

The Relationship Between Work, Clean Water Supply and Personal Hygiene with the Incident of Dermatitis in Lubuk Rukam Village in the Working Area of UPTD Public Health Center of Lubuk Rukam, Peninjauan District, OKU Regency in 2025

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Abstract—The background In Indonesia dermatitis cases in 2022 were 703,270. Sufferer dermatitis in South Sumatra as much as 35.25%, while in East OKU in 2023 as much as 4.16%. On UPTD Lubuk Rukam Health Center, Peninjauan District, OKU Regency, Dermatitis is the second most common disease out of the 10 largest diseases with a total of 826 (18.08%) 2025. To Analyze the Relationship between Work, Clean Water Provision and Personal Hygiene with the Incidence of Dermatitis in Lubuk Rukam Village in the Working Area of the UPTD Lubuk Rukam Health Center, Peninjauan District, OKU Regency in 2025. This research uses quantitative with an approach using cross sectional. Population All the residents of Lubuk Rukam village. Sample in this study there were 97 respondents. This Result is the Relationship Between Respondents' Occupations and the Incidence of Dermatitis p value 0.003. The Relationship Between Clean Water Supply and the Incidence of Dermatitis p value 0.000. Furthermore, the p value for the association between personal hygiene and the occurrence of dermatitis is 0.030. Conclusion from this research, namely There is a Significant Relationship Between Respondents' Occupations and the Incidence of Dermatitis in the Working Area of the UPTD Lubuk Rukam Health Center, Peninjauan District, OKU Regency in 2025. There is a Significant Relationship Between Clean Water Supply Used by Respondents and the Incidence of Dermatitis in the Working Area of the UPTD Lubuk Rukam Health Center, Peninjauan District, OKU Regency in 2019. There is a Significant Relationship Between Personal Hygiene and the Incidence of Dermatitis in the Working Area of the UPTD Lubuk Rukam Health Center, Peninjauan District, OKU Regency in 2025. The results of this study are correlational.

Keywords— Dementia, Occupation, Clean Water Supply, Personal Hygiene.

I. INTRODUCTION

Dermatitis is a common inflammatory skin condition characterized by itching, redness, and a rash. Although dermatitis is not usually fatal, it can have a major negative impact on the lives of those who have it. The discomfort from intense itching, sleep disturbances, and potential secondary infections can pose a significant burden for sufferers. This condition encompasses various types, including atopic dermatitis or eczema, and contact dermatitis (irritant and allergic). This study will focus on the broader category of dermatitis in relation to environmental and occupational factors (Tian et al., 2023).

The incidence and prevalence of dermatitis have shown a global increase, making it a major cause of skin disease burden worldwide. This condition can cause substantial health loss, economic burden, and suffering across all age groups. When measuring the burden of disease using *disability-adjusted life years*, dermatitis ranks among the top non-fatal diseases globally. This study specifically links occupational contexts related to water supply, which potentially involve exposure to irritants or allergens (e.g., chemicals used in water treatment, prolonged wet work) that can contribute to contact dermatitis. Furthermore, poor personal hygiene practices, particularly in the absence of adequate clean water, are also associated with an increased risk of various skin diseases,

including dermatitis. (Li et al., 2025) .

Prevalence data reports the prevalence of dermatitis in South Sumatra at 35.25%. The population suffered from dermatitis in 2023. Meanwhile, in Ogan Komering Ulu Regency, the prevalence of dermatitis was reported at 17.9%. In 2023, OKU Regency reported dermatitis as one of the top 10 diseases, with 1,849 cases reported. This represents a prevalence of 4.16% among the top 10 diseases. (South Sumatra Provincial Health Office, 2025).

Data at the UPTD Lubuk Rukam Health Center, Peninjauan District, OKU Regency Dermatitis disease is the second largest disease out of 10 with a total of 826 (18.08%) in 2025. The data shows that dermatitis, especially allergic contact dermatitis, is a common health problem, geographically relevant but focused on children and has an impact on work aspects.

Based on the description of the data above, the researcher is interested in researching " The Relationship Between Work, Provision of Clean Water and Personal Hygiene with the Incidence of Dermatitis in the Work Area of the UPTD Lubuk Rukam Health Center, Peninjauan District, OKU Regency in 2025".

II. RESEARCH METHODS

In this research design, the method used is quantitative with approach using *cross-sectional* Darussalam et al., (2019).

The sample of dermatitis patients in Lubuk Rukam Village, Peninjauan District, OKU Regency, South Sumatra Province totaled 97 respondents (Purposive Sampling). Analysis data Which used in the research is a *chi square* test at a 95% confidence level.

