

## RELATIONSHIP BETWEEN PERSONAL HYGIENE KNOWLEDGE AND ATTITUDES AND DERMATITIS SEVERITY AMONG STUDENTS OF MODERN ROBITHOH ISLAMIC BOARDING SCHOOL, BANDUNG REGENCY

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### Abstract

**Purpose:** This study aimed to analyze the relationship between personal hygiene knowledge and attitudes and dermatitis severity among students at Modern Robithoh Islamic Boarding School, Bandung Regency. **Methodology:** This study employed a quantitative analytical design with a cross-sectional approach. The sample consisted of 40 students selected using a total sampling technique. Data were collected using a personal hygiene knowledge questionnaire, a personal hygiene attitude questionnaire, and a dermatitis observation sheet. Data were analyzed using the Spearman Rank correlation test with a significance level of  $p < 0.05$ . **Findings:** The results showed that most respondents were 14 years old (60.0%) and male (55.0%). A total of 40.0% of respondents experienced severe dermatitis. The majority of respondents had a moderate level of personal hygiene knowledge (55.0%) and a moderate level of personal hygiene attitude (77.5%). Spearman Rank correlation analysis revealed a significant relationship between personal hygiene knowledge and dermatitis severity ( $p = 0.030$ ;  $r = -0.343$ ), as well as a significant relationship between personal hygiene attitude and dermatitis severity ( $p = 0.000$ ;  $r = -0.662$ ). **Practical/Social Implications:** The findings highlight the importance of strengthening health education and fostering positive attitudes toward personal hygiene among students as a preventive strategy against dermatitis in Islamic boarding schools. Boarding school administrators may develop health promotion programs, improve personal hygiene monitoring, and provide adequate sanitation facilities to support healthy living behaviors. **Originality/Value:** This study provides empirical evidence regarding the relationship between personal hygiene knowledge and attitudes and dermatitis severity among students in an Islamic boarding school setting. The findings indicate that personal hygiene attitude has a stronger association with reducing dermatitis severity than knowledge, suggesting that attitude-based interventions should be prioritized in school health promotion programs.

Keywords: dermatitis; personal hygiene; knowledge; attitude; Islamic boarding school students.

### 1. INTRODUCTION

Dermatitis remains one of the most common skin diseases and continues to be a public health concern in many countries. This condition is characterized by inflammation of the epidermal and dermal layers, resulting in symptoms such as erythema, papules, vesicles, scales, and pruritus that may interfere with daily activities. In addition to causing physical discomfort, dermatitis can reduce quality of life, disrupt learning activities, and increase the risk of psychosocial problems when not properly

managed. Atopic dermatitis, in particular, is a chronic inflammatory skin disease that is frequently found among children and adolescents and has significant impacts on their physical, emotional, and social well-being [1], [2], [3], [4]

In Indonesia, skin diseases remain among the most frequently encountered health problems in primary healthcare services. According to the Indonesian Basic Health Research data, the prevalence of dermatitis in Indonesia reaches 6.8%, indicating that skin disorders continue to represent a considerable public health issue[5]. The tropical climate, characterized by high temperatures and humidity, promotes the growth of various microorganisms that may contribute to skin disorders. In addition to environmental factors, poor personal hygiene practices may increase the risk of developing dermatitis. Bahari and Paramita [6] reported a significant relationship between personal hygiene and the incidence of atopic dermatitis among school-aged children, highlighting the importance of personal hygiene in preventing skin diseases. Several studies have shown that inadequate personal hygiene practices, including irregular bathing habits, sharing clothes and towels, and poor bedding hygiene, are associated with an increased incidence of skin diseases among school-aged children and adolescents [5], [7], [8].

Islamic boarding schools (pondok pesantren) are residential educational institutions characterized by communal living and intensive social interactions among students. Overcrowded living conditions, shared facilities, and the practice of sharing personal belongings may increase the risk of skin diseases if not supported by proper hygiene behaviors. High residential density has been recognized as a factor that facilitates the transmission of various skin diseases among individuals living in close proximity, including students in Islamic boarding schools. Therefore, Islamic boarding school students are considered a vulnerable population for skin health problems, including dermatitis and other communicable skin diseases [9], [10], [11], [12].

