

The Relationship between Community Knowledge and Attitudes towards Lepra Stigma in the Working Area of Malawei Public Health Center, Sorong City

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Abstract

Background: Lepra creates a significant stigma within society, leading to the social rejection of people with lepra, which often results in discrimination. According to the Ministry of Health of the Republic of Indonesia in 2022, West Papua is the province with the highest incidence of Lepra in Indonesia, with a rate of 9.89 per 10,000 population. **The aim** of this study is to investigate the relationship between community knowledge and attitudes with the stigma surrounding Lepra in the working area of Malawei Public Health Center, Sorong City. **Method:** This research is a quantitative study with a cross-sectional design. The statistical test used was the Chi-square test. The research instrument was a questionnaire. The study was conducted in the working area of Malawei Public Health Center in Sorong City, specifically in RT 3/RW 4. The population in this study consists of 90 residents from RT 3/RW 4, with a sample size of 74 respondents calculated using the Slovin formula. **Results:** The study found a significant relationship between knowledge and the stigma of Lepra with a p-value of $0.000 < (\alpha = 0.05)$. Additionally, there was a significant relationship between attitudes and the stigma of Lepra with a p-value of $0.000 < (\alpha = 0.05)$. **Conclusion:** There is a relationship between community knowledge and attitudes with the stigma surrounding Lepra in the working area of Malawei Public Health Center, Sorong City.

Keywords: Knowledge, Attitudes, Lepra Stigma, Sorong City

1. INTRODUCTION

Lepra is a disease that has existed for a long time and has been described in the literature of ancient civilizations. It is a chronic infectious disease caused by the bacterium *Mycobacterium leprae*. This disease affects the skin, peripheral nerves, mucous membranes in the upper respiratory tract, and eyes. Lepra can be cured, and early treatment can prevent disability. Apart from physical deformities, people with Lepra often face stigmatization and discrimination (WHO, 2023). Lepra, also known as Hansen's disease or Morbus Hansen, is caused by the bacterium *Mycobacterium leprae*. This bacterium divides slowly, with a replication time of 2-3 weeks. The bacterium can survive outside the human body for up to 9

days. Lepra has an incubation period of 2-5 years, and it can even take

longer than 5 years in some cases (Ministry of Health of the Republic of Indonesia, 2015).

Lepra still occurs in more than 120 countries, with around 200,000 new cases reported annually. The global elimination of Lepra as a public health problem (defined as a prevalence of less than 1 per 10,000 population) was achieved in 2000. The reduction in new cases has been gradual, both globally and in specific regions. In 2019, countries such as Brazil, India, and Indonesia reported more than 10,000 new cases (WHO, 2023). Indonesia ranks third globally in Lepra case detection after India, Brazil, Indonesia, the Congo, and Mozambique. The number of Lepra cases in Indonesia remains relatively high, with a prevalence rate of 0.55 per 10,000 population in 2022. This represents an increase from the previous year, which had a prevalence of 0.5 per 10,000 population. This corresponds to 15,052 registered Lepra cases in 2022, with 12,095 new cases found within the country last year. The regions that have not yet achieved Lepra elimination in Indonesia include East Java, West Java, Central Java, South Sulawesi, Papua, and West Papua (Ministry of Health of the Republic of Indonesia, 2018). West Papua has the highest prevalence of Lepra in Indonesia, at 9.89 per 10,000 population, followed by North Maluku with a prevalence of 5.32 per 10,000 population (Ministry of Health of the Republic of Indonesia, 2022).

Based on previous studies, the results showed a negative stigma towards Lepra patients (63.5%) due to the community's fear of contracting the disease, which stemmed from a lack of knowledge about its transmission process (Jufriзал, Nurhasanah, 2019). A person's level of knowledge is greatly influenced by their exposure to information. Information can be obtained from various sources, including social media, books, research, and even family or friends. A similar study conducted in Surabaya mentioned that exposure to information also influences the stigma the community has towards Lepra patients. In that study, it was noted that respondents who were exposed to more information about Lepra tended to have a more positive stigma towards Lepra patients (Ardianti E, 2019).

Initial data collection was carried out on May 8, 2023. Based on interviews with the person in charge of the Lepra clinic at the Malawei Public Health Center, it was found that there were 56 Lepra patients, with the highest number of cases occurring in the working area of the Malawei Health Center, specifically in RT 3 and RW 4 of Malawei Village. The population of RT 3 and RW 4 is 90 people. Based on brief interviews with the residents of RT 3 and RW 4 in the working area of the Malawei Health Center, it was revealed that people avoid those with Lepra because they consider the disease dangerous and highly contagious. Therefore, the researcher is interested in conducting a study on the stigma in the community

towards Lepra patients.

Based on the background description, it shows the stigma experienced by leprosy patients. The problem formulation in this study is: "Is there a relationship between community knowledge and attitudes with the stigma of leprosy in the working area of Malawei Public Health Center, Sorong City?"

