

The Influence Of Perceived Benefits And Commitment On Selfcare Agency Of People With Leprosy In Preventing The Transmission Of Leprosy In Sumenep, Madura, Indonesia

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DOI: 10.47750/pnr.2022.13.S09.151

Abstract

Background : Leprosy is an infectious disease, chronic, caused by germs (*Mycobacterium leprae*) that attack the skin, peripheral nerves, and body tissues. Belief or understanding about the benefits/benefits of actions taken in reducing the risk and seriousness of health problems can encourage commitment to something. Commitment is an intention to perform certain health behaviors. This study aims to determine the effect of perceived benefits and commitment to the self care agency of leprosy patients in preventing leprosy transmission in Sumenep Regency, Madura, Indonesia.

Methods: The research design used a cross-sectional technique. Conducted in September 2021 in Sumenep Regency, Madura Indonesia. The population of this study were all leprosy patients in Sumenep Regency as many as 232 people. The research sample obtained 145 people with proportional random sampling technique. Analysis of the influence between variables using the Structural Equation Modeling (SEM) SmartPLS test.

Result: Perceived benefits have a direct effect on the self-care agency with a t-value of 4.900 ($t > 1.96$) and indirectly on the self-care agency through commitment with a t-value of 6.964 ($t > 1.96$). Commitment has a direct effect on self care agency with a t value of 8.402 ($t > 1.96$).

Conclusion: The benefits of prevention known by patients and commitment to healthy behavior can increase the patient's self care agency to prevent leprosy transmission

Keyword: Leprosy, Prevention benefits, Commitment, *Self care agency*

Introduction

In several countries, including Indonesia, leprosy has become a disease with a long history and has not been fully resolved until now. Leprosy is a problem that has not been resolved until now. Leprosy is an infectious disease, chronic, caused by germs (*Mycobacterium leprae*) that attack the skin, peripheral nerves, and body tissues. Leprosy or Hansen's disease is a mycobacterial disease whose manifestation, course, and prognosis are closely related to the patient's immune system (Cole & Singh, 2012)

In 2015, the prevalence of leprosy in the world was 210,758. The findings of new cases of leprosy in Indonesia were 15,910, placing Indonesia in the third position with the most cases of leprosy in the world in 2017 (Kemenkes RI, 2018). In 2017 the prevalence of leprosy in Indonesia was 0.70 cases/10,000 population and the discovery of new cases was 6.07 cases per 100,000 population. This prevalence covers several provinces in Indonesia including East Java (Kemenkes RI, 2018).

There are 3,373 people with leprosy in East Java. Sumenep Regency in 2020 is included in 9 (Nine) Regencies in

East Java whose prevalence is still above 1 per 10,000 population, with the second highest rank after Sampang (Sumenep District Health Office, 2020).

According to (Alfica Sehgal, 2006) the mechanism of transmission of leprosy is through direct contact from person to person or with respiratory secretions from an infected person. Infected patients do not take treatment, the nasal secretions of these patients contain a lot of bacteria and can be transmitted to other people through the air, skin wounds, and are very at risk of transmitting on prolonged contact with patients with an incubation period of 2-5 years (Amiruddin, 2012).

Research by (Romero-Montoya, Beltran-Alzate, & Cardona-Castro, 2017) that the source of leprosy transmission is household contact with sufferers. Knowledge of leprosy is conveyed to the community with an approach about the benefits of preventing leprosy transmission with healthy living behavior (Tosepu, Effendy, Imran, & Asfian, 2015). This is able to support the efforts of leprosy patients to increase their confidence in doing good self-care.

Perceived benefits are beliefs or understandings about the benefits/benefits of actions taken in reducing the risk and seriousness of health problems. These benefits can reduce the threat of disease or its consequences. Other benefits that are not related to health may be tangible such as financial savings and social welfare (Abraham & Sheeran, 2014). In addition to knowledge about the benefits of disease prevention, it requires a strong commitment to patients to carry out self-care in preventing leprosy transmission.

Commitment is a person's intention to behave, especially health behavior, identification of strategies for someone to behave well in health. This encourages the patient's confidence in taking care of himself.

Self-care agency is the acquired ability to recognize and meet ongoing needs in regulating human functioning and development (Allgood, 2014). Self care agency can be influenced by age, development, sociocultural, health and others.

