ISSN. 2338-7475
E-ISSN. 2620-7869
Hearty
Jurnal Kesehatan Masyarakat
Beriman, Tulus, Sepenuh Hati,Berbesar Hati, Jujur, Sehat dan Kuat
Vol. 13 No. 2, April 2025, Hal. 401-408

THE RELATIONSHIP BETWEEN PERSONAL HYGIENE AND THE INCIDENCE OF SKIN DISEASES IN LORONG MESJID LK. IV BAGAN DELI BELAWAN

Anggina Cucu Khetri Sianturi *, Meutia Nanda, Azzahra Ramadhana Nasution, Dini Azila Saragih, Rahmadani Sagala
Faculty of Public Health, Universitas Islam Negeri Sumatera Utara
Jl. IAIN, Gaharu, Kec. Medan Tim., Kota Medan, Sumatera Utara 20232, Indonesia
Email: *angginasiantury@gmail.com*

Abstract

Skin disease is a condition or disorder that affects the human skin. Factors that cause skin diseases include an unclean environment and inadequate personal hygiene behaviour. Poor personal hygiene behaviour can increase the risk of developing skin diseases. This study aims to find the relationship between personal hygiene and the incidence of skin diseases in the population of Lorong Mesjid Lingkungan IV Bagan Deli Belawan. This study is quantitative and uses an analytical approach with a cross-sectional design. The population consisted of all people living in Lorong Mesjid Lingkungan IV Bagan Deli Belawan, with a total population of 1,963 people. This study involved a sample of 92 people selected using simple random sampling method and Lemeshow's formula. Data were collected through observation sheets and questionnaires filled out through interviews with respondents. Data were analysed using chi-square. The results showed that clothing hygiene, hand hygiene, towel use, and frequency of bathing had a significant relationship with the incidence of skin diseases, with a p-value of 0.001 each. Therefore, there was a significant association between the incidence of skin diseases and clothing hygiene, hand and nail hygiene, towel hygiene, and frequency of bathing. However, no statistically significant relationship was found between the use of footwear and the incidence of skin diseases. Therefore, residents in the coastal area of Lorong Mesjid Lingkungan IV Bagan Deli Belawan are advised to increase attention to personal hygiene, including skin hygiene, such as clothing care, hand and nail hygiene, towel hygiene, as well as increasing the frequency of bathing, and using footwear when doing activities outside the home.

Keywords: Disease, Personal Hygiene, Skin

Introduction

Groups of people who live in coastal areas or beaches are known as coastal communities. Most of them have livelihoods related to the sea, such as fishermen, fish farmers, fish traders, and sand miners. Coastal communities often face various problems, such as lack of clean water, overcrowded settlements, and lack of awareness about waste management on the beach. As a result, they often experience health problems, including skin diseases (Lukman et al., 2023).

Skin diseases are conditions or disorders that affect human skin and can be caused by various factors. Pathological changes affecting the skin, similar to other tissues, various conditions such as inflammatory, traumatic, neoplastic, endocrine, hormonal, and degenerative can affect skin health. Emotions also have an impact on skin conditions. Sometimes, the skin's reaction to these diseases and disorders is different from that of other body tissues. For example, severe skin inflammation can affect the metabolism of other organs and body systems, causing problems such as anaemia, circulatory disorders, decreased body temperature, and imbalance of fluids and electrolytes in the blood (Zahtamal

Submitted: June-2024 Received: October-2024 Available Online: April-2025

et al., 2022).

Skin disease is a type of infection that is common to all people of different age groups (N. Alga, 2023). Potter & Perry identified several common skin problems, such as dry skin, rough texture, scaly hands, feet, or face, acne, skin rashes, contact dermatitis or skin inflammation, and abrasion or loss of epidermal layer ((Purwaningsih et al., 2021).

