



Factors Related to Patient Satisfaction at Lung Health Services in West Kalimantan Province

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ABSTRACT

Quality health services are often associated with health services that satisfy patients. The satisfaction of treatment services that meet the expectations makes patients feel satisfied so that they will take medication according to the provisions. This study aims to determine the factors associated with patient satisfaction in Lung Health Services.: The type of research used is descriptive

quantitative research using a cross-sectional design. The population is the number of patients in one year. In retrieving data, the researcher uses a questionnaire on a sample of 100 TB patients.: The results shows that the related variables are education ($p = 0.004$) and patient status variables ($p = 0.000$), while the employment variable is not related to patient satisfaction in treatment services ($p = 0.691$). In the multivariate analysis, the most dominant factor variable related to patient satisfaction is patient status ($OR = 6,022$; $95\% CI = 2,072-17,500$; $p = 0,001$).

The educational factor variable is ($OR = 3,850$, $95\% CI = 1,394-10,663$; $p = 0,009$):. It can be concluded that patient status variables and education variables are factors related to patient satisfaction in treatment services.

Keywords: *Tuberculosis, treatment services, patient satisfaction*

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Introduction

Patient satisfaction is an important measure of the effectiveness of health care providers in fulfilling the needs and expectations of patients, so that patient satisfaction can help in providing an overview of the quality of health services and the desire of patients to obtain health services in the same place (Philip & Gary, 2012) . In addition, patients who feel satisfied will obey the treatment and want to come back for treatment to get a cure (Pohan, 2007). One of those who often get treatment is pulmonary TB (tuberculosis) patients because of the long and gradual treatment. According to the WHO report (Ministry of Health 2017), globally Southeast Asia and the Western Pacific are the regions with the largest number of new TB cases, 58% of the total 9.6 million new TB cases with 33% of them being women. India, Indonesia, and China are the countries with the most cases in the world. The number of new TB cases in Indonesia is 10% of the total number of TB cases (Kemenkes RI Dirjend Pencegahan P dan PP, 2017). Based on profile data of the West Kalimantan Provincial Health Office in 2017 and the report on the Prevention and Control of Communicable Diseases, there were 3,463 new cases of pulmonary TB. Most sufferers are from Pontianak with a total of 807 cases including (15.3%) new cases. The new cure rate decreased from 80.1% in 2016, while for 2017 the cure rate reached 67.5% of the minimum target by 85% (Dinas Kesehatan Provinsi, Profil Dinas Kesehatan Provinsi Kalimantan Barat, 2017). Lung Health Service (*UPT.PKP*) of West Kalimantan Province is a basic lung health service center with a vision to become a reference place for lung disease in West Kalimantan Province. Treatment services are by implementing the DOTS strategy in the treatment of TB patients. As for the results of TB treatment, there are DO patients namely 7.6% (indicator <5%) and the number of failures are (6.7%). Every year there are 6.3% of patients who change treatment because they are dissatisfied with the services of officers and believe that there are other treatments that give faster recovery (Dinas Kesehatan Provinsi, Profil UPT, 2018). In addition, based on the data of the Index of Community Satisfaction, there is a reducing that indicates that patient satisfaction was diminishing with the services provided. According to Pohan, patients who were satisfied with the health services obtained would tend to obey and comply with the prescribed treatments. Patients who are loyal will return to service unit if they



need treatment again and can invite other people to use the same medical treatment facilities to get a cure. They will obey the treatment that has been agreed before. Hidayati (2014) in her research stated that supportive attitudes towards pulmonary TB treatment became important considering the length of treatment to be undertaken. Six months are not such a short time so that if the patient does not have good support, there can be a drop out / loss to follow-up from the treatment that is being undertaken (Hidayati, 2014). The determinants of a patient or consumer satisfaction are also influenced by the characteristics of the patient, which is the characteristic of a person who distinguishes one from another (Sangaji & Sopiah, 2013). According to Andersen's opinion in Behavioral Model of Families and Health Services, the behavior of sick people seeking treatment for health services are predisposing factors, enabling factors, and need factors. The results of the realization of healthy behavior can be assessed from changes in health status, by comparing before and after utilizing medical services, so that satisfaction is achieved if the treatment services are as expected (Andersen & Newman, 2005). Patient satisfaction with treatment services is a comparison between patient expectations before the service is received and reality after receiving service. If the patient's expectations are fulfilled, it means that the quality of the treatment is good so that it can provide a sense of satisfaction to the patient.

