windows, employing univariate analysis (to describe characteristics of the respondents and variables) and bivariate analysis using the Chi-Square test, to examine the relationship between knowledge about scabies and personal hygiene with the incidence of scabies. The level of significance was set at  $p < 0.05$ .

## Results

This research was conducted at the Azzainiyyah Islamic boarding school in Sukabumi took place from November 2024 - January 2025 with a sample of 62 respondents of Santri Azzainiyyah Sukabumi. The following is a description of the results of data analysis research presented using univariate and bivariate.

### 1. Analysis

Univariate analysis was conducted to identify and describe the characteristics of the variables studied. The data analyzed in this study are the characteristics of respondents which include Gender, Age, Class, Level of knowledge of Scabies, Personal Hygiene an Overview of the incidence of scabies is described in the following table.

#### a. Gender

Before explaining the results of this study, researchers identified respondents based on gender.

Table 1. Distribution of Respondent Characteristics by Gender

Gender	Frequency	Percentage
Male	29	46.8
Female	33	53.2
<b>Total</b>	<b>62</b>	<b>100</b>

Table 1 shows that there were 29 male respondents (46.8%) and 33 female respondents (53.2%). The results of this study indicate that the majority of respondents are female as many as 33 people (53.2%).

#### b. Age

Before explaining the results of this study, the researcher identified the

Table 1. Distribution of Respondent Characteristics by Age

Age	Frequency	Percentage
16 Years	32	51.6
17 Years	25	40.3
18 Years	5	8.1
<b>Total</b>	<b>62</b>	<b>100</b>

Based on table 2 shows that respondents aged 16 years years as many as 32 people (51.6%), 17 years old as many as 25 people (40.3%), and 18 years old as many as 5 people (8.1%). The results of this study indicate that the majority of respondents aged 16 years were 32 people (51.6%).

### c. Class

Before explaining the results of this study, researchers identified respondents based on class.

Table 3. Distribution of Respondent Characteristics based on Force Level

Force Level	Frequency	Percentage
Class 11A	19	30.6
Class 11B	33	53.2
Class 12A	10	16.1
<b>Total</b>	<b>75</b>	<b>100</b>

Table 3 shows that the respondents from Class 11A were (30.6%), Class 11B were 33 people (53.2%), Class 12A were 10 people (16.1%). The results of this study indicate that the majority of respondents in Class 11B were 33 people (53.2%),

### d. Scabies Knowledge Level

Before explaining the results of this study, the researcher described the level of knowledge of scabies

Table 4. Distribution of Scabies Knowledge Level

Knowledge	Frequency	Percentage
Less Good	31	50
Good enough	22	35.5
Good	9	14.5
<b>Total</b>	<b>75</b>	<b>100%</b>

Based on table 4 shows that respondents have a level of knowledge about scabies in the poor category as many as 31 people (50%), quite good as many as 22 people (35.5%), and a good level of knowledge as many as 9 people (14.5%). The results of this study indicate that the majority of respondents had a poor level of knowledge about scabies as many as 31 people (50%),

### e. Personal Hygiene Overview

Table 5. Distribution of personal hygiene

Personal Hygiene	Frequency	Percentage
Good	24	38.7
Bad	38	61.3
<b>Total</b>	<b>62</b>	<b>100%</b>

Based on table 5 shows that 24 people (38.7%) have good personal hygiene, 38 people (61.3%) have good personal hygiene. The results of this study indicate that the majority of respondents who have good personal hygiene are 38 people (61.3%).

### f. Overview of Scabies Incidence

Table 6: Distribution of scabies incidence

Incidence of scabies	Frequency	Percentage
Never	22	35.5
Ever	40	64.5
<b>Total</b>	<b>62</b>	<b>100%</b>

Based on table 6 shows that 22 respondents (35.5%) never had scabies, 40 people (64.5%) had scabies, the results of this study indicate that the majority of respondents had scabies as many as 40 people (64.5%).

## 2. Bivariate Analysis

Bivariate analysis was conducted to test the hypothesis regarding the significant relationship between the relationship between the knowledge of students about scabies and personal hygiene with the incidence of scabies in the azzainiyyah Islamic boarding school in Sukabumi with the Chi Square hypothesis test.

**a. Relationship between Santri's knowledge about scabies and the incidence of scabies**

Table 7. The relationship between santri's knowledge about scabies and personal hygiene with the incidence of scabies

Scabies Knowledge	Incidence of Scabies				Total		P-Value
	Never		Ever				
	F	%	F	%	F	%	
Less Good	7	11.3%	24	38.7%	31	50%	<b>0.001</b>
Good enough	7	11.3%	15	24.2%	22	35.5%	
Good	8	12.9%	1	1.6%	9	14.5%	
Total	22	35.5%	40	64.5%	62	100%	

Based on the results of data tabulation in table 7, it is known that scabies knowledge in the poor category in students with never had scabies was 7 people (11.3%), scabies knowledge in the poor category in students with ever had scabies was 24 people (38.7%). Knowledge of scabies in the category of quite good in students with never had scabies as many as 7 people (11.3%), knowledge of scabies in the category of quite good in students with ever had scabies as many as 15 people (24.2%). Good category scabies knowledge in students with never had scabies as many as 8 people (12.9%), good category scabies knowledge in students with ever had scabies as many as 1 person (1.6%).