III. RESEARCH RESULT

1. Frequency Distribution of Respondents ' Dermatitis

TABLE 1. Frequency Distribution of Respondents ' Dermatitis

No	Category	Frequency (n)	Percentage (%)
1	Dermatitis	38	39.2%
2	No Dermatitis	59	60.8%
	Total	97	100%

Based on Table 1 it can be seen that Dermatitis respondents at the research site who Yes 38 (39.2 %), smaller than those who did not 59 (60.8%).

2. Frequency Distribution of Respondents ' Occupations

TABLE 2. Frequency Distribution of Respondents ' Occupations

No	Category	Frequency (n)	Percentage (%)
1	High Risk	48	49.5%
2	Low Risk	49	50.5%
	Total	97	100%

Based on table 2, it can be seen that high- risk jobs 48 (49.5 %) is smaller than the 49 (50.5 %) that meet the requirements.

3. Distribution of Respondents ' Clean Water Provision Frequency

TABLE 3. Respondents' Clean Water Provision Frequency

No	Category	Frequency (n)	Percentage (%)
1	Does Not Meet Physical Water Requirements	52	53.6%
2	Meets Physical Water Requirements	45	46.4%
	Total	97	100%

Based on table 3, it can be seen that the Provision of Clean Water who do not meet the requirements a number of 52 (53.6 %), which is greater than the number of eligible 45 (46.4 %).

4. Frequency Distribution of Respondents ' Personal Hygiene

TABLE 4. Frequency Distribution of Respondents ' Personal Hygiene

No	Category	Frequency (n)	Percentage (%)
1	Not Hygienic	31	32.0
2	Hygiene	66	68.0
	Total	97	100%

Based on table 4, it can be seen that the hygiene of individuals who are not hygienic is 32.0 % smaller than those who are hygienic. 68, 0 %.

5. The Relationship Between Respondents' Occupations and the Incidence of Dermatitis in the Working Area of the UPTD Lubuk Rukam Health Center, Peninjauan District, OKU Regency in 2025

Based on table 5, it can be seen that the proportion of high-risk occupational respondents suffering from dermatitis 54.2 %, is greater when compared to the proportion of respondents

whose occupations are low-risk and suffering from dermatitis 24.5 %.

TABLE 5. The Relationship Between Respondents' Occupations and the Incidence of Dermatitis in the Work Area of the UPTD Lubuk Rukam Health Center, Peninjauan District, OKU Regency in 2025

No	Work	Dermatitis		Total	p-value
		Yes	No		
1	High Risk	26 (54.2%)	22 (45.8%)	48	0.003
2	Low Risk	12 (24.5%)	37 (75.5%)	49	
	Total	38	59	97	

The results of the Chi-square analysis obtained a *p value* of 0.003 which is smaller than α 0.05, meaning that there is a *significant relationship* between the respondent's occupation and the incidence of dermatitis.

6. The Relationship Between Clean Water Supply Used by Respondents and the Incidence of Dermatitis in the Working Area of the UPTD Lubuk Rukam Health Center, Peninjauan District, OKU Regency in 2025

TABLE 6. The Relationship Between Clean Water Supply Used by Respondents and the Incidence of Dermatitis in the Working Area of the UPTD Lubuk Rukam Health Center, Peninjauan District, OKU Regency in 2025

No	Clean water	Dermatitis		Total	p-value
		Yes	No		
1	Does Not Meet Physical Water Requirements	10 (19.2%)	42 (80.8%)	52	0.000
2	Meets Physical Water Requirements	28 (62.2%)	17 (37.8%)	45	
	Total	38	59	97	

Based on table 6, it can be seen that from the proportion of respondents who Clean Water Meets Physical Requirements and Suffers from Dermatitis 62.2 %, greater than the proportion of respondents who Clean Water Does Not Meet the Physical Requirements of Water and Suffers Dermatitis 19.2 %.

The results of the chi-square analysis obtained a *p value* of 0.000 which is smaller than α 0.05, meaning that there is a significant relationship between the provision of clean water used by respondents and the incidence of dermatitis.

7. The Relationship Between Personal Hygiene and the Incidence of Dermatitis in the Working Area of the UPTD Lubuk Rukam Health Center, Peninjauan District, OKU Regency in 2025

TABLE 7. The Relationship Between Personal Hygiene and the Incidence of Dermatitis in the Working Area of the UPTD Lubuk Rukam Health Center, Peninjauan District, OKU Regency in 2025

No	Hygiene Individual	Dermatitis		Total	p-value
		Yes	No		
1	Not Hygienic	17 (54.8%)	14 (45.2%)	31	0.030
2	Hygiene	21 (31.8%)	45 (68.2%)	66	
	Total	38	59	97	

Based on table 7, it can be seen that from the proportion of respondents regarding personal hygiene not hygienic and suffering from dermatitis 54.8 %, which is greater than the proportion of incidents of personal hygiene that are hygienic and suffer from dermatitis 31.8 %.

