Jurnal Multidisiplin Ilmu Kesehatan
ISSN : xxxx- xxxx

2026, Vol. 1, No. 1
98 - 112
Doi: 00000

Upaya Pencegahan Penyakit Kusta Melalui Edukasi Penerapan PHBS di Panti Asuhan Al-Hidayah Batu Ringgit

Raisya Hasina[1*], Fawwaz Aqila Putri[2] ,Dhea Syafitri Dwiyanti[3], Halimatussakdiyah[4], Layla Fatihatussir[5] , Marina Ulfa[6]

[1 ,2,3,4,5,6] *Departament of Pharmacy Faculty of Medicine, Universitas Mataram, Mataram, Indonesia*
[*]Corresponding author : Raisya Hasina, Email: raisya@unram.ac.id

ABSTRACT

Leprosy is a chronic infectious disease caused by Mycobacterium leprae and remains a public health problem, particularly in endemic areas. This disease affects the skin, peripheral nerves, and other organs, potentially leading to permanent disability if not properly treated. Densely populated environments such as orphanages are at high risk of leprosy transmission due to close physical contact and low awareness of personal hygiene. This community service activity aims to increase the knowledge and awareness of children at the Al-Hidayah Batu Ringgit Orphanage regarding leprosy prevention through the implementation of Clean and Healthy Living Behaviors (PHBS). The methods used included a pretest, material delivery, handwashing demonstration, question-and-answer session, and posttest. A total of 41 children participated, ranging from elementary to high school levels. Posttest results showed a significant increase in the average knowledge score after the educational intervention. These findings demonstrate that PHBS education is effective in improving understanding and awareness regarding leprosy prevention among orphanage children.

Keyword : *Leprosy, PHBS, Orphanage, Health Promotion*

Jurnal Multidisiplin Ilmu Kesehatan
ISSN : xxxx- xxxx

2026, Vol. 1, No. 1
98 - 112
Doi: 00000

ABSTRAK

Kusta merupakan penyakit menular kronis yang disebabkan oleh Mycobacterium leprae dan masih menjadi masalah kesehatan masyarakat, khususnya di wilayah endemis. Lingkungan padat penghuni seperti panti asuhan menjadi salah satu lokasi berisiko tinggi terhadap penyebaran penyakit kusta akibat intensitas kontak yang tinggi dan rendahnya kesadaran menjaga kebersihan diri. Kegiatan pengabdian masyarakat ini bertujuan untuk meningkatkan pengetahuan dan kesadaran anak anak Panti Asuhan Al-Hidayah Batu Ringgit mengenai upaya pencegahan penyakit kusta melalui penerapan Perilaku Hidup Bersih dan Sehat (PHBS). Metode kegiatan meliputi pretest, penyampaian materi, demonstrasi cuci tangan, sesi tanya jawab, dan posttest. Jumlah peserta sebanyak 41 anak dari jenjang SD hingga SMA. Hasil posttest menunjukkan peningkatan signifikan pada rata-rata skor pengetahuan setelah edukasi diberikan. Artinya, edukasi PHBS efektif dalam meningkatkan pemahaman dan kesadaran mengenai pencegahan kusta pada anak-anak panti asuhan.

Kata kunci : Kusta, PHBS, Panti asuhan, Promosi Kesehatan

Jurnal Multidisiplin Ilmu Kesehatan
ISSN : xxxx- xxxx

2026, Vol. 1, No. 1
98 - 112
Doi: 00000

1. INTRODUCTION

The skin is the outermost organ of the body and serves as a protective barrier against various environmental exposures. When skin health is not properly maintained, a range of skin diseases may develop, particularly in tropical regions such as Indonesia, which are characterized by high humidity and dense populations (Srisantyorini & Cahyaningsih, 2019). One skin disease that remains a public health problem is leprosy, a chronic infectious disease caused by Mycobacterium leprae (Prakoeswa & Puspitasari, 2021).

Leprosy affects the skin, peripheral nerves, and other body tissues, leading to symptoms such as numb skin lesions, decreased sensory perception, motor impairment, and even deformities if left untreated (Mindasari et al., 2025). The disease is transmitted through prolonged close contact, primarily via respiratory droplets from infected individuals, although its transmission rate is slower than that of many other infectious diseases. Limited public awareness and negative stigma toward leprosy often result in delayed diagnosis and treatment, thereby increasing the risk of complications (Ariningsih, 2023).

