Treatment Interest of Badan Penyelenggara Jaminan Sosial (Social Security Organizing Agency) Patients in Balowerti Public Health Center Kediri City

Sandu Siyoto1 & Albert Ronald Tule1

1 Sekolah Tinggi Ilmu Kesahatan Surya Mitra Husada, Jl. Manila, No. 37, Sumberece, Tosaren, Pesantren, Kediri, East Java 64133, Indonesia

Correspondence: Sandu Siyoto, Sekolah Tinggi Ilmu Kesehatan Surya Mitra Husada, Jl. Manila, No. 37, Sumberece, Tosaren, Pesantren, Kediri, East Java 64133, Indonesia. E-mail: dr.sandu.siyoto@gmail.com

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Abstract
The Social Security Organizing Agency (BPJS) which was established in 2014, implements the National Health Insurance Program (JKN). While JKN positively affects national health and increases the financial flow of private hospitals, there is a significant financial deficit, which can be covered by the involvement of informal private-sector workers, whose loyalty to the hospital is mainly influenced by hospital’s environment, communication with staff, and service quality. Previous studies indicate that in Indonesia loyalty to the public hospitals can have no relationships with service quality, to test this assumption, a sample of 126 subjects was recruited at the Balowerti City Health Center, Kediri City. All participants of the study received premium assistance beneficiaries (PBI) of BPJS insurance, which is fully subsidized by the government. Despite this, the main part of the sample evaluated their perception of the Balowerti City Health Center and the quality of its service as average or poor. Ordinal regression confirmed the existence of the influence of service quality and perception of the hospital on the behavioral intention of patients. Refers to perception of low service quality is the main reason for insufficient involvement if JKN. According to the previous studies, a lack of time for communication with the patient, long time of waiting, and a lack of information of BPJS are main reasons of patient dissatisfaction and low enrollment in JKN.

Keywords: service quality, treatment interest, perception, public hospitals

1. Introduction
1.1 National Health Insurance Program in Indonesia
Badan Penyelenggara Jaminan Sosial (BPJS) (The Social Security Organizing Agency) is an institution that provides financial assistance to vulnerable population categories (National Team for the Acceleration of Poverty Reduction, 2015). Since 2014, the government implements Jaminan Kesehatan Nasional (JKN) (the National Health Insurance Program) to provide all citizens of Indonesia with access to medical services (National Team for the Acceleration of Poverty Reduction, 2015). While the right to receive healthcare is stated in the Constitution of Indonesia, national insurance programs are among priorities of the World Health Organization (Sumail, 2018). Before introducing JKN, public health was promoted by four previous programs: Jamkesmas (Public Health Insurance), Jamkesda (Regional Health Insurance), Askes (Health Insurance for Civil Servants and the Military), and Jamsostek (Health Care Social Security Programme for Employees) (National Team for the Acceleration of Poverty Reduction, 2015). Although all social categories were covered, insurance providers offered different access to healthcare facilities that contradicts Indonesian law (National Team for the Acceleration of Poverty Reduction, 2015). A transfer of data from previous insurance systems, which was performed by the government, is time- and resource-consuming (National Team for the Acceleration of Poverty Reduction, 2015). In addition, JKN has low financial sustainability and requires more customers to reduce the current financial shortage.

1.2 Financial Issues of JKN
Since the claim ration of JKN is high, an annual deficit rising from year to year. In 2017, the yearly shortage constituted $480 million, with an average claim ration equal to 103% (Health Policy Plus, 2018). Among penerima bantuan iuran (PBI) (premium assistance beneficiaries) which are fully subsidized by the government, claims
ration reached 77% in 2017 (Health Policy Plus, 2018). According to Dartanto (2017), the fiscal cost for PBI subsidy will reach IDR36.42 trillion by 2020 and result in a total deficit of IDR25.87 trillion. Therefore, BPJS should either increase incoming costs or decrease its expenditures for fully subsidized categories.