The P Value obtained from the Chi Square test for asymp sig. (2-sided) is 0.000. This value shows the result of  $p < 0.05$  and means that  $H_a$  is accepted and  $H_0$  is rejected. So it can be concluded that there is a significant relationship between Santri's knowledge about scabies and the incidence of scabies.

**b. Relationship between personal hygiene and the incidence of scabies**

Table 8. the relationship between personal hygiene and the incidence of scabies

Personal Hygiene	Incidence of Scabies				Total		P-Value
	Never		Ever				
	F	%	F	%	F	%	
Good	18	29%	6	9.7%	24	38.7%	<b>0.000</b>
Bad	4	6.5%	34	54.8%	38	%	
Total	22	35.5%	40	64.5%	62	100%	

Based on the results of data tabulation in table 8, it is known that personal hygiene in the good category in students who have never had scabies is 18 people (29%), personal hygiene in the bad category in students who have had scabies is 6 people (9.7%). Bad personal hygiene in students with never had scabies was 4 people (6.5%), bad personal hygiene in students with ever had scabies was 34 people (54.8%).

The P Value obtained from the Chi Square test for asymp sig. (2-sided) is 0.000. This value shows the result of  $p < 0.05$  and means that  $H_a$  is accepted and  $H_0$  is rejected. So it can be concluded that there is a significant relationship between Personal Hygiene and the incidence of Scabies in students.

## Discussion

### 1. Overview Knowledge About Scabies

The findings of this study indicate that the majority of respondents (50%) had a poor level of knowledge about scabies. This lack of understanding may stem from limited health education,





minimal access to information, and low awareness of skin disease prevention practices in the pesantren environment. According to Notoatmodjo (2019), knowledge plays a critical role in shaping individual health behaviors. Without adequate knowledge, individuals are less likely to recognize early symptoms, understand transmission methods, or apply preventive measures for scabies. This is supported by prior research from Ela Elzatih (2019), who also found that a low level of knowledge was a dominant factor in the high prevalence of scabies in traditional boarding schools.

## 2. Overview of Personal Hygiene

In terms of personal hygiene, 61.3% of respondents were categorized as having poor hygiene habits. This includes practices such as sharing towels or bedding, infrequent bathing, and improper laundering of clothes all of which are common risk factors for the spread of scabies in communal living environments like pesantren. Kurniadi (2022) emphasized that personal hygiene encompassing body, clothing, and environmental cleanliness is essential to preventing skin diseases such as scabies. The poor hygiene practices observed in this study align with the typical conditions in pesantren environments, which often face challenges such as overcrowding, limited access to clean water, and inadequate sanitation.

## 3. Correlation Between Knowledge, Personal Hygiene, and Scabies Incidence

Bivariate analysis using the Chi-Square test revealed a statistically significant relationship between the level of knowledge and the incidence of scabies ( $p = 0.001$ ), as well as between personal hygiene and scabies incidence ( $p = 0.000$ ). Respondents with poor knowledge and hygiene were more likely to have experienced scabies, reinforcing the hypothesis that both factors contribute to disease transmission. These findings are consistent with the research by Khotimah et al (2021), which also highlighted the strong correlation between personal hygiene behavior and the occurrence of scabies among male students. The combined evidence underscores the urgent need for structured health education programs and hygiene promotion in pesantren settings to reduce the incidence of scabies.

Overall, this study contributes valuable insights into the behavioral and environmental determinants of scabies. It supports the notion that improving knowledge and hygiene practices among students can serve as a foundational strategy for scabies prevention. Health education interventions tailored to pesantren contexts should be prioritized to empower santri with the knowledge and habits necessary to reduce transmission rates.

## Conclusion

Based on the characteristics of the respondents, the total number of respondents who were male was 29 people (46%) and 33 people (53%) were female. The results of this study indicate that the majority of respondents are female as many as 33 people (53.2%).

The level of knowledge shows that respondents have a level of knowledge about scabies in the poor category as many as 31 people (50%), quite good as many as 22 people (35.5%), and a good level of knowledge as many as 9 people (14.5%). The results of this study indicate that the majority of respondents have a level of knowledge about scabies in the poor category as many as 31 people (50%).

The results showed that the respondents had good personal hygiene as many as 24 people (38.7%). good personal hygiene as many as 38 people (61.3%). The results of this study indicate that the majority of respondents who have good personal hygiene are 38 people (61.3%).

It is known that the poor category of scabies knowledge in students who have never had scabies is 7 people (11.3%), good category of scabies knowledge in students who have had scabies is 24 people (38.7%). Scabies knowledge in the moderately good category in students with ever had scabies was 8 people (12.9%), scabies knowledge in the good category in students with ever had scabies was 1 person (1.6%).



It is known that personal hygiene in the good category in students who have never had scabies is 18 people (29%), personal hygiene in the bad category in students who have had scabies is 6 people (9.7%). Bad personal hygiene in students with never had scabies was 4 people (6.5%), bad personal hygiene in students with ever had scabies was 34 people (54.8%).

