
SERVICE QUALITY AND OUTPATIENT'S FACTORS AFFECTING THEIR SATISFACTION AT THE B HOSPITAL IN INDONESIA

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ABSTRACT

Background: The dissatisfaction of patients is the gap between the patient's expectation and service performance perceived by the patient at the time of service. A preliminary study shows that 7 (35%) out of 20 patients visiting the outpatient department of the B hospital were dissatisfied with the outpatient services of the B hospital. The objective of the present study is to find the effect of service quality and outpatient factors on their dissatisfaction at the B hospital. Material and method: The research design of the present study is analytic quantitative research with the design type of analytic cross-sectional study. Based on the analytic cross-sectional study, the sample size is 200 patients visiting the outpatient department of the B hospital subsequently. Data collection through a structured interview using a questionnaire containing close-ended questions. The researchers analyze univariate, bivariate, and multiple logistic regression. Result: Among 9 independent variables, 4 independent variables have a causal relationship with outpatient satisfaction at the B hospital:

Without payment to the hospital through health insurance, slow responsiveness, ungood tangible, and ungood empathy affect outpatient's dissatisfaction. Conclusion: The hospital management should enhance outpatient satisfaction by organizing the Team to discuss and improve slow responsiveness, ungood tangible hospital and health workers, and ungood empathy of physicians and nurses, and other health workers especially to the outpatients without payment to the hospital through health insurance at the B hospital. Based on the recommendation, suggestions are developed.

Key words: Outpatient satisfaction, health insurance payment, responsiveness, tangibles, empathy.

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1. INTRODUCTION

Hospital management aims to provide a high quality of health services affecting patient satisfaction. Patient satisfaction is the level of a patient's feeling appearing because of the performance of the health services he/she obtains compare to what he/she expects. Dissatisfaction is the gap between the patient's expectation and the patient's feelings on the performance of health services (Pohan, 2006). The number of outpatients who feel dissatisfied with the performance of health services among 100 outpatients is called the percentage of outpatient dissatisfaction. Outpatient Satisfaction Index (OSI) is 100% - the percentage of outpatient dissatisfaction.

Outpatient Satisfaction Index (OSI) was different in various hospitals. In Dr. Wahidin Soedirohoesodo Hospital, the survey result of outpatient satisfaction shows that the OSI was 83.6% (Soedirohoesodo, 2019). In Moewardi Hospital, the survey result of outpatient satisfaction shows that the OSI was 76.8% (Moewardi, 2019). In Sawah Lunto Hospital, the survey result of outpatient satisfaction shows that the OSI was 84.4% (Lunto, 2019). In Dumei Municipality Hospital, the survey result of outpatient satisfaction shows that the OSI was 70% (Dumei, 2019). In Pekanbaru Arifin Ahmad Hospital, the survey result of outpatient satisfaction shows that the OSI was 79.7% (Ahmad, 2019).

Health service quality has a strong relationship with patient satisfaction (Haryanto, 2017). The concept of quality related to patient satisfaction is determined by the terms SERVQUAL (Nursalam, 2014) consisting of tangible, assurance, responsiveness, empathy, and reliability. Besides SERVQUAL, outpatient's factors may affect outpatient satisfaction. The followings are previous studies concerning SERVQUAL and Outpatient Factors affecting patient satisfaction conducted in Indonesia.

1.1 Servqual

- Ungood tangible (physical appearance) service 3.3 times riskier on outpatient dissatisfaction compare to good tangible service (Marmean, 2017).
- Incompetent (reliability) health workers 11.2 times riskier on outpatient dissatisfaction compare to competent health workers (Manoppo, 2017).
- Slow responsiveness of health workers 34,8 times riskier on outpatient dissatisfaction compare to the fast responsiveness of health workers (Mumu, 2015).