Shortening of payments to the participants of the program has negative outcomes for the population and private sector. Although older adults are the main category of patients, the shortage in JKN funding cannot be caused by the treatment of a population with the higher mortality risk (Einav, Finkelstein, Mullainathan, & Obermeyer, 2018). In addition, implementation of PBI resulted in higher coverage of poor and near-poor social groups with healthcare services and contributed to the decrease in popularity of traditional treatment (Rolindrawan, 2015). A reduction of PBI costs will have a negative impact on the national health and private sector of medical care sue to properties of JKN. Unlike previous insurance programs, BPJS provides citizens with the opportunity to seek medical care in private hospitals, which are especially popular among inpatients and elderly (Rolindrawan, 2015). According to Dewi and Saputra (2018), a flow of financial funds of private hospitals in Surakarta significantly increased with the introduction of JKN. In contrast, investigations of the Health Policy Plus (2018) revealed that for better financial sustainability of JKN it is needed to increase the number of participants and increase contributions from the private sector. Thirty percent of the population, which remain uncovered by insurance program and belongs to the informal sector, are potential customers of JKN that prefer other medical services (Health Policy Plus, 2018). While it is essential to attract citizens to public hospitals, the research of Abera, Ncayiyana, and Levin (2018) distinguished a low quality of service as the main reason to choose other health care provider. Therefore, the attractiveness of the hospitals’ services becomes of utmost importance.

1.3 Patient satisfaction in the Healthcare Setting

Customer satisfaction is as important in the healthcare setting as in other spheres of business. While service quality influences customers’ satisfaction in touristic setting, delight results in the increase of loyalty (Ahrholdt, Gudergan, & Ringle, 2017; Vogus & McClelland, 2016). Satisfaction is also an essential factor for fast-food restaurants customers (Namin, 2017). Similarly, several researched identify determinants of client's intention to continue the use of the hospital’s facilities. According to George and Sahadevan (2019), patients’ loyalty is affected by service quality, which is defined by both technical and functional quality, the image of the company, perceived value, and perceived fairness of fees. Although all these factors have a direct influence on the intention to continue the use of the hospital’s services, patient satisfaction is an additional intermediate factor (George & Sahadevan, 2019). The strength of the influence of satisfaction on behavioral intentions was confirmed by Giovanis et al. (2018), who also identified medical care as the component of the quality perception. Environment and communication with hospital staff make a great contribution to the pleasure of patients.

Social interactions are the strongest determinants of patient’s satisfaction, which is a core factor of loyalty to the hospital. While there are many factors that influence patient’s satisfaction including characteristics of the patient and properties of health-care provides, interpersonal relationships between medical staff and with patients was the strongest factor (Batbaatar et al., 2017; Graham et al., 2015; Songthamwat et al., 2017). Qarari, Anwar, Basri, and Nuraeni (2018) revealed that understanding of patient's needs, schedule of patient visits, two-way communication, speed of response, and easiness of contact are basic factors of patient satisfaction in hospitals. However, interaction with doctor influences the quality of the service and the patient’s outcome (Tsai, Orav, & Jha, 2015; Sacks et al., 2015; Chen et al., 2018). According to Ferris et al. (2018), the partnership between patient and physician as well as inappropriate decision-making influence the outcomes of older adults with chronic conditions. However, the environment is of similar importance as staff communication for maintenance of the hospital’s attractiveness.

In addition to the properties of communication, setting impacts patient experience at the hospital. Hospitality, availability of equipment, and responsiveness to complain are directly related to the client's satisfaction (Qarari et al., 2018; Mohammed et al., 2016; Menendez et al., 2019). A welcoming atmosphere, pleasant interpersonal communication, and personnel training are related to customer’s satisfaction and sense of self-worth among customers (Leonard, 2017; Boissy et al., 2016). Hsu (2018) and Berkowitz (2016) revealed the importance of service value and service personnel for patient's comfort. According to Lukman et al. (2017), the hospital's environment seriously affects patient satisfaction and loyalty to the facility. Despite the significance of communication and surrounding in the hospital, the quality of care, and the competence of the personnel affect adherence to the hospital.