The result of the P Value obtained from the Chi Square test for asymp sig. (2-sided) is 0.000. This value shows the result of  $p < 0.05$  and means  $H_a$  is accepted and  $H_0$  is rejected. So it can be concluded that there is a significant relationship between Personal Hygiene and the incidence of Scabies in students.

## References

- Adolph, R. (2016). *FAKTOR – FAKTOR YANG MEMPENGARUHI TERJADINYA PENYAKIT SKABIES DI DESA SUKARAJA KABUPATEN SUKABUMI TAHUN 2021*. 19(2), 1–23.
- Ahmad Roisul Umam, Nanan Sekarwana, & Mia Yasmina Andarini. (2023). Sanitasi Lingkungan Berpengaruh terhadap Kejadian Skabies pada Santri Laki-laki di Ponpes. *Jurnal Riset Kedokteran*, 123–128. <https://doi.org/10.29313/jrk.v3i2.3042>
- Alvikri, A. A., & Yudhastuti, R. (2024). *HUBUNGAN SANITASI LINGKUNGAN DAN PERSONAL HIGIENE DENGAN PENYAKIT SKABIES DI PONDOK PESANTREN : LITERATURE REVIEW 2014 – 2024*. 5(September), 9576–9592.
- Ela Elzatilah. (2019). *GAMBARAN KEJADIAN SKABIES DI PONDOK PESANTREN TRADISIONAL DAN PONDOK PESANTREN MODERN*. Research Gate.
- Febria, D., Irfan, A., Syafriani, S., Angraini, D. N., & Hardianti, S. (2024). Upaya Peningkatan Sanitasi dan Kebersihan Lingkungan di Pondok Pesantren Darun Nahda Bangkinang. *Jurnal Medika: Medika*, 3(2), 57–61. <https://doi.org/10.31004/medika3228>
- Juliansyah, E. (2021). *JENIS KELAMIN, PERSONAL HYGIENE, DAN SANITASI LINGKUNGAN DENGAN KEJADIAN PENYAKIT SCABIES PADA SANTRI DI PONDOK PESANTREN DARUL MA'ARIF KABUPATEN SINTANG*. Jumantik.
- Khotimah, H., Andayani, S. A., & Maulidah, R. (2021). Pengalaman Personal Hygiene Pada Santri Putra Dengan Penyakit Scabies Di Pondok Pesantren Darullughah Wal Karomah Sidomukti Kraksaan Probolinggo. *Jurnal Keperawatan Profesional*, 9(1), 70–95. <https://doi.org/10.33650/jkp.v9i1.2038>
- Kurniadi, R. (2022). Hubungan Perilaku Personal Hygiene Terhadap Kejadian Skabies Di Pondok Pesantren Al-Ahsan Kabupaten Jombang. *Suparyanto Dan Rosad (2015, 5(3)*, 248–253.
- Rachma Nisa, F., Rahmalia Program Studi Kesehatan Masyarakat, D., & Ilmu Kesehatan, F. (2019). Faktor-faktor yang Berhubungan dengan Kejadian Skabies pada Santri Putra di Pondok Pesantren Darurrahmah Gunung Putri Bogor. *Jurnal Untuk Masyarakat Sehat (JUKMAS)*, 3(1), 16–23.
- Sari, N., Azzahri, L. M., & Yusmardiansah, Y. (2021). Hubungan Sanitasi Lingkungan Dan Personal Hygiene Dengan Kejadian Skabies Di Pondok Pesantren Anshor Al-Sunnah Tahun 2021. *Jurnal Kesehatan Tambusai*, 2(4), 9–17. <https://doi.org/10.31004/jkt.v2i4.2291>
- Septalita, Zaman, C., Suryani, L., Wahyudi, A., & Dwi Priyatno, A. (2024). Analisis Kejadian Skabies Pada Santri di Pondok Pesantren X Kecamatan Ilir Timur II Kota Palembang Tahun 2023. *Jurnal Kesehatan Saelmakers PERDANA*, 7(1), 50–56.



<https://doi.org/10.32524/jksp.v7i1.1110>

Soekidjo. (2018). *Metodologi penelitian kesehatan / Prof. Dr. Soekidjo Notoatmodjo, S.K.M., M.Com.H.* Online Public Access Catalog Perpustakaan Nasional RI.

Sugiyono. (2020). *Metode Penelitian Kuantitatif, Kualitatif, dan R&D* (Bandung). Alfabeta, Cv.

Unairnews. (2021). *Scabies Merupakan Penyakit Kulit Menular Jangan Diremehkan.* Cakrawala.

Wibianto, A., & Santoso, I. D. (2020). Prevalensi Penderita Skabies di Puskesmas Ciwidey Jawa Barat dalam Periode 5 Tahun (2015-2020): Studi Retrospektif. *Jurnal Implementa Husada*, 1(3), 281–290. <https://doi.org/10.30596/jih.v1i3.5605>



This is an Open Access article  
Distributed under the terms of the  
[Creative Commons Attribution 4.0 International License](https://creativecommons.org/licenses/by/4.0/).