Unsanitary environmental conditions and lack of personal care are some of the factors that can lead to skin diseases. An individual's level of personal hygiene affects good environmental sanitation, yet many people neglect it because it is considered a daily habit (K. Samosir et al., 2020). Personal hygiene is a basic human need that must be fulfilled and is part of a very important primary prevention measure to reduce the spread of microorganisms in the environment, which in turn will prevent a person from getting diseases. Poor personal hygiene care can make the body more susceptible to diseases such as skin diseases, infections, oral diseases, and respiratory tract diseases, which can impair skin function (Mulyani, W. 2022).

World Health Organization (WHO) research on the incidence of fungal infections on the skin revealed that 20% of people worldwide experience cutaneous infections in the form of dermatophytosis (Purwaningsih et al., 2021).

Lorong Masjid Lingkungan IV Bagan Deli It is located in the coastal area of Medan City, North Sumatra. Kelurahan lorong Ujung Mesjid Lk IV is one of the villages located in Bagan Deli Belawan District. Total population Lorong Masjid Lingkungan IV Bagan Deli which is 1,963 people with 456 households. Based on data on the incidence of skin diseases at the Puskesmas Pembantu Bagan Deli From March to May 2024, the incidence of skin diseases was 180 cases (Puskesmas Pembantu Bagan Deli, 2024)

Based on the results of the research observations conducted, it was found that some communities Lorong Masjid Linkungan IV Bagan Deli, In a survey about people's hygiene care, researchers found that people's hygiene was lacking, such as only bathing once a day, using shared towels, and having visibly dirty and long fingernails. The next day, researchers found that many people were still wearing the same clothes as the day before, perhaps because they still looked clean and not dirty. Of the 91 people surveyed, researchers found that 41 of them developed skin diseases. This study aims to determine if there is a relationship between personal hygiene and the incidence of skin diseases.

Methods

This study uses quantitative methods with an analytical approach using a cross-sectional design. The population consists of all people who are in Lorong Mesjid Lingkungan IV Bagan Deli Belawan, with a total population of 1,963 people. The sampling technique was carried out using the Simple Random Sampling method based on the Lemeshow formula, so that the number of research samples was 92 people. Data were collected through observation sheets. The instrument used in this study was a questionnaire. Data were collected through interviews with respondents using a questionnaire. Data analysis was carried out using the Chi-square test. The significance limit (confidence level) of 0.05 was used to determine the significance of the statistical calculation results. The hypothesis of this study was considered significant if the p-value <0.05, indicating a significant relationship (HO rejected). Conversely, if the p-value > 0.05, then there is no significant relationship (HO failed to be rejected).

Results and Discussion

In this study, the indicators observed included respondent characteristics and personal hygiene. This research method uses univariate analysis to describe the characteristics of respondents, personal hygiene and then uses bivariate analysis to determine whether there is a relationship between personal hygiene and the incidence of skin diseases.

Table 1. Frequency Distribution of Respondents' Characteristics

Variabel	Frekuensi (f)	Persentase (%)
Age		
<20 Years	28	30.4
20-30 Years	34	37.0
>30 Years	30	32.6
Gender		
Male	40	43.5
Female	52	56.5
Education		
Primary School Education	7	7.6
Junior High School Education	35	38.1
Senior High School Education	50	54.3
Occupation		
Housewife	50	54.3
Fisherman	32	34.7
Self employed	10	11.0
Total	**92**	**100**

Based on the frequency data of respondent characteristics based on age, most of the respondents were aged 20 to 30 years, with a total of 34 people (37.0%), aged over 30 years with a total of 30 people (32.6%) and under 20 years as many as 28 people (30.4%). Years with a total of 30 people (32.6%) and under 20 years as many as 28 people (30.4%). Based on gender, most respondents were female with 52 people (56.5%) and male with 40 people (43.5%). Based on education, as many as 7 people (7.6%) had primary school education, 35 people (38.1%) had junior high school education and 50 people (54.3%) had senior high school education. Based on occupation, most respondents were housewives with 50 people (54.3%), 32 people (34.7%) worked as fishermen and 10 people (11.0%) as self-employed.