2. METHOD

The type of research used in this study is quantitative, utilizing an analytical design with a cross-sectional approach. In this study, the researcher aims to examine the relationship between the independent variables, namely knowledge and attitude, and the dependent variable, which is the social stigma toward leprosy patients in the working area of the Malawei Health Center, Sorong City. The study population consists of the community members of RT 3 and RW 4 within the Malawei Health Center's jurisdiction in Sorong City, totaling 90 people. The sample size was determined using the Slovin formula, resulting in a sample (n) of 73.46, which was rounded to 74 respondents for this study. The study employs accidental sampling, where respondents are selected based on chance; anyone who happens to meet the researcher and meets the criteria can be included as a sample (Sugiyono, 2018).

Sample selection was based on inclusion criteria set by the researcher: respondents who reside in the working area of the Malawei Health Center, are willing to participate, can communicate effectively, are over 17 years old, and do not have leprosy. The research instrument used in this study is a questionnaire. Respondents are provided with pre-selected answers to choose from, marking the most suitable option with a checkmark. The questionnaire used has been validated in a previous study by Dedy Nur Hidayat in 2019. The questionnaire consists of three parts: Knowledge: This section contains nine questions, with responses scored as (1) if answered correctly and (0) if answered incorrectly. Attitude: This section uses a Likert scale to measure perceptions, attitudes, or opinions regarding leprosy stigma, containing 10 statements. The community's attitude toward leprosy stigma is measured with a Likert scale presented as a checklist. Stigma: The EMIC-CSS questionnaire is used here to assess stigma. An exploratory qualitative study in Cirebon District found a positive correlation between the EMIC-CSS and total SDS scores ($r = 0.41$). This questionnaire includes 15 questions, scored as (2) if respondents answer "Yes," (1) for "Maybe," and (0) for "No/Don't know."

The data collection procedures used in this study are as follows:

1. The researcher requested a permission letter from Stikes Papua Sorong to conduct research at the Malawei Health Center, Sorong City.
2. After receiving permission from the Bachelor of Nursing Program, Stikes Papua Sorong,
3. The researcher obtained research permission from Stikes Papua in April 2023, which was then submitted to the Malawei Health Center as the research site.
4. The researcher visited the Malawei Health Center to gather data on leprosy patients according to the inclusion criteria.
5. The researcher visited the respondents' homes, provided an explanation about the research to be conducted, and asked for their consent by signing a consent form if they were willing to participate.
6. The researcher obtained 75 respondents who met the inclusion and exclusion criteria.
7. Next, the researcher collected the completed observation forms and conducted temporary or final termination with the respondents.
8. The researcher processed and analyzed the data from the observations that had been collected.

3. RESULTS

The results regarding biographical data containing gender, age, occupation, and history of hypertension in respondents (Table 1).

Table 1. Frequency Distribution of Characteristics of Research Respondents (n=74)

Variable	Frequency	%
Age		
17-25	26	35,1
26-35	18	24,3
36-45	21	28,4
46-55	5	6,8
56-65	3	4,1
>65	1	1,4
Gender		
Man	33	44,6
Women	41	55,4
Last education		
Elementary	3	4,1
Junior high school	6	8,1
Senior high school	51	68,9
Diploma	8	10,8
Bachelor	6	8,1

Work

Government employees	7	9,5
Self-employed	8	10,8
Private employees	16	21,6
Students	8	10,8
Others	11	14,9

Unemployed	24	32,4
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knowledge

Good	19	25,7
Enough	29	39,2
Not enough	26	35,1

Attitude

Positive	28	37,8
Negative	46	62,2

Stigma

Low	34	45,9
High	40	54,1

Table 1. Above shows that the largest number of respondents aged 17-25 years was 26 people (35.1), the largest number of respondents were female with 41 people (55.4%), their last education was SMA/SMK which was the largest number of respondents. with a total of 51 people (68.9), many who do not work with a total of 24 people (32.4%), the frequency of knowledge found that respondents with sufficient knowledge were more with the number 29 (39.2%), the frequency of attitudes found that respondents Negative attitudes were more numerous with 46 (62.2%), Stigma Frequency found that there were more respondents with High Stigma with 40 respondents (54.1%).

Bivariate analysis**1. The relationship between knowledge and the stigma of leprosy**

Table 2. Relationship between Knowledge and Stigma of Leprosy in the Working Area of Malawei Community Health Center, Sorong City in 2023 (n=74)

No	Knowledge	Stigma				Total	
		Low		High		F	%
		F	%	F	%		
1	Good	18	94,7	1	5,3	19	100
2	Enough	11	37,9	18	62,1	29	100

3	Not enough	5	19,2	21	80,8	26	100
	Total	34	45,9	40	54,1	74	100
	$\alpha = 0,05$						$p = 0,000$

Table 2 shows that respondents who have a good level of knowledge with low stigma, namely 18 respondents (94.7%) tend to be more numerous than respondents who have a good level of knowledge with high stigma, namely 1 respondent (5.3%). Respondents who had a sufficient level of knowledge with high stigma were 18 respondents (62.1%) tended to be more numerous than respondents who had a sufficient level of knowledge with low stigma, namely 11 respondents (37.9%). Meanwhile, there were 21 respondents (80.8%) who had less level of knowledge with high stigma than respondents who had less level of knowledge with low stigma, namely, 5 respondents (19.2%) Based on the results of the chi-square test, it was obtained $p \text{ value} = 0.000 < \alpha = 0.05$, thus H_0 is rejected and H_a is accepted, so there is a relationship between public knowledge and the stigma of leprosy in the Malawei Community Health Center Working Area, Sorong City.

