Patient Satisfaction Improvement by Comprehensive Holistic Services at Public Health Centre X Surabaya

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Abstract

Comprehensive holistic health services are a form of improving the quality of health services by measuring IKM. The result of a survey by BPJS Kesehatan is that the IKM has not reached targeted satisfaction in 2016 and 2017. Public Health Center X has an index value that exceeds the existing IKM target, but the index value is lower than the index value in 2016. This study will analyze the decrease in the satisfaction index of BPJS participants towards First-Level Healthcare Facilities (FKTP). Then the low satisfaction index of BPJS participants getting their treatments in Public Health Center X. The study aims to understand the relationship between comprehensive holistic service and the satisfaction of outpatients at Public Health Center X. The research was an analytical observational study with a cross-sectional design. The samples obtained in this study were 242 respondents. The data were next processed using the PLS-SEM application. The results show that comprehensive holistic services affect satisfaction (t=7.983). The holistic service affects loyalty (t=6.112). The customer value affects satisfaction (t=2.155) and loyalty (t=3.527). Satisfaction affects loyalty (t=4.488). This research concludes that comprehensive holistic service and customer value affect satisfaction and loyalty. In addition, satisfaction has a direct effect on loyalty.

Introduction

Health is a human right and one of the elements of welfare that must be realized according to the ideals of the Indonesian people. Health services in Indonesia are regulated by the national health insurance system, which also pays attention to the quality and guarantee of health financing. Minister of Health Regulation No. 28 of 2014 concerning the National Social Security System (SJSN) states that every citizen is required to have a National Health Insurance (JKN), which seeks to ensure the quality and financing of public health are guaranteed. The implementation is carried out by the Social Security Administration (BPJS) (BPJS Kesehatan, 2020). The public health insurance program implementation is a public health center or primary health service. It aims to achieve the ideals of fully healthy Indonesian people through health services carried out holistically and comprehensively (promotive, preventive, curative, and rehabilitative) including biological, psychological, and social aspects (Kumar, 2017; Setyawan, 2019).

Holistic and comprehensive health services are a form of effort to improve the quality of health services (Setyawan, 2019). One quality measurement is community satisfaction, as measured by the Community Satisfaction Index (IKM). The satisfaction assessment is carried out both qualitatively and quantitatively based on a comparison of expectations and the reality of the services obtained (LaVela and Gallan, 2014). According to BPJS Kesehatan (2020), based on the results of a survey conducted by SWA, it showed that in 2019 the BPJS Health Health Facility Satisfaction Index was 79.1%. Meanwhile, in 2016 the index only
reached 76.2%, 75.7% in 2017, and 75.8% in 2018. This significant increase occurred by as much as 3.3% compared to the previous year.

Meanwhile, according to the results of a survey conducted by BPJS Health itself, it is known that the BPJS Health Participant Satisfaction Index in 2019 showed 80.1%. It indicates an upward trend. In 2016 the index was only around 78.6%, 79.5% in 2017, and 79.7% in 2018 (BPJS Kesehatan, 2020). The Community Satisfaction Index (IKM) is data and information that becomes a benchmark in assessing the suitability of services by established standards (Kania, 2019). Evaluation of satisfaction both qualitatively and quantitatively is done based on public opinion. In measuring community satisfaction, the public service providers provide support by comparing expectations and reality in the services obtained (Kania, 2019).

Based on data from the Directorate General of Health Services from the Indonesian Ministry of Health (2019), the satisfaction index for BPJS participants in East Java is the lowest at 79.9%. This figure is lower than South Sumatra, Bangka Belitung, and Bengkulu, which have a satisfaction index of 82.8%, Papua-West Papua at 81.2%; Central Sumatra and Jambi at 81.1%, and Banten, West Kalimantan, and Lampung 81.0% (BPJS Kesehatan, 2020). The target value of the Community Satisfaction Index for puskesmas services in 2017 is 62.5. Public Health Center X has an index value of 69.7. It can be categorized as good because it has passed the target of the existing Community Satisfaction Index. However, this value decreased by 6.4 points from the index value reported in 2016, which had an index value of 76.1. So there is a gap (in expectations and reality). It is necessary to make continuous improvement efforts to increase community satisfaction (Pemerintah Kota Surabaya, 2017).