Based on the problems described above, this study aims to determine the factors associated with patient satisfaction in treatment services at Lung Health Services in West Kalimantan Province Indonesia

Research Methods

This type of research is a quantitative descriptive study using a cross-sectional approach. The design used in this study was cross-sectional. It is a study that studies the dynamics of correlation between risk factors and effects by means of approach, observation or data collection at the same time (point time approach). This means that subjects are only observed or measured at the same time in the study (Sugiono, 2017).

The population is a generalization area consisting of objects or subjects with certain characteristics determined to be studied. The population in this study was patients who were



treated at the Lung Health Service with the Solvin formula obtained a number of samples of 100 respondents. For sampling techniques, the researcher uses accidental sampling where samples are patients who are located or patients who were encountered while the study took place (Sugiono, 2017). Data processing includes univariate analysis that is performed on the results of research variables to determine the proportion of each variable in the form of distribution tables and the percentage of research data. Bivariate analysis is performed to determine the independent variables and dependent variables that may be related to statistical testing with Cqi-Square. The result is if the $p\text{-value} > 0.05$ then H_0 is accepted, which means that statistically there is no significant relationship between the independent variable and the dependent variable. Multivariate analysis (logistic regression) is used to find out the most dominant variables related to patient satisfaction (Nasir, 2017).

Results and Discussion

Customer satisfaction is the level of one's feelings after comparing the performance/results that he perceives compared to his expectations. In general, satisfaction can be interpreted as a comparison between services or results received and expectations, services or results received which is minimally the same as expectations or even exceed it (Fandi & Gregorius, 2011). Andersen in the Behavioral Model of Families with Health Services stated that the embodiment of healthy behavior can be assessed from changes in health status by comparing before and after utilizing treatment services so that satisfaction is achieved if the treatment services are as expected. Consumer perceptions and expectations become a measure of consumer satisfaction (A Zeithaml, Parasuraman, & Berry, 1990). Patient satisfaction is divided into two categories: dissatisfied and satisfied. Based on the results of identification and research that has been conducted on 100 patient respondents who were treated at the Lung Health Services in West Kalimantan Province, it can be seen that most respondents were dissatisfied with the services provided, namely 56 respondents or 56%. Meanwhile, 44 respondents or 44% expressed satisfaction.

Results



Table 1.

Frequency distribution of respondent characteristics of patient satisfaction factor

Variable	Category	N	%
Age	Young	36	36
	Adult	39	39
	Elderly	25	25
Gender/Sex	Male	67	67
	Female	33	33
Education	Basic	43	43
	Advanced	57	57
Working Status	Jobless	32	32
	Working	68	68
Patient Status	Non-referral	71	71
	Referral	29	29
Cost Perception	Low-cost	58	58
	High-cost	42	42
Knowledge	Good	79	79
	Less	21	21
Attitude	Supportive	51	51
	Non-supportive	49	49

Source: 2019 Primary Data

Table 1 shows that based on the age of the respondents, the majority are adults that are as much as (39%), the majority of respondents' sexes are male (67%), and based on education the majority is respondents with advanced education (57%). Frequency distribution according to the work of respondents who work is as much as (68%) and as much (32%) who do not work. The frequency distribution according to the patient's status is mostly non-referral patient, namely (71%) and as many as (29%) patients with referrals. Frequency distribution according to cost



perception, respondents who perceive that the cost is cheap as much (58%) and (42%) perceive that the cost is expensive. Frequency distribution according to knowledge, most of the respondent's has good knowledge that is as much as (79%) and the distribution of attitudes of respondents who support is 51% and 41% with a non-supportive attitude.

Table 2.

Results of bivariate analysis

No	Variable	P value	95% CI		Connection
			lower	upper	
1.	Gender	0,526	.567	3.030	Insignificant
2.	Education	0,005	1.417	7.715	Significant
3.	Working Status	0,691	.362	1.961	Insignificant
4.	Patient Status	0,000	2.606	18.803	Significant
5.	Cost Perception	0,832	.490	2.426	Insignificant
6.	Knowledge	0,172	.739	5.187	Insignificant
7.	Attitude	0,530	.352	1.713	Insignificant

Source: 2019 Primary Data

Table 2 shows that there is no significant relationship between sex factors ($p = 0.526$), work ($p = 0.691$), cost perception ($p = 0.832$) and knowledge ($p = 0.172$) with patient satisfaction in treatment services in Lung Health Services West Kalimantan Province. There is a significant relationship between educational factors with values ($p = .0005$) and patient status ($p = 0.000$) with patient satisfaction in treatment services in Lung Health Services.