Globally, the World Health Organization (WHO) reports approximately 213,899 new cases of leprosy each year, with Indonesia being one of the countries bearing the highest disease burden, alongside India and Brazil (WHO, 2015). In Indonesia, the number of leprosy cases has remained relatively stable, although several regions have shown an increasing trend. In the Province of West Nusa Tenggara (NTB), cases rose from 217 in 2022 to 248 in 2023 (NTB Provincial Health Office, 2024). Mataram City is one of the cities in

Jurnal Multidisiplin Ilmu Kesehatan
ISSN : xxxx- xxxx
2026, Vol. 1, No. 1
98 - 112
Doi: 00000

NTB and is considered a high-risk area due to its relatively high population density.

Communal living environments, such as orphanages, have a higher potential for disease transmission, as children live together, share facilities, and have close interpersonal contact. Clean and Healthy Living Behavior (*Perilaku Hidup Bersih dan Sehat* / PHBS) plays an important role in preventing the spread of infectious diseases, including leprosy. Proper handwashing practices, maintaining skin hygiene, avoiding the sharing of personal items, and ensuring adequate indoor air circulation are preventive measures that have been proven effective in minimizing disease transmission (Ministry of Health of the Republic of Indonesia, 2016). Therefore, health promotion activities are conducted to improve orphaned children's knowledge of leprosy and PHBS as preventive efforts to reduce the risk of disease transmission within the orphanage environment.

METHOD

This community service activity was conducted at Al-Hidayah Batu Ringgit Orphanage, Sekarbela District, Mataram City, West Nusa Tenggara, involving a total of 41 participants ranging from elementary to senior high school levels. This location was selected because it represents a densely populated living environment with a high risk of leprosy transmission due to close interpersonal contact among residents, the habit of sharing personal items, and the low implementation of Clean and Healthy Living Behavior (*Perilaku Hidup Bersih dan Sehat* / PHBS). These conditions highlight the

Jurnal Multidisiplin Ilmu Kesehatan
ISSN : xxxx- xxxx
2026, Vol. 1, No. 1
98 - 112
Doi: 00000

importance of conducting health promotion activities focused on leprosy prevention through improving knowledge and personal hygiene practices.

The implementation method consisted of several stages, including a pretest, material presentation, question-and-answer session, handwashing demonstration, and posttest. The pretest was administered to all participants to assess their baseline knowledge of leprosy and PHBS. This was followed by the delivery of educational material covering the definition of leprosy, its causes, modes of transmission, symptoms, treatment, and preventive measures through the application of PHBS principles. The material was delivered orally using PowerPoint presentations and tutorial videos to facilitate participants' understanding.

After the completion of all educational sessions and demonstrations, participants were asked to complete a posttest as an evaluation of knowledge improvement compared to the pretest results. The pretest and posttest results were used to assess the effectiveness of the health education program in enhancing the orphaned children's understanding of leprosy prevention through PHBS.

Jurnal Multidisiplin Ilmu Kesehatan
ISSN : xxxx- xxxx

2026, Vol. 1, No. 1
98 - 112
Doi: 00000

Figure 1. Health Education Materials

2. RESULT

Table 1. Distribution of Respondents by Gender

Jenis Kelamin	Frekuensi	Persentase
Laki-laki	18	43,9%
Perempuan	23	56,1%
Total	41	100%

Based on Table 1, the gender distribution of respondents at Al-Hidayah Baturinggit Orphanage showed that among the 41 participants, 18 (43.9%) were male and 23 (56.1%) were female.

Table 2. Distribution of Respondents by Educational Level

Jurnal Multidisiplin Ilmu Kesehatan
ISSN : xxxx- xxxx
2026, Vol. 1, No. 1
98 - 112
Doi: 00000

Pendidikan	Frekuensi	Persentase
SD	10	24,4%
SMP	25	61,0%
SMA	6	14,6%
Total	41	100%

Based on Table 2, the educational level distribution of respondents at Al-Hidayah Baturinggit Orphanage indicates that most participants were from the junior high school level (SMP), totaling 25 respondents (61.0%), while the fewest respondents were from the senior high school level (SMA), with 6 respondents (14.6%).