National Health Insurance is administered using a social insurance mechanism by the Health Insurance Administration Agency (BPJS) and is mandatory for the Indonesian population. The benefits received by JKN participants are independent of the number of contributions paid by participants and per their medical conditions and needs. The holistic health care system has a comprehensive service concept, so patients are treated as whole humans, not as objects (Pramanik, 2016). Comprehensive services are through the stages of promotion to rehabilitation. The promotion stage aims to introduce and persuade the public to have a healthy life. The prevention stage is to maintain a healthy life to stay healthy. The curative stage is to change the sick state to be healthy. The rehabilitative stage is to improve the health standards of the sick and incurable and reduces disability and death. All of the above are in an integrated manner in one comprehensive service unit (Kumar, 2017; Setyawan, 2019).

Based on the patient's point of view, satisfaction is the level of feeling that arises from the performance of health services he has received by comparing it with what is expected (Mesfin and Gintamo, 2019). Patient satisfaction is cumulative of all patient experiences while receiving services at health care centers. Patient satisfaction is influenced by service quality. So patient satisfaction will increase if the health services improve their quality (Akbulut, 2017).

In service quality, there are three dimensions: 1) Technical: everything that is material felt by customers when receiving a product or service. This dimension can also be interpreted as hardware. 2) Functional: the skill and reliability of the provider of goods and services perceived by the customer. It can also be interpreted as human ware. 3) Image: this dimension looks at the quality of service based on the image built so far. Customers will judge services based on the image of a provider of goods or services formed so far (Firdous and Farooqi, 2019).

According to Ramez (2012), there are 3 (three) possibilities related to customer satisfaction. Customer satisfaction can be explained as follows: 1) Performance < Expectation: customers are not satisfied with what they have received. It happens when the performance of health services is worse than what the customer expects. Poor performance can occur because it is not following what the customer had expected before receiving health services. 2) Performance = Expectation: in this section, the customer feels that the service received is the same as what the customer had expected. Because the health services' performance is to
be seen as good as expected. 3) Performance > Expectation: customers feel the service received is better than expected. It can cause customers to feel very satisfied with the health services' performance.

Customer value is the overall benefit received by the customer in the form of goods (tangible) and services (intangible) compared to the costs incurred. Satisfaction is obtained from the size of the difference. Meanwhile, emotional benefits are from the intangible factors of the product or service (Kotler and Armstrong, 2013). Based on the above understanding, customer value relates to the benefits and sacrifices, of which the two are then compared. If the benefits obtained are higher than the sacrifices, the customer will take the offer, and vice versa (Kotler and Armstrong, 2013). Value is the customer's reason to choose a product from a provider of goods or services. In the healthcare sector, service providers need to ensure that the business is aligned with the healthcare value proposition and determine which other services can provide the highest value to customers (LaVela and Gallan, 2014).

According to Graf, A. and Maas (2018), there are four main aspects of customer value. Namely: 1) Emotional Value: value that comes from positive feelings or emotions from consuming a product, whether goods or services. 2) Quality/performance value: obtained from the customer's perception of the quality and expected performance of the product. 3) Social Value: obtained from the product's ability to enhance the customer's social self-concept. 4) Price/Value for Money: obtained from the reduction of short-term and long-term costs of the product. According to Kotler and Armstrong (2013), customer loyalty is a situation where customers consistently spend the entire existing budget to buy products or services from the same seller. Hasfar, Militina and Achmad (2020) stated that loyalty is a customer's commitment to persist deeply in repurchasing selected products/services consistently in the future, even though the influence of the situation and marketing efforts have the potential to cause behavioral changes (Hasfar, Militina and Achmad, 2020). According to research conducted by Wang, Y., Lo, H.P., Yang (2014), loyalty is measured by indicators of service repetition performed by customers and recommendations given by customers to people who need health services.