Table 3.

Results of multivariate analysis with logistic regression

Variable	Satisfaction					
	B	S.E	Wald	Df	Sig	Exp(B)
Education	1.348	0,518	6.767	1	0.009	3.850
Patient Status	1.795	0,544	10.880	1	0,001	6.022
Knowledge	785	633	1.461	1	0,227	2.149
Constant	-7.012	1.662	10.006	1	0,000	0,001

Source: 2019 Primary Data

The independent variable that has a relationship with the dependent variable or not, but the value of the p-value < 0.25 can be analyzed to multivariate with logistic regression analysis to find out the effect together. Based on the table above shows that out of the three independent variables associated with the dependent variable, the patient status variable is the most influential variable on the patient satisfaction with a significant value of p-value 0.001 with the magnitude of influence of 6,022 times (Exp value (B)). This can be interpreted that patients with referrals are likely to be 6,022 times satisfied with treatment services for pulmonary tuberculosis compared to patients who are not referred to after being controlled by other variables.

Relationship between gender and satisfaction in treatment services

The results of the analysis of the relationship between sex and patient satisfaction on treatment services showed that out of 100 respondents 28 male respondents (41.8%) were satisfied and those who were dissatisfied were 39 respondents (58.2%), while in female sex who felt satisfied were 16 respondents (48.5%) and those who were dissatisfied were 17 respondents (51.5%). Based on the results of the chi-square test which aims to examine the relationship between sex and patient satisfaction at the Lung Health Service of West Kalimantan province with a significant level of 0.05, it obtained p-values of 0.526 which means that H_0 is accepted. This means that there is no significant relationship between the sex of the respondent and patient satisfaction in treatment services. Both men and women feel satisfaction with treatment services.



Men are more concerned with an appearance in general and more pay attention to factors, and motivation as encouragement and as a form of attention from officers. The closeness of the relationship with the officer gives satisfaction values so they want to comply with the rules of treatment. As for women, the service is more rapid with the hospitality given by the officers. The results of the study are not in line with Belete (2017) which found that gender has a significant relationship to patient satisfaction in TB treatment services in Ethiopia. Of the 406 satisfied respondents, 208 (51.2%) were male respondents. There was a significant relationship between satisfaction and gender levels ($p = 0.001$) (Getahun & Nkosi, 2017).

Relationship between work and satisfaction in treatment services

The results of the analysis of the relationship between work and patient satisfaction on treatment services showed that of the 100 respondents in the non-working occupation category, 15 respondents (46,9 %) were satisfied, and 17 respondents (53.1%) were dissatisfied. Meanwhile, 29 respondents (42.7%) who have a job were satisfied and 39 respondents (57.3%) were not satisfied. Based on the results of the chi-square test which aims to examine the relationship between work and patient satisfaction on treatment services with a significant level of 0.05, it is obtained a p-value of 0.691 which means that H_0 is accepted. This means that there is no significant relationship between the work of the respondent and patient satisfaction on treatment services. The results of interviews with nurses explained that there was no difference in providing services to patients by looking at the patients' job, although according to patients, nurses did not discriminate between services to patients. This is not in line with Lumenta's opinion that working groups tend to be more influenced by having many demands and criticizing the services they receive if they are not satisfying compared to groups of people who do not work. To undergo treatment takes a long time, so disrupting their activities can even reduce their income (Lumenta, 2009).