In addition to the environment and staff behavior, safety, and performance of medical staff define patients' behavioral intentions. Patient experience correlates with a number of complications during hospital stay (Stein et al., 2015; Ahmed et al., 2017). Importance of the service quality for maintenance of patients’ satisfaction and loyalty was supported by evidence from Indonesia as well as from other countries (Mahendrayana, Yasa, & Indiani,
According to Ladhari Souiden, and Dufour (2017), emotional satisfaction, which is defined by service quality and environment, has a substantial impact on the perception of the product and intention to use it. According to Shao, Taisch, and Mier (2017), employees working safety and customer health and safety are the main factors of sustainable consumption. Since patients perceive the difference in service quality (Swain, 2019), implementation of recent findings in cardiology (Yancy et al., 2018), urology (Sanda et al., 2018), and mental health (Kilbourne et al., 2018) can result in the increase in the hospital’s services consumption. In Taiwan, the introduction of innovations in hospitals is not affected by the governance structure (Yang et al., 2018). Instead, it is influenced by strategic decision-making and transparency of information (Yang et al., 2018). Although it is important to implement the best medical practices, market rivalry can change the preferred properties of healthcare facilities.

Although communication with staff remains important under circumstances of market contention, other properties of services become more compelling. In cases of intense competition with other health care facilities, tangibility and assurance become key factors of patients’ satisfaction (Annuar & Jaffery, 2018). In a context of health tourism, patients’ satisfaction is also defined by dining service and communication with staff (Erdem & Gundogdu, 2018; Wu, T. Li, & M. Y. Li, 2016). Similar findings of the importance of dining for surgery patients were obtained by Clement et al. (2015).

In turn, service value and satisfaction are key factors for spreading information about the hospital with world-of-mouth (Hsu, 2018). A study, which was conducted by Meesala and Paul (2018), indicates the importance of the reliability and responsiveness for patient’s satisfaction and loyalty to the hospital. While robots can perform service tasks like cleaning, there is a low probability of healthcare specialists’ jobs automatization (Frey & Osborne, 2017). Therefore, training of the medical staff is more viable in the long-term perspective due to the highly probable automatization of cleanliness maintenance.

1.4 Patient Satisfaction in Indonesia Public Healthcare Centers

While there are issues that influence the popularity of public health centers, evidence about the importance of service quality for loyalty to the healthcare facility should be investigated. Although JKN is not adapted for the investigation of patient satisfaction (Mahendradhata et al., 2017), there is some evidence about the experience, which is received at public hospitals. Brand image and service quality have the strongest influence on patient satisfaction at public hospitals in Bandung, Indonesia (Juhana, Manik, Febrinella, & Sidharta, 2015). In turn, Lestariningsih et al. (2018) did not find the direct association between service quality and loyalty to public hospitals in Indonesia. Therefore, the behavioral intentions of public hospital patients can be affected by other properties than service quality. To test this assumption, an H1 hypothesis of the study was formulated.

H1: Quality of service and perception of healthcare facility influences the interest in the treatment of PBI patients at Balowerti Health Center.

In addition to doubtful interaction of service quality with loyalty, there are arguments in support of patient compliant. Insufficient attention from medical staff (Handayani et al., 2015), a long waiting time (Mahendradhata et al., 2017) that results in patient dissatisfaction (Thai Thao Nguyen et al., 2018) as a poor service may result in patient dissatisfaction (Akhtar, Huda, & Dilshad, 2019), which results in low enrollment of informal workers. H2 can be used to test this assumption and investigate the level of satisfaction with public hospital treatment.

H2: Public hospitals; patients have a poor perception of the hospital and its services.