**Method**

The approach used in this research is analytic observational. The object is observed directly without providing intervention. The cross-sectional research design is a research design that measures and observes at a certain tempo simultaneously (Setia, 2016). This study examines several variables. They are comprehensive holistic services, customer value, satisfaction, and loyalty. The population in this study was 2,391 BPJS participants at Public Health Centre X in West Surabaya. The samples were BPJS participants at Public Health Centre X who met the inclusion criteria. Inclusion criteria in this study are 18-70 years old, can communicate well, and are willing to be respondents. After calculating with a significance of 80% and an error of 0.06, the number of samples obtained was 232 people. Data sources in this study were obtained from the Surabaya City Health Office and Public Health Centre X, while the primary data was obtained from distributing questionnaires directly to 242 respondents. Before filling out the questionnaire, prospective respondents received a PSP (Pre-Research Explanation) and signed informed consent. This research uses the descriptive analysis method and inferential analysis. The data was then processed through statistical tests using the SEM PLS (Structural Equation Modeling - Partial List Square) application. This research has passed the ethical test of the Health Research Ethics Commission, Faculty of Medicine, University of Ciputra Surabaya No. 085.A/EC/KEPK – FKUC/X/2020.

**Result and Discussion**

In this study, there were 242 respondents consisting of 46.3% males and 53.7% females. The age of respondents was distributed over 36.4% aged 18-24 years, 36.8% aged 25-40 years, 22.3% 41-55 years, and 4.5% aged 56-74 years. 52.9% of respondents had elementary/junior high school education, 39.3% had high school education, and 7.9% had a college education. Based on occupation, 25.6% were
unemployed, 51.2% were employees, and 23.1% were entrepreneurs. Based on the respondent’s assessment of the comprehensive holistic service received at Puskesmas X in Surabaya, 82.2% of respondents feel they are always cared for in the biological aspect. While 76.0% of respondents consider they are always cared for in the psychological one. While 78.9% of respondents feel they cared about the social aspect. Thus, respondents’ assessment of comprehensive holistic services at Puskesmas X in Surabaya is considered good.

According to Ali et al. (2018), to respond to the challenges of increasing health development, it is necessary to strengthen basic health services at the public health centre with comprehensive holistic service efforts carried out both in Community Health Efforts (UKM) and Individual Health Efforts (UKP). Public health service is considered the only health service unit that can perform holistic and comprehensive interventions in overcoming health problems or disorders (Ali et al., 2018). In this case, Public health service X has been able to answer the challenges. Respondents’ assessment of customer value at Public Health Service X based on emotional value, quality value, social value, and price-for-money can be described as follows: A total of 72.7% of respondents felt that the emotional value provided by Public Health Service X was good. The quality value aspect received a good assessment from 83.5% of respondents. Social value gets a good rating from 77.4% of respondents. The price-for-money also received a good assessment from 71.5% of respondents.

This study observed the patients who used BPJS to get services from the public health service. It causes no problems found in the price-for-money aspect. According to research by Razak, Nirwanto and Triatmanto (2016), primary and basic accredited health centers have an A rating (very good) on the price-for-money aspect (Razak, Nirwanto and Triatmanto, 2016). Another study states that price-for-money has a significant role in realizing maximum quality value (Razak, Nirwanto and Triatmanto, 2016).

Based on the respondent’s assessment regarding the human ware aspect, most are quite satisfied with the services of health workers at Public Health Center X, meaning that human ware at the public health center is still unable to provide services that can satisfy patients. The human ware aspect still has significant obstacles due to the presence of health workers who are less friendly in services and have not been able to mingle with the community. If we look at the respondents’ loyalty assessment, some feel they will be loyal to Public Health Center X. As many as 99.6% of respondents will reuse it, and 96.3% feel they will recommend Public Health Center X to others to get health services when needed. This figure shows a very good number for Public Health Center X.

Research conducted at the Public Health Center Susoh, Aceh Barat Daya District, showed that only about 51.2% of patients were loyal, while the rest were not (Maulinda, 2014). So the conclusion is that the patients of Puskesmas X in Surabaya have very good loyalty. The effect of comprehensive holistic services, customer
value, satisfaction, and loyalty of National Health Insurance participants on Public Health Center X in Surabaya is known through PLS-SEM analysis and the following figure:

**IMAGE 1. Initial Outer Model**

Figure 1 above shows 1 (one) invalid indicator of the latent variable, namely technical (-0.119). When it is removed, the next process is to do an SEM analysis with the PLS Algorithm again. So the final outer model is produced below.