- No assurance from hospital 16.4 times riskier on outpatient dissatisfaction compare to there is the assurance from the hospital (Mumu, 2015).
- Ungood empathy of health workers 8 times riskier on patient dissatisfaction compare to good empathy of health workers (Manoppo, 2017)

1.2 Outpatient's Factors

- Outpatient without paying to the hospital through health insurance 6.6 times riskier on outpatient dissatisfaction compare to outpatient paying health insurance (Suryati, 2017).
- Theoretically, the young age who needs health services less than the old age, so the young age riskier on outpatient dissatisfaction compare to the old age. However, a study found no association between age and outpatient satisfaction (Ulfa, 2012).
- One study found there was no association between education and outpatient satisfaction (Hidayati, 2014). However, another study found there is an association between education and outpatient satisfaction (Manoppo, 2017).
- Working people 2.6 times riskier on outpatient dissatisfaction compare to no working people (Ulfa, 2012).

The objective of this present study is to find an association between service quality and outpatient factors with their satisfaction. Based on the objective, specific objectives and hypotheses were developed. The usefulness of the present study is to produce information for enhancing outpatient satisfaction; as a consequence, the B hospital will get more and more income.

2. MATERIAL AND METHODS

Based on the objective of the study, the design type of present study is the analytic cross-sectional study (Lapau, 2015) where data for independent variables and a dependent variable were collected at the same time from outpatients of the B Hospital. The dependent variable is outpatient satisfaction namely the gap between what expected and what service performance felt by the outpatients visiting the B Hospital. The dependent variable and each independent variable is classified to be the risky category and no risky category. The category of the dependent variable namely outpatient satisfaction consists of two categories namely dissatisfaction and satisfaction. Each independent variable concerning service quality (SERVEQUAL) consists of 2 categories namely 1. risky category (less than the median), and 2. Non-risky category (same or more than median). The definition and category of each independent variables concerning service quality are as follows: a) tangible is the appearance of physical facilities, equipment, personnel, and communication materials: 1. ungood, and 2. good; b) responsiveness is the willingness to help outpatients and provide prompt services: 1. slow, and 2. fast; c) reliability is the ability to perform the promised services dependably and accurately: 1. incompetent, and 2. competent; d) assurance is knowledge and courtesy of employees and their ability to convey trust and confidence: 1. not assured, and 2. assured; e) empathy is caring, individualized attention the firm provides its outpatients: 1. ungood and 2. good. Each independent variable concerning outpatient's factors clarified and categorized as follows: a) payment to the hospital through health insurance: 1. without health insurance, and 2. with health insurance; b) the age of outpatients: 1. young (18 – 35 years), and 2. old (36 years or older); c) education of outpatients: 1. low (secondary school or lower), and 2. high (high school or higher); and d) occupation of outpatients: 1. working, and 2. no working.

The population of the present study was outpatients who have ever visited the B Hospital at least one time. The sample size was calculated based on the design type of study namely analytic cross-sectional study (WHO,1986) for each of 9 independent variables. In this case, based on

5% alpha error and 10% beta error, the largest minimal sample size for each independent variable is 200. Based on the number of the independent variable in this present study, the sample size is $9 \times 15 = 135$ (Mitra, 2015). So, the decision is that the sample size should be 200. The sample was taken from the outpatients visiting the B Hospital subsequently until the sample size reaching 200 (Ariawan, 1998).

Primary data concerning a dependent variable and 9 independent variables as mentioned above were collected from 200 respondents as written above. The technique of data collection was a structured interview using a questionnaire consisting of close-ended questions (Fiscer et al, 1983) Planning data collection consists of 3 phases namely 1) Phase 1: permission for the process of data collection: 2) Phase 2: a collection of data, and Phase 3: Handling of data (Varkevisser et al, 1970).