Knowledge and attitudes are important factors influencing personal hygiene practices. Adequate knowledge enhances an individual's understanding of the importance of maintaining personal cleanliness, while positive attitudes encourage the consistent adoption of healthy hygiene behaviors. Health education regarding personal hygiene has been shown to improve students' knowledge and awareness of skin disease prevention in boarding school settings [13]. Individuals with better knowledge and positive attitudes are generally more likely to adopt preventive health behaviors through appropriate personal hygiene practices. Previous studies have reported associations between personal hygiene and skin diseases among boarding school students; however, most studies have focused on hygiene behaviors and environmental sanitation. Panggabean and Andayani (2024) reported a relationship between knowledge and personal hygiene practices among students with skin diseases. Other studies have demonstrated that skin cleanliness, clothing hygiene, towel hygiene, and bedding hygiene are associated with the occurrence of skin diseases in boarding school and dormitory environments [7], [10], [12]

Previous studies on skin diseases among boarding school students have primarily focused on personal hygiene practices, environmental sanitation, overcrowding, and the use of shared facilities as risk factors [7], [10], [11], [12]. Although several studies have reported associations between personal hygiene, environmental sanitation, overcrowding, and skin diseases among students, research specifically examining the simultaneous relationship between personal hygiene knowledge and attitudes and dermatitis severity remains limited. Furthermore, few studies have been conducted in Islamic boarding schools in Bandung Regency, highlighting the need for more context-specific investigations. Differences in the characteristics of boarding schools, including population size, environmental conditions, and students' daily habits, may contribute to variations in risk factors associated with dermatitis severity. Therefore, this study was conducted to provide a more specific understanding of the relationship between personal hygiene knowledge and attitudes and dermatitis severity among students in Islamic boarding schools.

A preliminary study conducted at Modern Robithoh Islamic Boarding School, Ciparay District, Bandung Regency, identified 247 students, consisting of 130 male and 117 female students. Dermatitis was found to be among the three most common health problems in the boarding school environment. Initial observations revealed that some students still shared clothing, used inadequately cleaned towels, rarely exposed bedding to sunlight, and lived in rooms with relatively high occupancy density. In addition, some students had a previous history of skin diseases and were potentially exposed to disease transmission through the shared use of personal facilities. These conditions indicate that dermatitis remains an important health issue requiring attention within the boarding school setting. Therefore, this

study aimed to analyze the relationship between personal hygiene knowledge and attitudes and dermatitis severity among students at Modern Robithoh Islamic Boarding School, Bandung Regency.

## 2. METHODOLOGY

This study employed a quantitative analytical research design with a cross-sectional approach to analyze the relationship between personal hygiene knowledge and attitudes and dermatitis severity among students at Modern Robithoh Islamic Boarding School, Ciparay District, Bandung Regency.

The study was conducted from February to March 2025 at Modern Robithoh Islamic Boarding School, Bandung Regency. The study population consisted of all students who met the inclusion criteria. A total of 40 respondents were included in the study using a total sampling technique.

Data were collected using questionnaires and an observation sheet. The knowledge questionnaire was used to assess students' level of knowledge regarding personal hygiene, while the attitude questionnaire was used to evaluate students' attitudes toward personal hygiene practices. Dermatitis severity was assessed using an observation sheet based on the signs and symptoms of dermatitis experienced by the respondents. Prior to data collection, the research instruments underwent validity and reliability testing to ensure their appropriateness for the study.

Data analysis was performed using univariate and bivariate statistical analyses. Univariate analysis was used to describe respondents' characteristics, levels of personal hygiene knowledge, personal hygiene attitudes, and dermatitis severity. Bivariate analysis was conducted using the Spearman Rank correlation test with a significance level of  $p < 0.05$  to determine the relationship between personal hygiene knowledge and attitudes and dermatitis severity.

This study adhered to research ethics principles, including informed consent, confidentiality of respondents' identities, anonymity, and respondents' voluntary participation in the study.