**IMAGE 2. Final Outer Model**

Figure 2 shows all indicators are valid (>0.7). So we can continue the analysis of the structural (inner) model.

**IMAGE 3. Inner Model**
The bootstrapping process in the inner model aims to show the relationship between variables. The individual reflective measure is significant if the tcount is greater than the ttable value = 1.96 (research with two-way relationship, α=5%). Image 3 shows all the tcount value above the ttable value (1.96), so it can be concluded that Figure 3 is a structural model (inner model). The final model shows comprehensive holistic service (3 indicators) and customer value (3 indicators). Each affects satisfaction and loyalty. Satisfaction (2 indicators) affects loyalty (2 indicators). The evaluation results of the comprehensive holistic service model of Public Health Center X in Surabaya are presented in the table below:

### TABLE 1. Evaluation of Patient Satisfaction Model on Comprehensive Holistic Services at Public Health Center X Surabaya

<table>
<thead>
<tr>
<th>Variables</th>
<th>Cronbach’s Alpha</th>
<th>Composite Reliability</th>
<th>Average Variance Extracted (AVE)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Initial</td>
<td>Final</td>
<td>Initial</td>
</tr>
<tr>
<td>Comprehensive Holistic Service</td>
<td>0.870</td>
<td>0.870</td>
<td>0.920</td>
</tr>
<tr>
<td>Customer Value</td>
<td>0.841</td>
<td>0.841</td>
<td>0.893</td>
</tr>
<tr>
<td>Customer Satisfaction</td>
<td>0.526</td>
<td>0.794</td>
<td>0.664</td>
</tr>
<tr>
<td>Customer Loyalty</td>
<td>0.709</td>
<td>0.709</td>
<td>0.870</td>
</tr>
</tbody>
</table>

Source: Primary Data, 2020

The table above shows that at the initial value, the AVE (average variance extracted) is already above the value of 0.5; composite reliability has also passed the value of 0.7; Cronbach’s alpha value is above 0.6. Thus, each construct is valid as a constituent of the variables and between variables has a significant relationship.

### TABLE 2. Relationship between Variables in Patient Satisfaction Model on Comprehensive Holistic Services at Puskesmas X Surabaya

<table>
<thead>
<tr>
<th>No</th>
<th>Relationship between Variables</th>
<th>Coefficient (Original Sample)</th>
<th>T Statistic</th>
<th>p -Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Comprehensive Holistic Service -&gt; Satisfaction</td>
<td>0.562</td>
<td>8.157</td>
<td>0.000</td>
</tr>
<tr>
<td>2</td>
<td>Comprehensive Holistic Service -&gt; Loyalty</td>
<td>0.351</td>
<td>5.742</td>
<td>0.000</td>
</tr>
<tr>
<td>3</td>
<td>Comprehensive Holistic Service -&gt; Customer Value</td>
<td>0.394</td>
<td>5.682</td>
<td>0.000</td>
</tr>
<tr>
<td>4</td>
<td>Customer Value -&gt; Satisfaction</td>
<td>0.140</td>
<td>2.122</td>
<td>0.034</td>
</tr>
<tr>
<td>5</td>
<td>Customer Value -&gt; Loyalty</td>
<td>0.190</td>
<td>3.452</td>
<td>0.001</td>
</tr>
<tr>
<td>6</td>
<td>Customer Satisfaction -&gt; Customer Loyalty</td>
<td>0.286</td>
<td>4.565</td>
<td>0.000</td>
</tr>
</tbody>
</table>

Source: Primary Data, 2020

Table 2 shows that comprehensive holistic services have the highest effect on patient satisfaction at Puskesmas X, with a t count of 8.157. In addition, comprehensive holistic services will increase loyalty significantly, with a t count of more than 5.742.