Table 3. Distribution of Respondents' Knowledge Levels (Pre-test)

Nilai	Frekuensi	Persentase
Kurang (<70)	12	24,4%
Baik (>70)	29	75,6%
Total	41	100%

Based on Table 3, among the 41 respondents at Al-Hidayah Baturinggit Orphanage in 2025, the majority demonstrated a good level of knowledge, accounting for 29 respondents (75.6%), while 12 respondents (24.4%) had a low level of knowledge. These findings indicate that most respondents had a good level of knowledge at the pre-test stage.

Table 4. Distribution of Respondents' Knowledge Levels (Post-test)

Nilai	Frekuensi	Persentase
Kurang (<70)	6	14,6%
Baik (>70)	35	85,4%

Jurnal Multidisiplin Ilmu Kesehatan
ISSN : xxxx- xxxx
2026, Vol. 1, No. 1
98 - 112
Doi: 00000

Total	41	100%

Based on Table 4, among the 41 respondents in the post-test, most demonstrated a good level of knowledge, accounting for 35 respondents (85.4%), while only 6 respondents (14.6%) had a low level of knowledge. These findings suggest an improvement in knowledge following the intervention, as indicated by the increase in the proportion of respondents with good knowledge and the decrease in those with low knowledge compared with the pre-test results.

Table 5. The Effect of Health Education on the Knowledge Level of Orphanage Children

Tingkat Pengetahuan	Mean	n	Std. Deviation	P.value
pre-test	84,1	41	15,96	0,000
post-test	96,8	41	7,56	

Based on Table 5, the mean knowledge score of respondents increased from 84.1 in the pre-test to 96.8 in the post-test. The standard deviation also decreased from 15.96 to 7.56, indicating that the variation in knowledge scores among respondents at the post-test stage was smaller and more homogeneous compared to the pre-test stage.

The results of the normality test showed a value of $p = 0.000$, indicating that the data were not normally distributed. Therefore, the analysis of differences in knowledge levels could not be performed using a paired *t*-test and was instead conducted using the non-parametric Wilcoxon Signed Rank Test. The Wilcoxon

Jurnal Multidisiplin Ilmu Kesehatan
ISSN : xxxx- xxxx
2026, Vol. 1, No. 1
98 - 112
Doi: 00000

test yielded a *p*-value of 0.000 ($p < 0.05$), indicating a statistically significant difference between the pre-test and post-test scores.

3. DISCUSSION

Health education is an important effort to improve public knowledge and awareness regarding infectious diseases, including leprosy. Leprosy remains a public health problem that requires special attention because it can cause long-term consequences if not properly managed, particularly among vulnerable groups such as children living in orphanage environments. Therefore, structured, interactive, and easily understandable educational activities are essential to help participants recognize the symptoms, understand preventive measures, and appreciate the importance of practicing Clean and Healthy Living Behavior (PHBS). In the health education activity conducted at Al-Hidayah Batu Ringgit Orphanage, the program was systematically organized to ensure that participants not only understood the material theoretically but were also able to apply it in their daily lives.

The activity was attended by 41 participants, consisting of 18 males (43.9%) and 23 females (56.1%). The participants were distributed across different educational levels, including 10 elementary school students (24.4%), 25 junior high school students (61.0%), and 6 senior high school students (14.6%).

The activity began with the administration of a pre-test to all participants to assess and measure their baseline knowledge regarding leprosy and PHBS. The pre-test results showed that most participants had a good level of knowledge, totaling 29 individuals (75.6%), while 12 participants (24.4%)

Jurnal Multidisiplin Ilmu Kesehatan
ISSN : xxxx- xxxx
2026, Vol. 1, No. 1
98 - 112
Doi: 00000

had a low level of knowledge. These results served as a basis for evaluating the effectiveness of the educational intervention.