The results of the chi-square analysis obtained a *p* value of 0.030 which is smaller than α 0.05, meaning there is a significant relationship between personal hygiene and the incidence of dermatitis.

IV. DISCUSSION

1. *The Relationship Between Respondents' Occupations and the Incidence of Dermatitis in the Work Area of the UPTD Lubuk Rukam Health Center, Peninjauan District, OKU Regency in 2025*

From the research results obtained univariate analysis of 97 data, it is known that there are High Risk Jobs as many as 48 (49.5%), smaller than the Low Risk data, namely as many as 49 (50.5 %). The bivariate results of the proportion of Respondents with high risk jobs and suffering from Dermatitis 54.2 %, greater when compared to the proportion of respondents whose jobs are low risk and suffering from Dermatitis 24.5 %. Based on the results of the *Chi square* statistical test data analysis, the *p*-value was 0.03. So it can be concluded that the results of the research conducted There is a Relationship Between Respondents' Occupations and the Incidence of Dermatitis in the Work Area of the UPTD Lubuk Rukam Health Center, Peninjauan District, OKU Regency in 2025.

The results of this study are in line with the research conducted by Aisyiah, I. Kamala, Sri Mindayani, & Afifah Ramadhani. (2023) entitled Factors Associated with Contact Dermatitis in Fishermen in the Koto Kaciak District, Agam Regency, which stated that there was a Relationship Between Respondents' Occupations and the Incidence of Dermatitis. Judging from the results of the Chi-square statistical test data analysis, the *p*-value was $0.000 < 0.05$. The results of this study are also the same as the conclusions of the journal Batubara, IS, Hardjodipuro, A., & Widaty, S. (2021) entitled The Relationship Between Occupations as Health Workers and the Incidence of Occupational Contact Dermatitis, which stated that the *p*-value was $0.003 < 0.05$, meaning there was a Relationship Between Respondents' Occupations and the Incidence of Dermatitis. This is also supported by research conducted by Bela Nurfitri Erida, HS and WPM (2024) in the *Scientific Journal of Science, Technology, Economics, Social and Culture* which states that there is a relationship between respondents' occupations and the incidence of dermatitis. Strengthened by research by Filda, S., & Tosepu, R. (2024) entitled Factors Influencing the Incidence of Dermatitis in Garbage Transporters, the *p*-value results were $0.000 < 0.05$, the results of the study stated that there was a Relationship Between Respondents' Occupations and the Incidence of Dermatitis.

Dermatitis, especially contact dermatitis, is closely related to work because many jobs involve contact with substances that can cause skin irritation or allergies. Occupational dermatitis can be irritant or allergic contact dermatitis. Jobs that involve frequent hand washing or continuous exposure to liquids can cause the skin to become alternately wet and dry, increasing the risk of irritant contact dermatitis, such as occurs in cleaners or workers in the food industry. (Earlia et al.,

2022) . Many jobs involve the use of chemicals that can irritate or cause allergic reactions to the skin. Examples include construction workers exposed to cement, or salon workers exposed to hair dye products. Jobs that involve physical contact with materials such as metals, fibers, or certain plants can also trigger dermatitis. (Hasliani, 2021).

2. *The Relationship Between Clean Water Supply Used by Respondents and the Incidence of Dermatitis in the Working Area of the UPTD Lubuk Rukam Health Center, Peninjauan District, OKU Regency in 2025*

From the research results, a univariate analysis of 97 data was obtained, showing that there was a provision of clean water used by respondents. Yes, as many as 45 (46.4 %), smaller than the data on the provision of clean water used by respondents. No, namely as many as 52 (53.6 %). Bivariate results of the proportion of respondents with clean water who are at high risk suffering from dermatitis 62.2 %, greater than the proportion of Clean Water Not Suffering incidents Dermatitis 19.2 %. Based on the results of the *Chi-square* statistical test data analysis, the *p*-value was 0.000. Therefore, it can be concluded that the results of the research conducted have a *significant relationship*. Provision of Clean Water Used by Respondents with Dermatitis Incidents in the Working Area of the UPTD Lubuk Rukam Health Center, Peninjauan District, OKU Regency in 2025.

The results of this study are in line with the research conducted by Fitriani, M., Fathmawati, F., & Yulia, Y. (2024) entitled The Relationship between Water Sources and Personal Hygiene with the Incidence of Skin Diseases at the Perumna s Health Center. which states that there is a relationship between Clean Water with Dermatitis Incident. Judging from the results of the Chi-square statistical test data analysis, the *p*-value was $0.000 < 0.05$. The results of this study are also the same as the conclusions of the journal Utari, R., & Aprilia, NA (2017) entitled Analysis of Clean Water Needs in East Ogan Komering Ulu Regency, South Sumatra. which states that the *p*-value results of $0.001 < 0.05$ mean that there is a significant relationship between Clean Water with Dermatitis Incident. This is also supported by research conducted by Suryani, F., & Shofwati, I. (2024) in the *Scientific Journal of Dermatology and Venereology* which states that there is a relationship between Clean Water with Dermatitis Incident.