Table 2. Univariate Data

Skin Hygiene Variable	Frekuensi (F)	Persentase (%)
Cleanliness Of Clothing		
Good	53	57.6
Not Good	39	42.4
Hand Hygiene		
Good	55	59.8
Not Good	37	40.2
Use Of Towels		
Good	38	41.3
Not Good	54	58.7
Frequency Of Bathing		
Good	51	55.4
Not Good	41	44.6
Use Of Footwear		
Good	68	73.9
Not Good	24	26.1
Incidence Of Skin Disease		
Suffer	41	44.6
Not Suffering	51	55.4
Total	**92**	**100**

Univariate analysis was conducted for each variable in the table. For the clothing hygiene variable, out of a total of 92 respondents, 53 (57.6%) respondents had good clothing hygiene, while 39 (42.4%) respondents had poor clothing hygiene. The hand hygiene variable showed that out of 92 respondents, 55 (59.8%) people had good hand hygiene and 37 (40.2%) people had poor hand hygiene. Based on the variable of towel use, 38 (41.3%) people had good towel use and 54 (58.7%) people had poor towel use. Based on the frequency of bathing variable, 51 (55.4%) people were good and 41 (44.6%) people were not good. Based on the use of footwear, 68 (73.9%) people were good and 24 (26.1%) people were not good. Based on the variable of skin disease incidence, out of 92 respondents, 41 people (44.6%) suffered from skin disease and 51 people (55.4%) did not suffer from skin disease.

Table 3. Bivariate Data

Variabel/Sub-Variabel	Incidence Of Skin Disease				Total		P-Value
	Suffer		No Suffered				
	n	%	n	%	N	%	
Cleanliness of clothing							
Good	8	15.1	45	84.9	53	100	0.001
Not good	33	84.6	6	15.4	39	100	
Hand hygiene							
Good	5	9.1	50	90.9	55	100	0.001
Not good	36	97.3	1	2.7	37	100	
Use of towels							

Good	4	10.5	34	89.5	38	100	0.001
Not good	37	68.5	17	31.5	54	100	
Frequency of bathing							
Good	4	7.8	47	92.2	51	100	0.001
Not good	37	90.2	4	9.8	41	100	
Use of footwear							
Good	33	48.5	35	51.5	68	100	0.237
Not good	8	33.3	16	66.7	24	100	

The table analysis shows the association between the incidence of skin diseases and four different skin hygiene variables: clothing hygiene, hand hygiene, towel use, bathing frequency and footwear use. The table gives an idea of the number of respondents who suffer from skin diseases and the number of respondents who do not suffer from skin diseases, depending on whether they have good skin hygiene.

In the analysis of the clothing hygiene variable, it was seen that out of a total of 53 respondents who had good clothing hygiene, 8 of them suffered from skin diseases (15.1%), while out of 39 respondents who had poor clothing hygiene, 33 of them suffered from skin diseases (84.6%). 39 respondents who had poor clothing hygiene, 33 of them suffered from skin diseases (84.6%). The p-value is 0.001, indicating that there is a significant relationship between clothing hygiene and the incidence of skin diseases.

In the analysis of hand hygiene variables, it was seen that out of a total of 55 respondents who had good hand hygiene, 5 of them suffered from skin diseases (9.15). while out of 37 respondents who had poor hand hygiene 36 of them suffered from skin diseases (97.3%). The p-value was 0.001, indicating that there was an association between hand hygiene and the incidence of skin disease.

In the analysis of towel use variables, out of 38 respondents who had good towel use, 4 of them suffered from skin diseases (10.5%), while out of 54 respondents who had poor towel use, 37 of them suffered from skin diseases (68.5%). The p-value was 0.001, indicating an association between towel use and the incidence of skin disease.