Following the pre-test, participants received educational material covering the definition of leprosy, its signs and symptoms, modes of transmission, treatment, and preventive measures. In addition, the role of PHBS in preventing the transmission of skin diseases, including leprosy, was explained, emphasizing the importance of maintaining personal hygiene and environmental cleanliness.

Figure 2. Presentation of Educational Material on Leprosy (Kusta)

To strengthen participants' understanding, strategies to improve public knowledge about leprosy can include the use of visual media, group discussions, and hands-on practice. Participatory approaches have been shown to enhance the ability to understand health information compared to one-way educational methods (Sugiritama et al., 2021; Bahar et al., 2025). Based on this strategy, one applicable approach is the demonstration of Clean and Healthy Living Behavior (PHBS), such as maintaining skin hygiene, practicing proper handwashing, and maintaining environmental sanitation. This demonstration was intended to be applied in daily life to prevent the occurrence and transmission of leprosy. It was conducted directly through visual examples and group practice, allowing participants to better understand the correct

Jurnal Multidisiplin Ilmu Kesehatan
ISSN : xxxx- xxxx
2026, Vol. 1, No. 1
98 - 112
Doi: 00000

procedures and distinguish them from inappropriate habits. In addition, considering that the dormitory rooms at Al-Hidayah Batu Ringgit Orphanage receive limited sunlight, the children were encouraged to open their bedroom windows every morning to reduce humidity and improve air circulation.

The demonstration materials focused on several key behaviors directly related to the prevention of skin diseases, including leprosy, such as proper handwashing using soap and running water. During the demonstration process, the children actively participated by practicing each step that had been demonstrated. Facilitators provided immediate feedback to correct improper techniques, such as rubbing between the fingers during handwashing or ensuring that soap was evenly applied to all surfaces of the hands. Activity documentation showed a high level of participant enthusiasm, as reflected in their active involvement when asked to repeat the demonstration in front of their peers.

Figure 3. Demonstration of Proper Handwashing Techniques

After all educational materials and demonstrations were delivered, participants completed a post-test as a final evaluation to assess the extent of knowledge improvement following the intervention. The results showed a significant increase in the knowledge of the orphanage children after the health

Jurnal Multidisiplin Ilmu Kesehatan
ISSN : xxxx- xxxx
2026, Vol. 1, No. 1
98 - 112
Doi: 00000

education, with the mean score increasing from 84.1 in the pre-test to 96.8 in the post-test, with a p-value of 0.000, indicating that the educational intervention was effective in improving knowledge. These findings are consistent with the study by Abidin and Halapiry (2023), which reported that health education significantly improved the knowledge, attitudes, and skills of families of leprosy patients after an educational intervention. Similarly, Meliana (2014) found that health education increased community knowledge about leprosy because the information was delivered repeatedly and in an easily understandable manner. In addition, Rizqoh et al. (2024) reported that education on Clean and Healthy Living Behavior (PHBS) improved adolescents' understanding of skin disease prevention, supporting the results of this study in which the majority of orphanage children showed increased knowledge after the intervention. This finding is further supported by Simbolon et al. (2024), who reported that educational programs in a leprosy rehabilitation center improved residents' understanding and ability to prevent the disease. Therefore, the improvement in respondents' knowledge observed in this study is consistent with various studies demonstrating that health education is an effective method for increasing understanding and awareness of infectious diseases, including leprosy.

The implementation of the PHBS demonstration not only provided direct experience but also reinforced the educational material that had been previously delivered. This contributed to the improvement observed in the post-test results, where the number of respondents with a good level of knowledge increased compared to before the intervention. Hands-on practice was shown to help children better remember and understand how PHBS

Jurnal Multidisiplin Ilmu Kesehatan
ISSN : xxxx- xxxx

2026, Vol. 1, No. 1
98 - 112
Doi: 00000

contributes to the prevention of leprosy transmission, particularly through maintaining personal hygiene and environmental cleanliness.

CONCLUSION

The results of this study indicate that health education played an important role in improving the knowledge level of children at Al-Hidayah Batu Ringgit Orphanage regarding leprosy. The mean knowledge score increased from 84.1 in the pre-test to 96.8 in the post-test, and the Wilcoxon test result showed a *p*-value of 0.000, indicating a significant difference after the intervention. The education on the implementation of Clean and Healthy Living Behavior (PHBS) is expected to enhance respondents' understanding of personal hygiene practices, proper handwashing, and environmental sanitation as preventive measures against leprosy transmission. These findings confirm that structured and repeated health education can serve as an effective strategy to support leprosy prevention efforts in orphanage settings.