The relationship between education and patient satisfaction in treatment services

The results of the analysis of the relationship between education and patient satisfaction on treatment services showed that of the 100 respondents, 12 respondents (27.9%) from the basic education category were satisfied and those who were dissatisfied were 31 respondents (72.1%), while in advanced education category, 32 respondents (56.1%) felt satisfied and 25 respondents (43.9%) were dissatisfied. Based on the results of the chi-square test which aims to examine the relationship between education and patient satisfaction at the Lung Health Service in West Kalimantan province with a significant level of 0.05, it is obtained a p-value of 0.005 which means H_0 is rejected. It proves that there is a significant relationship between the education of respondents and patient satisfaction on treatment services. This is in line with Cindy's research (2018) which states that highly educated patients are better to understand health needs/treatment compared to patients with low education with a value ($p = 0.001$). The higher a person's education is, the more chance he/she gets information and knowledge. With the length of education taken through the school level, the respondent or patient will get information from various sources so that they have a wider knowledge. Satisfaction scores when patients are categorized by education level can be seen as below: patients who have received a four-year college degree/university degree provide a higher satisfaction score than patients who have received education to the basic level for each of the four questions given (Yim, Shumate, Barnett, & Leitman, 2018). Someone with higher education will find it easier to understand something that is felt not comfortable with their health so they need treatment services to overcome the problem. They are better able to understand the treatment that will be undertaken even though it takes a long time. By knowing earlier the symptoms of pulmonary tuberculosis, it can be treated immediately and prevent the occurrence of wider transmission.

Relationship between patient status and satisfaction in treatment services

The results of the analysis of the relationship between patient status and patient satisfaction on treatment services showed that out of 100 respondents in the referral status category, 22 respondents (75.9%) were satisfied, and those who were dissatisfied were 7 respondents (24.1%).



Meanwhile, for patients who were not a referral, 22 respondents (31%) felt satisfied and those who were not satisfied were 48 respondents (69%). Based on the results of the chi-square test which aims to examine the relationship between patient status and patient satisfaction with a significant level of 0.05, the p-value of 0.000 is obtained which means that H_0 is rejected. This means that there is a significant relationship between the patient's status of the respondent and patient satisfaction in treatment services. The results of this study are in line with Lilik's research (2018) which states that in principle, satisfaction is the level of one's feelings after comparing between performance or perceived results (received services) and what it is expected. Non-referral patients can afford to pay for their own medical services, so they expect good and quality services. Patients who are not referrals assume services without referrals will be served better than patients who use referrals, even though the services provided do not distinguish between referrals and not referrals (Darwati, 2018). Patients who are not referrals think a good service for them because they pay directly so they feel that they will be served better than patients who use referrals. Even though the services provided do not distinguish between referrals and not referrals because services must be in accordance with the standard operating procedures that have been set.

Relationship between cost perception and patient satisfaction in treatment services

The results of the analysis of the relationship between cost perceptions and satisfaction of the service showed that out of the 100 respondents in the low-cost perception category, 33 respondents (56.9%) felt dissatisfied and 25 respondents (43.1%) were satisfied. As for the high-costs perception category, 23 respondents (54.8%) were dissatisfied and 19 respondents (45.2%) felt satisfied. Based on the results of the chi-square test which aims to examine the relationship between perceived cost and patient satisfaction in pulmonary tuberculosis treatment at Lung Health Service in West Kalimantan province with a significant level of 0.05, it is obtained a p-value of 0.832 which means that H_0 is accepted. This means that there is no significant relationship between perceptions of respondents' costs and patient satisfaction. Patients who perceive low-cost and high-cost payments are served similarly in accordance with standard



operating procedures without being distinguished. This is not in line with Priatna's research which states that there is a relationship of cost perception with a value of $p = 0.032$. Low-cost perceptions will have more possibilities for treatment than high-cost perceptions (Jalimun, Widjanarko, & Peitojo, 2014). Cost is a sensitive matter. When a patient feels satisfied and comfortable in the service, the cost issues will not be burdensome. On the contrary, if the patient feels that the service provided is too long and uncomfortable, he must feel dissatisfied. When someone wants a health care facility that is needed, they no longer think about cost issues. The desire to get healing and trust of the service is more important than thinking about the costs incurred. Moreover, according to them, the costs incurred are considered to be appropriate and affordable with the services obtained.