In the analysis of bathing frequency variables, it was seen that out of 51 respondents who had a good bathing frequency, 4 of them suffered from skin diseases (7.8%), while out of 41 respondents who had a poor bathing frequency, 37 of them suffered from skin diseases (90.2%). The p-value is 0.001, indicating that there is an association between bathing frequency and the incidence of skin diseases.

In the analysis of footwear use variables, it can be seen that out of 68 respondents who have good footwear use habits, 33 respondents suffer from skin diseases (48.5%), while out of 24 respondents who have poor footwear use habits, 8 of them suffer from skin diseases (33.3%). The p-value is 0.237 which means that there is no relationship between the use of footwear and the incidence of skin diseases.

Discussion

Relationship Between Clothing Hygiene And Skin Disease Incidence

Clothing is a textile used to protect the body. Apart from food and shelter, clothing is a basic human need. Clothes will absorb sweat, fat, and dirt from the body. Sweaty and oily clothes will become smelly and annoying within a day. Since the body is in a humid state, skin health problems can arise in this situation, so a daily change of clean clothes is necessary.

In this study, there are still many respondents who always lend clothes to fellow families, Frequent lending of clothes can increase the risk of transmission, especially if a person is already infected with a skin disease and is at risk of transmitting it to others. Clothes come into direct contact with the skin and absorb a lot of sweat and body faeces. Therefore, wet and contaminated clothes will cause bacteria to breed on the skin.

From the data presented in the table, it can be seen that out of a total of 53 respondents who have good clothing hygiene, 8 of them suffer from skin diseases (15.1%), while out of 39 respondents who have poor clothing hygiene, 8 suffer from skin diseases (15.1%).39 respondents who had poor clothing hygiene, 33 of them suffered from skin diseases (84.6%). The proportion of skin disease incidence tended to be lower among respondents who had good clothing hygiene than those who had poor clothing hygiene.

Statistical test results showed that there was a significant association between clothing hygiene and the incidence of skin disease, with a p-value of 0.001 <0.05. This indicates that respondents who maintain good clothing hygiene tend to have a lower risk of suffering from skin diseases compared to respondents with poor clothing hygiene.

Relationship Between Hand Hygiene And Skin Disease Incidence

Based on the results of the study, hand and nail hygiene is categorised as poor, because there are still many respondents who do not cut their nails once a week, wash their hands after outside activities and wash their hands using soap after bathing. Like the skin, hands, feet and nails also need to be well cared for, which involves the cleanliness of the surrounding environment and daily habits. Therefore, to avoid the risk of contamination, it is recommended to wash your hands properly before eating or after defecating/urinating, regularly trim your nails, and wash your feet before going to bed.

From the data presented in the table, it can be seen that out of a total of 55 respondents who had good hand and nail hygiene, 5 of them suffered from skin diseases (9.15). whereas out of 37 respondents who had poor hand and nail hygiene 36 of them suffered from skin diseases (97.3%). The proportion of skin disease incidence tended to be lower among respondents who had good hand and nail hygiene than those who had poor hand and nail hygiene.

The results of statistical analyses showed a significant association between hand and nail hygiene and the incidence of skin diseases. In other words, individuals who maintain good hand and nail hygiene tend to have a lower risk of developing skin diseases compared to those who do not. This finding is corroborated by the p-value which is in the range between 0.001 to 0.05.

Relationship Between Towel Hygiene And Skin Disease Incidence

Many respondents in this study used one towel simultaneously in the room and used it in a humid state, indicating that towel hygiene tends to be poor. Moisture in a room or space is known to facilitate the proliferation of bacteria and fungi. As a result, towels used in a humid room or space can allow viruses and bacteria to attach to the user's body.

From the data presented in the table, out of 38 respondents who had good towel hygiene, 4 of them suffered from skin diseases (10.5%), while out of 54 respondents who had poor towel hygiene, 37 of them suffered from skin diseases (68.5%). The proportion of skin disease incidence tended to be lower among respondents who had good towel hygiene compared to those who had poor towel hygiene.