4. REFERENCE

Abdillah, U. R., & Azam, M. (2016). Pendidikan kesehatan sebagai upaya peningkatan pengetahuan, sikap, dan praktik deteksi dini kusta. Journal of Health Education, 1(2), 104–112. http://journal.unnes.ac.id/sju/index.php/jhealthedu

Abidin, M., & Halapiry, F. (2023). Penyuluhan kesehatan dan perubahan perilaku masyarakat dalam pencegahan penyakit menular. Jurnal Promosi Kesehatan Indonesia, 18(2), 112–120.

Ariningsih, I. A. K. (2023). Modifikasi cara pengambilan sampel hapusan sayatan kulit yang aman bagi petugas laboratorium. Indonesian Journal of Laboratory, Edisi Khusus 2023, 129-134.

Jurnal Multidisiplin Ilmu Kesehatan
ISSN : xxxx- xxxx

2026, Vol. 1, No. 1
98 - 112
Doi: 00000

Dinas Kesehatan Provinsi NTB. (2024). Profil Kesehatan Provinsi Nusa Tenggara Barat Tahun 2024. Accses: https://dinkes.ntbprov.go.id/profil-kesehatan/

Kemenkes RI. 2013. Riset Kesehatan Dasar. Jakarta: Badan Penelitian dan Pengembangan Kesehatan Kementerian Kesehatan Republik Indonesia

Meliana. (2014). Hubungan tingkat pengetahuan dengan perilaku pencarian pengobatan kusta pada penderita kusta di Kota Makassar. Jurnal Kesehatan Masyarakat, 6(1), 45–52.

Mindasari, R., Markolinda, Y., & Djafri, D. (2025). Keterkaitan Faktor Risiko dengan Kejadian Kusta di Indonesia: A Systematic Review. JIK (Jurnal Ilmu Kesehatan), 9(1), 80-89

Nur, A., Amalia, N., Badau, M. J., & Selluk, A. T. (2020). Penyuluhan penyakit kusta dengan tingkat pengetahuan keluarga penderita kusta di wilayah kerja Puskesmas Banggae II Kabupaten Majene. Jurnal Penelitian Kesehatan Suara Forikes, 11(1), 1–7. https://doi.org/10.33846/sf11115

Prakosoewa, F. R. S., & Puspitasari, E. (2021). Penyuluhan pada Petugas Kusta tentang Pentingnya Faktor Peningkatan Pelayanan Kesehatan untuk Mencegah Terjadinya Infeksi Kusta di Daerah Endemis Kusta. Jurnal Pengabdian Masyarakat Medika, 1(2), 30–35

Rizqoh, E. N., Widayati, R., & Puspitasari, D. (2024). Efektivitas penyuluhan kesehatan terhadap peningkatan pengetahuan remaja tentang penyakit kulit menular. Jurnal Keperawatan dan Kesehatan, 15(1), 33–41.

Simbolon, O., Hutapea, L., & Nababan, R. (2024). Pengaruh pendidikan kesehatan terhadap peningkatan pengetahuan dan sikap dalam pencegahan penyakit kusta. Jurnal Ilmu Kesehatan Masyarakat, 12(1), 55–63.

Sirsantyani, T., & Cahyaniangisih, N. F. (2019). Analisis kejadian penyakit kulit pada pemulung di Tempat Pengolahan Sampah Terpadu (TPST) Kelurahan Sumur Batu Kecamatan Bantar Gebang Kota Bekasi. Jurnal Kedokteran dan Kesehatan, 10(2), 135–142. http://jurnal.umj.ac.id/index.php/jkdk

Jurnal Multidisiplin Ilmu Kesehatan
ISSN : xxxx- xxxx

2026, Vol. 1, No. 1
98 - 112
Doi: 00000

World Health Organization (WHO). 2015. Global Leprosy Update, 2014. Weekly Epidemiological Record; 62(16): 278-280.