2. Method

2.1 Sample Size, Power, and Precision

Purposive sampling was used to recruit 126 participants, who were BPJS participants and Contribution Aid Recipients and who sought treatment at the Balowerti City Kediri Health Center. Men composed 62% of participants, 52% of whom were between 41 and 65 years old. Participants of the study are older comparing to the general population of Indonesia (Indonesia population, 2019). Therefore, conclusions from this sample can be applied only to middle-aged people and elderly that attends public hospitals in Indonesia.

2.2 Measures and Covariates

Respondents answered three questions that described their experience of using BPJS. The first question required to evaluate their perception of the Balowerti City Kediri Health Center with three available answers, which included "Poor," "Average," and "Good." Participants were asked to evaluate the quality of service and their interest in treatment with the same ordinal scale. Feedbacks were recorded on an observational sheet to together with age, gender, level of education, occupation, and usage of BPJS services.
2.3 Research Design

This is an observational study with a cross-sectional approach. Perception of the BPJS and subjective estimation that is independent variables of the quality of service was used to develop a model of interest in treatment, which is an effect variable. Since all variables of interest are represented in with ordinal scales, ordinal regression was used to create a predictive model of the interest in treatment.

3. Results

3.1 Demographical Characteristics of the Sample

Participants of the study were recruited during three months at Balowerti Puskesmas Kediri. Seventy-eight men accounted for 62% of the sample. Forty-three subjects (18%) were aged between 18 and 40 years old. A majority of participants (52%) were aged between 41 and 65 years of age. Remaining 30% of subjects were older than 65 years old. Despite this, only 19% of the sample have no education and are currently unemployed. Education and type of employment are presented in Table 1 and Table 2, respectively. Sixty-nine participants (55%) reported that they have never used BPJS, while the remaining part of the sample requested medical care with JKN at least once. While most of the participant is older than 40 years old, the results of the study cannot be extrapolated to the general population. Additional study of possible age differences in perception of BPJS services is needed.

Table 1. Education of the study participants

<table>
<thead>
<tr>
<th>Education</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Without school education</td>
<td>24</td>
<td>19</td>
</tr>
<tr>
<td>SD-SMP</td>
<td>39</td>
<td>31</td>
</tr>
<tr>
<td>High School</td>
<td>42</td>
<td>33</td>
</tr>
<tr>
<td>PT</td>
<td>21</td>
<td>17</td>
</tr>
</tbody>
</table>

Table 2. Employment type of participants

<table>
<thead>
<tr>
<th>Employment type</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unemployed</td>
<td>24</td>
<td>19</td>
</tr>
<tr>
<td>Farmers</td>
<td>39</td>
<td>31</td>
</tr>
<tr>
<td>Traders</td>
<td>42</td>
<td>33</td>
</tr>
<tr>
<td>Employee</td>
<td>21</td>
<td>17</td>
</tr>
</tbody>
</table>

3.2 Cross-Tabulation Analysis Result

Results of cross-tabulation revealed that 37.3% of subjects, who are aged between 41 and 65 years old, reported service quality to be average. Fifty-two respondents out of 126 reported that they have a low interest in treatment and perceive service quality as average. Participants reported reliability to the most important factor (Mean = 267), while empathy was the least meaningful for them (Mean = 206). Ratings for the perception of the hospital, quality of service, and interest in treatment are reported in Table 3.