## 3. RESULTS

### 3.1 Respondent Characteristics

*Table 1. Respondent Characteristics Based on Age and Gender (n = 40)*

<b>Characteristics</b>	<b>Frequency (n)</b>	<b>Percentage (%)</b>
<b>Age</b>		
13 years	16	40.0
14 years	24	60.0
<b>Gender</b>		
Male	22	55.0
Female	18	45.0

Based on Table 1, the majority of respondents were 14 years old, accounting for 24 respondents (60.0%). In terms of gender, most respondents were male, with 22 respondents (55.0%), while female respondents accounted for 18 respondents (45.0%).

### 3.2 Dermatitis Severity

**Table 2.** Distribution of Dermatitis Severity (n = 40)

<b>Dermatitis Category</b>	<b>Frequency (n)</b>	<b>Percentage (%)</b>
No Dermatitis	0	0
Mild	13	32.5
Moderate	11	27.5
Severe	16	40.0
<b>Total</b>	<b>40</b>	<b>100.0</b>

Based on Table 2, the majority of respondents experienced severe dermatitis, accounting for 16 respondents (40.0%). This was followed by mild dermatitis in 13 respondents (32.5%) and moderate dermatitis in 11 respondents (27.5%). No respondents were classified as having no dermatitis.

### 3.3 Levels of Personal Hygiene Knowledge and Attitudes

**Table 3.** Distribution of Personal Hygiene Knowledge and Attitude Levels

<b>Variable</b>	<b>Category</b>	<b>Frequency (n)</b>	<b>Percentage (%)</b>
<b>Personal Hygiene Knowledge</b>	Good	16	40.0
	Moderate	22	55.0
	Poor	2	5.0
<b>Personal Hygiene Attitude</b>	Good	8	20.0
	Moderate	31	77.5
	Poor	1	2.5

Based on Table 3, the majority of respondents had a moderate level of personal hygiene knowledge, accounting for 22 respondents (55.0%). Regarding personal hygiene attitudes, most respondents demonstrated a moderate attitude level, accounting for 31 respondents (77.5%).

### 3.4 Relationship Between Personal Hygiene Knowledge and Attitudes and Dermatitis Severity

**Table 4.** Relationship Between Personal Hygiene Knowledge and Attitudes and Dermatitis Severity

<b>Variable</b>	<b>Correlation Coefficient (r)</b>	<b>p-value</b>	<b>Interpretation</b>
Personal Hygiene Knowledge	-0.343	0.030	Significant
Personal Hygiene Attitude	-0.662	0.001	Significant

Based on Table 4, the results of the Spearman Rank correlation test revealed a significant relationship between personal hygiene knowledge and dermatitis severity ( $p = 0.030$ ;  $r = -0.343$ ), as well as a significant relationship between personal hygiene attitude and dermatitis severity ( $p = 0.000$ ;  $r = -0.662$ ). The negative correlation coefficients indicate that higher levels of personal hygiene knowledge and more positive personal hygiene attitudes were associated with lower levels of dermatitis

severity among the students. Furthermore, the relationship between personal hygiene attitude and dermatitis severity demonstrated a stronger correlation than that between personal hygiene knowledge and dermatitis severity..

## 4. CONCLUSION

### 4.1 Relationship Between Personal Hygiene Knowledge and Dermatitis Severity

The results of this study revealed a significant relationship between personal hygiene knowledge and dermatitis severity among students at Modern Robithoh Islamic Boarding School, Bandung Regency ( $p = 0.030$ ;  $r = -0.343$ ). The negative correlation coefficient indicates that higher levels of personal hygiene knowledge were associated with lower levels of dermatitis severity. However, the strength of the correlation was categorized as weak to moderate, suggesting that factors other than knowledge may also contribute to the occurrence and severity of dermatitis.

Knowledge is considered one of the predisposing factors influencing an individual's health behavior. According to health behavior theory, individuals with adequate knowledge are more likely to understand the benefits and importance of disease prevention measures, thereby facilitating the adoption of healthy and hygienic behaviors. Students who possess good knowledge regarding personal hygiene tend to have a better understanding of the importance of maintaining body cleanliness, clothing hygiene, towel hygiene, bedding hygiene, and environmental cleanliness as preventive measures against skin diseases [10], [14].