Statistical test results showed that there was a significant association between towel use and skin disease incidence; in other words, people who keep their towels clean and use them well tend to have a lower risk of suffering from skin disease compared to people who do not keep their towels clean. The p-value was 0.001 < 0.05.

Relationship Between Frequency Of Bathing And Incidence Of Skin Diseases.

Skin hygiene included the practice of not bathing twice a day by twenty respondents, bathing without using personal soap by thirty-seven respondents, and not bathing after activities by twenty-two respondents. Lack of bathing more than twice a day can allow germs to multiply more easily because germs tend to like moist areas and can cause odour due to sweat.

From the data presented in the table, it can be seen that out of 51 respondents who have a good bathing frequency, 4 of them suffer from skin diseases (7.8%), while out of 41 respondents who have a poor bathing frequency, 37 of them suffer from skin diseases (90.2%). The p-value was 0.001, indicating an association between frequency of bathing and incidence of skin disease.

The statistical test results show that the p-value of 0.001<0.05, which means that there is a significant relationship between the frequency of bathing and the incidence of skin diseases. This shows that respondents who have a good bathing frequency tend to have a lower risk of suffering from skin diseases compared to those who have a poor bathing frequency.

Relationship Between The Use Of Footwear And The Incidence Of Skin Diseases.

Feet that are often in contact with various surfaces can become a place for the accumulation of germs. One area of the body that is susceptible to skin diseases such as scabies or foot fungus is the skin of the feet. Respondents in this study did not use footwear when leaving the house and did not wash their feet with soap before going to bed. These bad habits, which neglect foot hygiene, can be a source of this disease. As moist conditions are a favoured environment for germs that cause skin diseases such as scabies, the habit of keeping feet moist can also have a negative impact.

From the data presented in the table, it can be seen that out of 68 respondents who had good footwear habits, 33 respondents suffered from skin diseases (48.5%), while out of 24 respondents who had poor footwear habits, 8 of them suffered from skin diseases (33.3%). The proportion of skin disease incidence tended to be lower among respondents who had good footwear use compared to those who had poor footwear use. However, the statistical test results showed that the p-value was 0.237>0.05, indicating that this difference was not statistically significant.

Although there was no statistically significant relationship between footwear use and the incidence of skin diseases based on the p-value, the proportion of respondents suffering from skin diseases still had a significant difference between the two groups. This suggests that although not statistically significant, there is a tendency that respondents who have poor footwear habits tend to have a higher risk of suffering from skin diseases compared to those who have good footwear habits.

Conclusions

There was a significant association between clothing hygiene, hand and nail hygiene, towel use, and frequency of bathing with the incidence of skin diseases, as indicated by a p-value of 0.001 < 0.05. However, there was no statistically significant association between footwear use and skin disease incidence, with a p-value of 0.237 > 0.05.

Advice

It is recommended for the coastal community of Lorong Mesjid LK. IV Bagan Deli Belawan to pay more attention to personal hygiene which includes skin hygiene including cleanliness of clothing, cleanliness of hands and nails, cleanliness of towels, increasing the frequency of bathing and using footwear when leaving the house. How to maintain it by not lending personal tools to others such as clothes, towels and toiletries.

References

[1] Affandi, A. A. N. (2019). The Study Of Personal Hygiene And The Existence Of Sarcoptes Scabiei In The Sleeping Mats Dust And Its Effects On Scabiesis Incidence Amongst Prisoners At Iib Class Penitentiary, Jombang District. *Jurnal Kesehatan Lingkungan*, *11*(3), 165-174.

[2] Asyari, N., Setiyono, A., & Faturrahman, Y. (2023). Hubungan Personal Hygiene Dan Sanitasi Lingkungan Dengan Kejadian Skabies Di Wilayah Kerja Puskesmas Salawu Kabupaten Tasikmalaya. *Jurnal Kesehatan Komunitas Indonesia*, *19*(1).