According to (Dreher, Hughes, Handley, & Tavakoli, 2019), there are 3 (three) components of self care agency, namely foundational capabilities, power components, and capabilities to perform self care operations

Objective

The purpose of this study was to determine the effect of perceived benefits and commitment to the self care agency of leprosy patients in preventing leprosy transmission in Sumenep Regency, Madura, Indonesia.

Method

Design

The design in this study used cross-sectional. The data collection of the independent variable and the dependent variable is carried out at the same time at one time (Nursalam, 2020). This research was conducted in Sumenep Regency in September 2021.

Population and Sample

The population in this study were 232 people with leprosy in Sumenep Regency. This study uses a proportional random sampling technique, which is how to take samples from 28 selected health centers as samples so that the number of samples meets the representative sample limit (Nursalam, 2020). The sample in this study were 145 people with leprosy.

Data collection

Collecting data using a questionnaire that has been tested for validity and reliability.

Measurement and Data Processing

Measurement of the questionnaire on the perceived benefits construct with indicators of compliance, interaction and use of clothing and toiletries were categorized as high, medium, and low. The commitment construct of patients was categorized as high, medium, and low. The self care agency construct of patients with indicators of foundational capabilities, power component is categorized as high, medium, and low. Meanwhile, capabilities to perform self care operations are categorized as capable, moderately capable, and less capable. Data analysis using Structural Equation Modeling (SEM) SmartPLS.

Ethical Aspect

This research has been approved by the Health Research Ethics Committee of the Faculty of Dentistry, Airlangga University with certificate number: 379/HRECC.FODM/VII/2021.

Result and Discussion

Demographics

Almost half of the respondents studied did not graduate from elementary school (39.3%) with most of them aged 15 – 59 years (73.1%). The sexes are mostly male (55.9%) and most of the sufferers work (73.1%). In the economy almost entirely (91.7%) <UMR.

Table 1. Distribution of Perceived Benefits for Leprosy Patients in Sumenep Regency in 2021

Indicator	Category						Total	
	High		Middle		Low		Σ	(%)
	F	(%)	F	(%)	F	(%)		
<i>Obedience</i>	61	42.1	67	46.2	17	11.7	145	100
<i>Interaccion</i>	22	15.2	80	55.2	43	29.7	145	100
<i>Use of Clothes & Toiletries</i>	33	22.8	68	46.9	44	30.3	145	100

Table 1. shows that the perceived benefits with compliance indicators are almost half (46.2%) moderate, interaction indicators are mostly (55.2%) moderate, indicators of the use of clothing and toiletries are almost half (46.9%) moderate.

Table 2. Distribution of Commitments of Leprosy Patients in Sumenep Regency in 2021

No	Category	Frequency	Percentage (%)
1	High	36	24.8
2	Middle	77	53.1
3	Low	32	22.1
	Total	145	100

Table 2 shows that most of the commitments (53.1%) are in the medium category. Most of the self care agencies with foundational capabilities (60.0%) are in the high category. Most of the power components (64.8%) are in the high category. The indicators of capabilities to perform self care operations are almost half (41.4%) in the high category (table 3).

Table 3. Distribution of Self Care Agency for Leprosy Patients in Sumenep Regency in 2021

No	Indicator	Category						Total	
		High		Middle		Low		Σ	(%)
		F	(%)	F	(%)	F	(%)		
1	<i>Foundational Capabilities</i>	87	60.0	43	29.7	15	10.3	145	100
2	<i>Power Components</i>	94	40.0	39	26.9	12	8.3	145	100
3	<i>Capabilities To Perform Self Care Operations</i>	Capable		Moderately Capable		Not Capable		145	100
		60	41.4	58	40.0	27	18.6		

This study uses SEM analysis to determine the effect of family support and cognition on the commitment of sufferers in Sumenep Regency, Madura Indonesia.

Based on the results of the convergent test output the validity of all factor loading values above 0.5 (Figure 1). The results of the Average Variance Extracted (AVE) test obtained that all constructs were rated > 0.5 indicating the indicator was able to explain the factors and the reliability test of all constructs obtained a composite reliability value > 0.6 which means the construct described is reliable (Table 4).