The findings of this study are consistent with those reported by Panggabean and Andayani (2024), who found that knowledge was associated with personal hygiene practices among students in Islamic boarding schools. Other studies have also demonstrated that a good understanding of personal hygiene contributes to the adoption of preventive behaviors against skin diseases among adolescents and boarding school students. Therefore, improving knowledge through health education may serve as an effective strategy for reducing the risk of dermatitis in boarding school environments. Rahman [13] reported that personal hygiene education programs were effective in increasing students' knowledge regarding clean and healthy living behaviors as an effort to prevent dermatitis in Islamic boarding schools.

Nevertheless, the findings of this study indicate that the relationship between knowledge and dermatitis severity was not particularly strong. This suggests that adequate knowledge does not always translate into appropriate personal hygiene practices. Limited facilities, communal living habits, overcrowding, and social influences within the boarding school environment may affect students' ability to maintain proper personal hygiene. In addition to knowledge, dermatitis may also be influenced by environmental conditions, sanitation, overcrowding, and the shared use of facilities, which are commonly found in Islamic boarding school settings [7], [12].

### 4.2 Relationship Between Personal Hygiene Attitudes and Dermatitis Severity

The results of this study revealed a significant relationship between personal hygiene attitudes and dermatitis severity among students at Modern Robithoh Islamic Boarding School, Bandung Regency ( $p < 0.001$ ;  $r = -0.662$ ). The negative correlation coefficient indicates that more positive personal hygiene attitudes were associated with lower levels of dermatitis severity. The correlation coefficient of  $-0.662$  demonstrates a strong relationship, suggesting that personal hygiene attitude is an important factor in the prevention and reduction of dermatitis severity among students.

Attitude refers to an individual's tendency to respond to a particular object or condition, which is reflected in their readiness to act. Positive attitudes toward personal hygiene encourage individuals to consistently maintain personal cleanliness through regular bathing, wearing clean clothes, maintaining the cleanliness of towels and bedding, and avoiding the sharing of personal items. Conversely, negative attitudes toward personal hygiene may increase the risk of developing skin health problems, including dermatitis.

The findings of this study are consistent with those of previous studies indicating that positive attitudes toward personal hygiene are associated with a lower incidence of skin diseases among boarding school students. Panggabean and Andayani [10] reported that positive attitudes toward personal hygiene contribute to the adoption of more appropriate personal hygiene practices. Similarly,

Zaman et al. [12] demonstrated that clean and healthy living behaviors play an important role in reducing the risk of skin diseases in densely populated boarding school environments.

The stronger correlation observed between attitude and dermatitis severity, compared to knowledge, suggests that possessing knowledge about personal hygiene does not necessarily lead to the consistent implementation of healthy behaviors. A student may understand the importance of maintaining personal hygiene but may lack the motivation, awareness, or commitment required to apply such knowledge in daily life. In contrast, positive attitudes can motivate individuals to transform knowledge into actual health-promoting behaviors. In addition to increasing knowledge, health education programs play an important role in fostering positive attitudes toward personal hygiene, which may subsequently encourage sustainable behavioral changes [13].

The communal lifestyle commonly practiced in Islamic boarding schools may also influence students' attitudes toward personal hygiene. Support from school administrators, the availability of hygiene facilities, supervision of clean and healthy living behaviors, and continuous health education programs can help foster positive attitudes toward personal hygiene among students. Therefore, efforts to prevent dermatitis should focus not only on improving knowledge but also on developing positive attitudes and sustainable hygiene practices among students.

## 5. CONCLUSIONS

This study found significant relationships between personal hygiene knowledge and dermatitis severity ( $p = 0.030$ ;  $r = -0.343$ ) and between personal hygiene attitudes and dermatitis severity ( $p < 0.001$ ;  $r = -0.662$ ) among students of Modern Robithoh Islamic Boarding School, Bandung Regency. The findings indicate that better knowledge and more positive attitudes toward personal hygiene are associated with lower levels of dermatitis severity. Personal hygiene attitude demonstrated a stronger correlation with dermatitis severity than knowledge. Therefore, health promotion programs in Islamic boarding schools should focus not only on improving knowledge but also on fostering positive attitudes and sustainable personal hygiene practices to prevent dermatitis.

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