### TABLE 3. Direct, Indirect, Total Effects on Patient Satisfaction Model on Comprehensive Holistic Services at Public Health Center X Surabaya

<table>
<thead>
<tr>
<th>No</th>
<th>Path</th>
<th>Effects</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Comprehensive Holistic Service -&gt; Satisfaction</td>
<td>Direct 8,157</td>
</tr>
<tr>
<td>2</td>
<td>Comprehensive Holistic Service -&gt; Loyalty</td>
<td>Direct 5,742</td>
</tr>
<tr>
<td>3</td>
<td>Comprehensive Holistic Service -&gt; Customer Value</td>
<td>Direct 5,682</td>
</tr>
<tr>
<td>4</td>
<td>Customer Value -&gt; Customer Satisfaction</td>
<td>Direct 2,122</td>
</tr>
<tr>
<td>5</td>
<td>Customer Value -&gt; Customer Loyalty</td>
<td>Direct 3,452</td>
</tr>
<tr>
<td>6</td>
<td>Customer Satisfaction -&gt; Customer Loyalty</td>
<td>Direct 4,565</td>
</tr>
</tbody>
</table>

Source: Primary Data, 2020

Table 3 shows the path model of patient satisfaction in comprehensive holistic services at Public Health Center X Surabaya. There are three paths that have an indirect effect with a value smaller than the value of the direct one. The direct effect of comprehensive holistic
services on customer satisfaction has a t-count value greater than the t-table (1.96), which is 8.157. The indirect one of comprehensive holistic services through customer value is only 1.795.

Previous research from Mediansyah and Effendi (2019) at the Puskesmas in Bandar Lampung stated that comprehensive holistic services performed for patients with gestational hypertension increased family knowledge above 50% and lifestyle changes in aspects of eating patterns with healthy menus, regular physical activity and stress management (Mediansyah and Effendi, 2019). H. L. Bloom mentions four factors that influence health status, namely: 1) lifestyle; 2) environment; 3) health services; and 4) genetic factors (Svalastog et al., 2017).

In the study by Al-Serhan and Jawazneh (2020) conducted at a hospital in Amman City, Jordan, an increase in health status led to an increase in patient satisfaction (Al-Serhan and Jawazneh, 2020). Furthermore Surydana (2017) mentions that service quality can increase customer value and proves that customer value significantly affects customer satisfaction. (0.543).

The effect of comprehensive holistic services on customer loyalty total t-count value is higher than the t-table (1.96), which is 5.742, while the indirect effects of comprehensive holistic services through customer value and satisfaction is only 5.004. According to Valizadeh and Jasemi (2017) holistic and comprehensive health services are a form of quality health services (Valizadeh and Jasemi, 2017). Research conducted by Arab et al (2012) in Iran Hospital stated that service quality positively affects patient loyalty. Patient experience in relation to hospital services significantly impacts outcome variables such as willingness to return to the same hospital and reuse its services or recommend them to others (Arab et al., 2012).

Research conducted by Fatemifar, Hosseini and Maymand (2016) at healthcare centers in Iran stated that patient satisfaction has a positive effect on patient loyalty. Other by Kessler and Mylod (2011) stated that patient satisfaction is important to determine the quality of hospital services and to increase patient loyalty to use hospital services again. (Kessler and Mylod, 2011). Research conducted by Herman (2014) shows a linear relationship between customer value and customer satisfaction with \( r = 0.596 \), significance (p <0.001). These results state that customer value has a relationship with customer satisfaction. This study also produces a scatter plot image that shows a strong linearity pattern between customer value and customer satisfaction.

The effect of comprehensive holistic services on customer value has a higher t-count value than the t-table (1.96), which is 5.682. This study is in line with research conducted by Surydana (2017) found a significant effect of service quality on customer value with a coefficient of 0.199. Service quality affects customer value for patients through products and services and is one of the vital processes in increasing customer value for patients (Lee, W.I., Chen, C.W., Chen, T.H., Chen, 2011).