Relationship between knowledge and patient satisfaction in treatment services

The results of the analysis of the relationship between the knowledge of respondents and patient satisfaction on service showed that out of 100 respondents in the good knowledge category 32 respondents (40.5%) were satisfied and 47 respondents (59.5%) were dissatisfied. Meanwhile, for those who have a lack of knowledge, 12 respondents (57.1%) were satisfied and 9 respondents (42.9%) were dissatisfied. Based on the results of the chi-square test which aims to examine the relationship between knowledge and patient satisfaction in pulmonary tuberculosis treatment services at Lung Health Service in West Kalimantan province with a significant level of 0.05, it is obtained a p-value of 0.172 which means H_0 is accepted. This means that there is no significant relationship between the knowledge of respondents and patient satisfaction in treatment services. The results of this study are not in line with the research of Hidayati (2014) which states that knowledge influences patient satisfaction in pulmonary tuberculosis treatment services. According to Notoadmodjo, knowledge is the result of knowing and happening after people start to perceive something. With good knowledge, people will understand the explanation/motivation so that they understand and follow the treatment program properly. Insufficient knowledge causes some of them still perceive tuberculosis disease as a hereditary disease from the ancestors and with the same eating equipment, they will get the same disease.



When they have to avoid certain foods because they are afraid of getting the same disease, they make their body lack of nutrient. Various kinds of foods that are packed and useful for health are avoided. This causes the body's resistance to decrease so that it is easy to affect the disease (Notoadmodjo, 2014). Knowledge can be measured or known from a person's ability to reveal things known from answers either directly or indirectly. With knowledge about tuberculosis, it will be useful for someone to comply with the treatment and prevent contaminating to others. According to Vinny (2014), lack of knowledge causes that some people still perceive tuberculosis as a hereditary disease from the ancestors and with the same eating equipment, they will get the same disease. When they have to avoid certain foods because they are afraid of getting the same disease, they make their body lack of nutrient (Viney, et al., 2014).

Relationship between attitude and patient satisfaction

Attitudes are expressions of individuals who describe a sense of agreeing or disagreeing with an object of decision. If someone agrees with something, he/she can express his/her support for a better one. By supporting treatment in accordance with the requirements, the patient will get success healing (Suryani, 2013), (Schiffman & Kanuk, 2007). Based on attitude characteristics, they are categorized into two, namely supportive attitudes and non-supportive attitudes. The results of the study show that there is not too much difference between respondents who support (51 respondents) and those who do not support (49 respondents). This study also found that most of the respondents as many as 56 respondents felt dissatisfied, and 44 respondents felt satisfied with the service they received. In this study, based on Chi-Square test results, it is obtained p-value $0.530 > 0.05$. These results prove that there is no significant relationship between the characteristics of attitudes and patient satisfaction. The result is not in line with Hidayati ($p = 0,000$) that attitude is very necessary to support the pulmonary tuberculosis treatment program at Lung Health Services. In the usual treatment, before the treatment period is over, the patients feel their condition has improved and there is a feeling of boredom taking medication so that they do not continue treatment. In this state, the attitude to completing the treatment program is needed for at least 6 months⁶. These characteristics have already existed in humans. That attitude will



shape a person's behavior either it is good or bad, happy or unhappy about the object at hand. However, attitude can change when someone gets good experiences from himself or other people who are interesting to him. Through the process of learning and experience or events around it, the attitude that initially did not agree will change when knowing it is good and useful. When someone knows that tuberculosis is contagious but can be cured with regular treatment, it can change the attitude that the disease is an ordinary cough that is nothing to worry about because there is a time to recover by itself.

Conclusion and Recommendation

Based on the results of research conducted on patient satisfaction, it can be concluded as follows:

1. Patient satisfaction in health services for pulmonary tuberculosis at Lung Health Service in West Kalimantan Province in 2018, 56% of patients felt dissatisfied.
2. Description of the characteristics of the respondents, most of them are adults, male sex, having advanced education, having a job, having income less than Rp. 2,100,000.00, patient status is not a reference, having low-cost perception, having good knowledge and having supportive attitude.
3. From the results of the bivariate analysis, the variables related to patient satisfaction on treatment services were found in the variables of education, patient status, and duration of treatment. Whereas the variables that are not related are, age, gender, occupation, income, treatment experience, perceived costs, knowledge, and attitudes.
4. Based on the results of multivariate analysis with the logistic regression method, the patient status variable is the most related variable to patient satisfaction in treatment services at Lung Health Services in West Kalimantan Province.

Health workers improve services by providing an understanding of the same service standards for all patients and always observe, direct and listen to patient complaints. The Regional Government can pay attention to the physical condition of the Lung Health Service's building so that it becomes an adequate health service place so that patients who are treated feel satisfied and feel comfortable in their treatment.



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