2. The relationship between attitudes and the stigma of leprosy

Table 3. Relationship between attitudes and leprosy stigma in the working area of the Malawei Community Health Center, Sorong City in 2023 (n=74)

No	Attitude	Stigma				Total	
		Low		High		F	%
		F	%	F	%		
1	Positive	22	78,6	6	21,4	28	100
2	Negative	12	26,1	34	73,9	46	100
	Total	34	45,9	40	54,1	74	100
	$\alpha = 0,05$						$p = 0,000$

Table 3 shows that respondents who have a positive attitude with low stigma, namely 22 respondents (78.6%), tend to be more numerous than respondents who have a positive attitude with high stigma, namely 6 respondents (21.4%), meanwhile, respondents who 34 respondents (73.9%) had negative attitudes with high stigma, which tended to be more than respondents who had negative attitudes with low stigma, namely 12 respondents (26.1%). Based on the results of the chi-square test, the value obtained is $p = 0.000 < \alpha = 0.05$, so H_0 is rejected and H_a is accepted, so there is a relationship between community attitudes and the stigma of leprosy in the Malawei Community Health Center Working Area, Sorong City.

4. DISCUSSION

1. Relationship Between Community Knowledge and Leprosy Stigma in the Working Area of Malawei Health Center, Sorong City, 2023

Based on the research findings, there is a significant relationship between community knowledge and leprosy stigma. This is indicated by the results of the chi-square statistical test, with a p-value of 0.000 ($p < \alpha = 0.05$), meaning there is a connection between community knowledge and the stigma of leprosy in the working area of Malawei Health Center, Sorong City, in 2023.

This study aligns with previous research conducted in Tarakan City, which showed a relationship between community knowledge and leprosy stigma. Additionally, other studies by Carbadi, Dewi Laelatul Badriah, Mamlukah, and Rossi Suparman also found a meaningful correlation between knowledge and leprosy stigma.

Efforts to prevent leprosy require understanding and awareness from the community. Knowledge results from sensory input through human senses—such as sight, hearing, smell, taste, and touch. Most knowledge is acquired through sight and hearing. Knowledge is also closely related to formal education, where individuals with higher levels of education are expected to have broader knowledge. The researcher assumes that misconceptions about leprosy transmission persist due to low knowledge levels. Among individuals with high stigma (80.8%) and those with only high school education (68.9%), stigma was prominent. People in the region may look down on those with leprosy, believing they should be isolated. A lack of information contributes to this stigmatization. Community stigma is influenced by several factors, including knowledge of the disease and the treatment provided to those affected by leprosy. Equally important is providing information through health education.

Knowledge is a factor that influences behavioral change. Individuals with leprosy often face rejection and are isolated by their communities or even their families. Leprosy stigma in society frequently occurs due to low knowledge levels, leading to limited information about leprosy.

2. Relationship Between Community Attitudes and Leprosy Stigma in the Working Area of Malawei Health Center, Sorong City, 2023

The research also found a significant relationship between community attitudes and leprosy stigma. This is evidenced by the chi-square statistical test, showing a p-value of 0.000 ($p < \alpha = 0.05$), indicating a relationship between community attitudes and leprosy

stigma in the working area of Malawei Health Center, Sorong City, in 2023. This study supports previous research, which found a significant relationship between community attitudes and leprosy stigma.

The researcher assumes that many individuals hold negative attitudes and high levels of stigma, at 73.9%. Community beliefs often associate deformities in leprosy patients with danger, leading to a lack of respect and social exclusion for those suspected of having leprosy. Such attitudes contribute to leprosy patients feeling shame and rejection from their surroundings.

According to previous theories, stigma refers to an attitude, which is an individual's internal reaction to a stimulus or object. Although not directly visible, attitudes are inferred from observed behaviors. In daily life, attitudes reflect emotional responses to social stimuli. When individuals have a positive attitude toward a stimulus, they are more likely to accept and adhere to societal norms. Conversely, those with negative attitudes tend to reject societal norms.

5. CONCLUSION

Based on the research findings on the stigma of leprosy, there is a relationship between community knowledge and the stigma of leprosy in the working area of the Malawei Health Center in Sorong City. Additionally, there is a relationship between community attitudes and the stigma of leprosy in the same area.

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