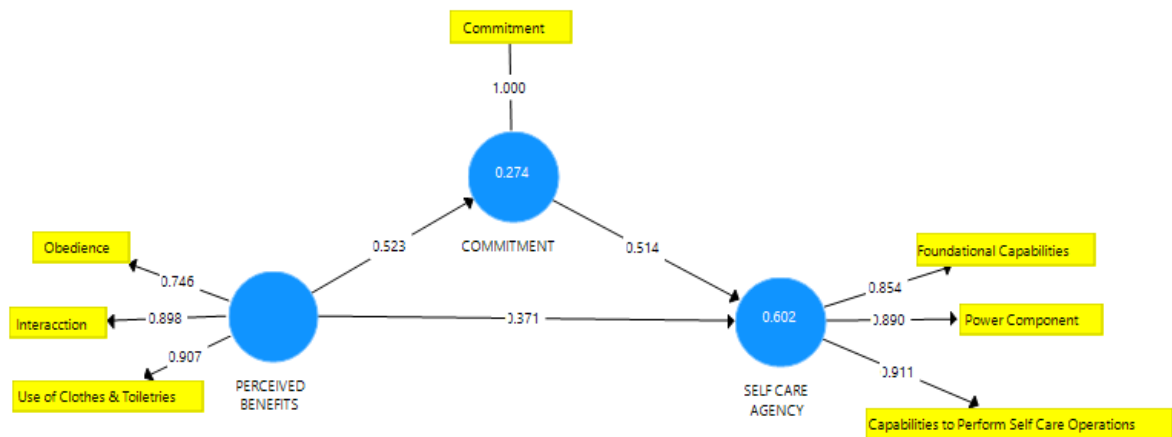


Figure 1. Analysis of factor loading model fit

Table 4. Average Varians Extracted (AVE) and Composite Reliability

	Composite Reliability	AVE
COMMITMENT	1,000	1,000
PERCEIVED BENEFITS	0,889	0,729
SELF CARE AGENCY	0,916	0,783

Based on the results of Figure 2 explains that the perceived benefits of self care agency with a t-value of 4.900 ($t > 1.96$) and on commitment with a t-value of 6.964 ($t > 1.96$), so it can be interpreted that perceived benefits have a direct effect on patient's self care agency and indirectly to the self care agency through commitment. Commitment to self care agency t-value 8.402 ($t > 1.96$) can be interpreted that commitment has a direct effect on self care agency.

Discussion

The patient's cognition has indicators of perceived benefits, perceived barriers, and self-efficacy. Perceived benefits have a significant effect on commitment. This shows that cognition of commitment has a positive influence in preventing leprosy transmission.

Public knowledge about leprosy is still low, so that it can lead to high stigma and discrimination for people with leprosy by staying away/maintaining a distance (Van't Notableordende et al., 2022). In addition to public knowledge about leprosy is important, knowledge of leprosy in patients is also needed to provide an understanding of patients in preventing the transmission of leprosy.

The importance of health education to the community can increase knowledge and reduce misunderstandings, thereby positively influencing perceptions about leprosy. This is in accordance with the research of (Goodarzi-Khoigani et al., 2018) revealed that health education is able to increase a person's commitment to perform health behaviors. Changes in healthy behavior require a commitment (Commitment to a plan of action) based on cognition (Pender, 2011).

Commitment has a positive effect on self care agency. This shows that the commitment to self care agency has an influence in preventing leprosy transmission.

According to Pender (2011) Health Promotion Model, namely personal, interpersonal factors, can affect cognition, and also with a good patient commitment will increase the behavior of preventing leprosy transmission in contacts. Commitment will encourage individuals to carry out health behaviors even though there are obstacles encountered (Goodarzi-Khoigani et al., 2018).

Commitment is an intention to perform good healthy behavior. High commitment/determination towards self care for leprosy patients will motivate patients in prevention so as not to infect their contacts. Perceived benefits can increase individual commitment to health behavior (Pender, N. J., 2011).

Commitment to plan of action consists of 2 processes, namely (1) commitment to take an action alone or with others at a time and place for self-control; and (2) a structured strategy for initiating, implementing, and encouraging behavior

Patients who have good cognition and are committed/determined to do something can increase their motivation/self-confidence in doing self-care. Patients can do self-care in the group of people with leprosy because there are benefits that include preventing transmission, limiting disease, restoring/improving health, treatment, and reducing contact in groups of people who are most likely to be infected. This is in accordance with research by (Deepak, Hansine, & Braccini, 2013) that self care groups can be useful in self-care.

Conclusion

Perceived benefits have a significant effect on commitment and self-care agency. Commitment has a positive effect on self care agency. This shows that cognition of commitment has a positive influence in preventing leprosy transmission. Perceived benefits can increase commitment to healthy behavior and can increase the patient's self-care agency to prevent leprosy transmission.

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