Clean water plays a crucial role in preventing dermatitis. Irritants or allergens that come into contact with the skin are common causes of dermatitis, particularly contact dermatitis. Using clean water for bathing, washing hands, and cleaning the environment can reduce exposure to substances that can trigger dermatitis. (Saleh & Yanti, 2021) . The quality of water used for daily needs, such as bathing and washing, can affect the risk of dermatitis. Using water contaminated with waste or chemicals can trigger skin reactions. Frequent exposure to water, especially unclean water, can increase the risk of dermatitis in some people, especially those with sensitive skin. (Indra Lasmana Tarigan, 2021) . Poor environmental sanitation, including the availability of clean water and poor waste management, can contribute to the spread of dermatitis-causing agents. (Indah Rachmatiah Siti Salami, 2022) .

3. *The Relationship Between Personal Hygiene and the Incidence of Dermatitis in the Working Area of the UPTD Lubuk Rukam Health Center, Peninjauan District, OKU Regency in 2025*

From the research results obtained from 97 data, it is known that the proportion of respondents regarding personal hygiene not hygienic and suffering from dermatitis 54.8 %, which is greater than the proportion of incidents of personal hygiene that are hygienic and suffer from dermatitis Dermatitis 31.8 %. Based on the results of the *Chi-square* statistical test data analysis, the *p-value* was 0.030. Therefore, it can be concluded that the results of the research conducted have a *significant relationship*. Personal Hygiene with Dermatitis Incidence in the Working Area of UPTD Lubuk Rukam Health Center, Peninjauan District, OKU Regency in 2025.

The results of this study are in line with the research of Wulandari, D., Saftarina, F., & Sudjarwo MA. (2023) entitled Analysis of the Relationship of Personal Hygiene with the Incidence of Dermatitis in Farmers, Indonesia. The results of the study show that this study has a relationship between Personal Hygiene and the Incidence of Dermatitis. The results of this study are also the same as the conclusions of the journal Avila Evi Kustanti, T., Karunia Estri, A., & Ratnawati, E. (2024) entitled The Relationship Between Personal Hygiene Patterns and Dermatitis Incidents Among Horticultural Farmers in Sendangagung, which states the results of the *p-value* 0.000 < 0.01 means there is a significant relationship between Personal Hygiene and the Incidence of Dermatitis.

Personal hygiene plays a crucial role in preventing and reducing the incidence of dermatitis. Dermatitis, especially contact dermatitis, is often triggered by irritants or allergens that enter the skin due to poor personal hygiene. (Pudjiati et al., 2020) . Regular bathing, especially after exposure to potentially irritating substances, can help remove irritants and prevent contact dermatitis. Choosing a gentle, non-irritating soap and avoiding frequent soap use can help maintain skin moisture and prevent dermatitis. Scratching can worsen inflammation and increase the risk of infection, especially in sensitive skin. Dirty, damp clothing can become a breeding ground for bacteria and fungi, which can trigger dermatitis. Changing clothes regularly, especially underwear, can help prevent this. (Mansur & Marmi, 2022) .

V. CONCLUSION AND SUGGESTIONS

Based on results study Which has done so can in draw conclusions as following:

1. There is a Relationship Between Respondents' Occupations and the Incidence of Dermatitis in the Work Area of the UPTD Lubuk Rukam Health Center, Peninjauan District, OKU Regency in 2025 with *p value* 0.003.
2. There is a Relationship between the Provision of Clean

Water Used by Respondents and the Incidence of Dermatitis in the Working Area of the UPTD Lubuk Rukam Health Center, Peninjauan District, OKU Regency in 2025 with *p value* 0.000.

3. There is a Relationship Between Personal Hygiene and the Incidence of Dermatitis in the Working Area of the UPTD Lubuk Rukam Health Center, Peninjauan District, OKU Regency in 2025 with *p value* 0.030.

Based on results study Which has done so suggestions as following:

1. It is hoped that they can play a more active role in providing health education to the community, providing regular training to the community regarding the importance of sanitation and ways to maintain personal and environmental hygiene to avoid dermatitis.
2. it is important to protect the skin, should be in providing fertilizer and insecticide materials use protective equipment such as gloves, masks and boots, maintain cleanliness, and consult a doctor if necessary .
3. It's important to maintain good personal hygiene, use clean water, and avoid irritants. It's also important to use gentle soap and moisturizer, and to keep your skin hydrated to perform all its vital functions, such as protecting it .
4. For personal hygiene, things that can be done include: bathing regularly, using mild soap, keeping hands and nails clean, and avoiding dermatitis triggers such as irritants and allergens.

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