Table 3. Perception of the Balowerti Public Health Center, quality of service, and patients’ interest in treatment

<table>
<thead>
<tr>
<th>Perception</th>
<th>N</th>
<th>%</th>
<th>Quality of service</th>
<th>N</th>
<th>%</th>
<th>Interest in treatment</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>“Poor”</td>
<td>28</td>
<td>22.2</td>
<td>29</td>
<td>23</td>
<td>37.3</td>
<td>78</td>
<td>61.9</td>
<td></td>
</tr>
<tr>
<td>“Average”</td>
<td>94</td>
<td>74.6</td>
<td>89</td>
<td>70.6</td>
<td>62.8</td>
<td>36</td>
<td>28.6</td>
<td></td>
</tr>
<tr>
<td>“Good”</td>
<td>4</td>
<td>3.2</td>
<td>8</td>
<td>6.3</td>
<td>6.3</td>
<td>12</td>
<td>9.5</td>
<td></td>
</tr>
</tbody>
</table>

Note. For interest in treatment, the listed rating was replaced with “Low,” “Average,” and “High.”
3.3 Ordinal Regression Results

Ordinal regression was applied to develop a model of the interest in treatment that is based on ordinal variables. Both perceptions of the hospital and quality of service are significant predictors of the interest in treatment. McFadden’s pseudo-R2 statistics was equal to 0.11, which is an excellent result for two dependent variables. Results of the ordinal regression are represented in Table 4.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Value</th>
<th>Std. Error</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perception</td>
<td>0.618</td>
<td>0.071</td>
<td>0.006</td>
</tr>
<tr>
<td>Quality of service</td>
<td>0.711</td>
<td>0.105</td>
<td>0.001</td>
</tr>
</tbody>
</table>

Note. Independent variables are Perception and Quality of service. The dependent variable is Interest in treatment.

4. Discussion

Since BPJS was established relatively recently, it requires further development of operational programs and introducing the most recent methods of treatment. Staff training and optimization of operations with a hospital information system are needed to increase the quality of medical care in Indonesian hospitals (Handayani et al., 2015.; Ismail & Abdullah, 2018). It was also revealed that for Indonesian patients, it is essential to be treated by experienced personnel with excellent skills and recent methods (Handayani et al., 2015). However, due to the lack of physicians (Mahendradhata et al., 2017). While public health centers in Kediri City are equipped in according to BPJS requirements, there is a lack of information about the system and insufficient exchange of material between facilities (Mahardika, 2016). These factors are assumed to be the main reason for patient dissatisfaction, which is the main obstacle for enrollment of a higher number of participants into JKN. While there the Balowerti Public Health Center is perceived as an average healthcare provider by PBI participants, it is important to promote sincere apology and empathy as the main method of restoration of relationships with clients in cases of service failure (Radu, Arli, Surachartkumtonkun, Weaven, & Wright, 2019; Menendez, Chen, Mudgal, Jupiter, & Ring, 2015). This will contribute to the more effective management of issues with communication and information processing, which are assumed to be the main contribution to the low popularity of public health centers.

5. Conclusion

Increase in the number of medical staff and is recommended to ensure that the physician can pay sufficient attention to each patient. Educational initiatives are also known to be related with higher patient satisfaction rates (Banka et al., 2015) Relationships between quality of service and behavioral intention, which were identified in previous studies, were confirmed as well as the importance of the hospital perception for loyalty to the medical facility. Since the majority of participants evaluated the quality of service as poor or average, this study supports the statement about the need to increase the quality of service in Indonesian public hospitals. PBI recipients, who participated in the research, have low interest in treatment despite the full subsidy from the government. It can be concluded that an increase in the number of medical staff, professional training, and better information exchange is needed to attract the informal sector to BPJS.

Recommendations

Limitations of these study include subjective evaluation of the service quality and perception of the hospital. Application of quantitative methods for identification of factors that influence patients’ decisions to receive treatment in Balowerti Public Health Center is a perspective topic for further studies. Latent Dirichlet allocation (Guo et al., 2017) and Fuzzy Service Quality methods (Darajatun, 2017) can be used for this purpose. The usage of SERVQUAL approach, which is widely used in a medical setting (Ali et al., 2018), will contribute to the better understanding of patient satisfaction factors and enable comparison with other studies. A comparison of public hospitals with private ones with the application of these methods will contribute to a better understanding of patients’ interest.

Competing Interests Statement

The authors declare that there are no competing or potential conflicts of interest.

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