[3] Aulia, N., Wijayantono, W., & Awaluddin, A. (2022). Personal Hygiene Dengan Kejadian Penyakit Scabies Di Pondok Pesantren Thawalib Kota Padang. *Jurnal Sanitasi Lingkungan*, *2*(2), 72-78.

[4] Lukman, Dkk. (2023). Edukasi Pencegahan Penyakit Skabies Melalui Peer Educator Di Sekolah Enterpreneur Tahfidz Kekasih Al-Aqsha, Gowa, Sulawesi Selatan. *Jurnal Pengabdi Kefarmasian.*. Vol. 4, No. 2.

[5] Mulyani, W. (2022). Penyuluhan Personal Hygiene Untuk Meningkatkan Kesehatan Kulit Anak-Anak Panti Asuhan Hikmah Rumbai Pekanbaru. *Jurnal Pengabdian Masyarakat.* Volume 1, No.06

[6] Purwaningsih. D., Fauzan, A., & Irianty, H. (2021). Hubungan Personal Hygiene Dan Sumber Air Dengan Kejadian Penyakit Kulit Di Pulau Bromo Kelurahan Mantuil Tahun 2021. Fakultas Kesehatan Masyarakat, Universitas Islam Kalimantan Muhammad Arsyad Al Banjari., 1-10

[7] Rahayu, Novita Sri, Ade Dita Puteri, And Lira Mufti Azzahri Isnaeni. "Hubungan Perilaku Masyarakat Dan Penggunaan Air Sungai Dengan Gangguan Penyakit Kulit Di Desa Kampung Pinang Wilayah Kerja Puskesmas Pantai Raja." Jurnal Ilmiah Ilmu Kesehatan

[8] 2.1 (2023): 435-442.

[9] Rahmah, F. (2023). Hubungan Personal Hygiene Terhadap Kejadian Scabies Di Pondok Pesantren Al-Mukmin Ngruki Sukoharjo Tahun 2023. *Proceeding Book Call For Papers Fakultas Kedokteran Universitas Muhammadiyah Surakarta*, 185-197.

[10] Samosir, K., dkk. (2020). Hubungan Personal Hygiene dengan Kejadian Skabies di Pondok Pesantren Madani Unggulan, Kabupaten Bintan. *Jurnal Ilmu Kesehatan Masyarakat. 9*

[11] (3): 144-152

[12] Sapitri, P. (2023). *Gambaran Faktor Personal Hygiene Dan Sanitasi Lingkungan Rumah Penderita Pytiriasis Versicolor (Panu) Di Wilayah Kerja Puskesmas Ngarip Kabupaten Tanggamus Tahun 2022* (Doctoral Dissertation, Poltekkes Kemenkes Tanjungkarang).

[13] Siregar, M. D. S. (2019). Hubungan Pengetahuan Ibu Dengan Penerapan Perilaku Hidup Bersih Dan Sehat Pada Keluarga Di Desa Labuhan Rasoki Tahun 2019.

[14] Zuryani, I., Noviana, Z. (2024). Studi Kasus Penatalaksanaan Skabies Pada Anak Laki-Laki Usia 12 Tahun Melalui Pendekatan Kedokteran Keluarga Di Wilayah Kerja Puskesmas Tanah Pasir. *Jurnal Inovasi Riset Ilmu Kesehatan*. Vol. 2 No. 1.

[15] Zahtamal. Z., Restila, R., Restuastuti, T., Anggraini, Y. E., & Yusdiana, Y. (2022). Analisis Hubungan Sanitasi Lingkungan Terhadap Keluhan Penyakit Kulit. Jurnal Kesehatan Lingkungan Indonesia, 21(1), 9-17. https://doi.org/10.14710/jkli.21.1.9-17