Quality is determined by uncertain individual factors such as customer perceptions, expectations, and experiences (Khan, 2016). Service quality can be defined as the extent to which services meet customer needs or expectations. Service quality is the delivery of excellent or superior service relative to customer expectations (Lee, W.I., Chen, C.W., Chen, T.H., Chen, 2011). According to Abdelfattah, Rahman and Osman (2015) service quality from technical, functional and image has a significant influence on customer value with \( \beta = 0.64, \ S.E = 0.10, \ C.R = 6.23, \ p<0.01; \) for TQ: \( \beta=0.23; \ S.E=0.066; \ C.R = 3.49, \ p<0.01; \) for FI: \( \beta=0.39; \ S.E=.087; \ C.R = 4.52, \ p<0.01 \) (Abdelfattah, Rahman and Osman, 2015).

The influence of customer value on customer satisfaction has a higher t-count value than the t-table (1.96) which is 2.122. This study is per research conducted by Sugiati et al (2013), stating that customer value significantly affect customer satisfaction with a coefficient of 0.556 (Sugiati et al., 2013). Hasil signifikan yang sama terdapat pada hasil studi (Tu, Y.T, Li, M.L, and Chih, 2013), which show that customer value can influence customer satisfaction. Meanwhile, according to Kotler and Armstrong Kotler and Armstrong (2013), high customer value will satisfy customers because they feel the product consumed has higher benefits than the sacrifices that must be made (Kotler
and Armstrong, 2013). It shows that patient satisfaction can build relationships in the long term and can be interpreted that patient satisfaction will be higher if the perceived value and quality exceed the patient’s expectations (Lim, H.Y., Hwang, I.K., Suh, 2011; Sharmila, S., & Krishnan, 2013). The results of this study are in line with research conducted by (Cronin, J.J., Brady, M.K., Hult, 2011; Hur, Kim and Park, 2013; Lam, S.Y., Shankar, V., Erramilli, M.K., Murthy, 2014; Wang, Y., Lo, H.P., Yang, 2014).

The effect of customer value on customer loyalty has a total higher t-count value than the t-table (1.96), which is 3.452, while the indirect effects of comprehensive holistic services through customer value and satisfaction is only 1.858. In line with the results of this study, research conducted by Abdelfattah, Rahman, and Osman (2015) also mentions that there is a positive influence on customer value on customer loyalty with \( \beta = 0.94; \) S.E of 0.107; C.R = 8,796, p<0.01 (Abdelfattah, Rahman and Osman, 2015).

Health services from biological, psychological, and social aspects create value that plays a vital role in the process of meeting the patients holistic needs. Customer value is a marketing concept in increasing customer satisfaction. The value possessed by the customer will help the product to be better than competitors so that it can satisfy the customer. Customer satisfaction encourages customers to become loyal customers (Abdelfattah, Rahman, and Osman, 2015).

The relationship between customer satisfaction and customer loyalty has a higher t-count value than the t-table (1.96), which is 4.488. This image shows the influence given by customer satisfaction on customer loyalty. Patient satisfaction and loyalty have a strong and positive relationship, indicated by the result of 0.722, which is a strong category. The author concludes that the effect of patient satisfaction on patient loyalty is 52%. It means 52% of service quality variables can be affected by customer satisfaction. The remaining 48% is affected by other factors (Maulinda, 2014). Maulinda (2014) at the Susoh Health Center in Aceh Barat Daya found a significant relationship between patient satisfaction and loyalty with a p-Value of 0.004. Another study by Chiguvi and Guruwo (2015) stated that customer satisfaction is the variable with the highest influence on loyalty. So customer satisfaction is a vital factor in the realization of customer loyalty (Rahman, M. R., and Kutubi, 2013; Chiguvi & Guruwo, 2015).

**Conclusion**

This study concludes: 1) Comprehensive holistic services directly affect satisfaction. 2) The direct effect of holistic comprehensive service on loyalty is greater than the indirect effect. 3) Customer value has a direct effect on satisfaction. 4) Customer value directly affects customer loyalty. Satisfaction directly affects loyalty. Based on the results of the research, suggestions that can be given are that there is a need to refresh comprehensive holistic services consistently and continuously for health workers who serve at puskesmas.

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