Analysis of data consists of univariate, bivariate, and multiple logistic regression analysis. The objective of the univariate analysis is to describe the frequency distribution of each risky category of the independent variable and to detect a homogenous independent variable where one of its categories of the independent variable is less than 15%. The objective of the bivariate analysis is to find an association between one independent and one dependent variable by calculating the prevalence odds ratio (POR) at a confidence level of 95% (CI 95%). If (CI 95%: OR = $>1 - >1$) means there is a significant association between one independent variable and one dependent variable: if (CI 95%: OR = $>1 - <1$) or (CI 95%: OR = $<1 - >1$) means there is no significant association between one independent variable and one dependent variable: if (CI 95%: OR = $<1 - <1$) means there is reversely significant association between one independent and one dependent variable. The objective of multiple logistic regression analysis is to find confirmed independent variables associated with one dependent variable namely outpatient satisfaction by conducting 2 phases namely bivariate selection and multivariate modeling which may find confounding variables.

3. RESULTS OF RESEARCH

3.1 Outpatient Satisfaction

The proportion of outpatient dissatisfaction was 35% at the B Hospital in Indonesia in 2020.

3.2 Bivariate Analysis

Among 9 independent variables in this present study, there are independent variables concerning service quality namely tangible (physical appearance), responsiveness, and empathy; and independent variables concerning outpatients namely paying hospital through health insurance, education, and occupation affect outpatients satisfaction.

3.3 Multivariate Analysis

Based on bivariate analysis as mentioned above, there are 6 independent variables associate with outpatient satisfaction significantly. However, based on multivariate analysis, Table 1 shows 4 independent variables significantly associate with outpatient satisfaction at the B Hospital as follows:

- Ungood tangible (physical appearance) service 4,6 times riskier on outpatient dissatisfaction compare to good tangible service (CI 95% : OR = 2,057-10,343).
- Slow responsiveness of health workers 5,5 times riskier on outpatient dissatisfaction compare to fast responsiveness of health workers (CI 95%: OR = 2,566-11,934).
- Ungood empathy of health workers 4,4 times riskier on outpatient dissatisfaction compare to good empathy of health workers (CI 95%: OR =1,908-9,469).

- Outpatient without paying to the hospital through health insurance 6 times riskier on outpatient dissatisfaction compare to outpatient paying the hospital through health insurance (CI 95%: OR = 2,726-12,842).

Table 1 The Last Multivariate Analysis Modeling on Factors Associating with Outpatient Satisfaction at the B Hospital in 2020

Independent Variables	P-Value	POR	(95% CI)
Tangible	0,000	4,632	2,057-10,343
Responsiveness	0,000	5,534	2,566-11,934
Empathy	0,000	4,250	1,908-9,469
Paying to Hospital	0,000	5,916	2,726-12,842

4. DISCUSSION

4.1 Quality and Accuracy of Data

Data quality is determined by relevancy and validity of data, while data accuracy is determined by relevancy, validity, and reliability of data (Lapau and Birwin. 2017). In this present study, data are relevant because data were collected, processed, and analyzed to achieve specific objectives and to prove hypotheses.

The validity of data consists of external validity and internal validity. In this present study, there is no external validity because the sample size was not a representative sample of a certain population so that the result of the research cannot be generalized to a certain population. Internal validity consists of systematic error and random errors. Internal validity opposite to systematic error. The systematic error consists of selection bias, information bias, and confounding bias. In this present study, the researchers cannot avoid selection bias because we did not take a sample from a certain population, information bias may happen, and multiple logistic regression analysis did not find confounding bias. The random error consists of alpha error and beta error. In this present study, based on confirmation of 5% alpha error and 10% beta error, we found a sample size of 200.

The researchers could not determine the reliability of the data because the data were collected only one time.

4.2 Causal Relationship

Multiple logistic regression analysis found 4 independent variables which associate with outpatient dissatisfaction at the B Hospital in 2020 namely tangible, responsiveness, empathy, and paying hospital through health insurance. The researchers use Hill criteria for a causal relationship (Beaglehole et al, 1999) namely temporal, plausibility, the strength of association, consistency, dose-response relationship, and design type of study as shown in the following Table 2: 1) *Temporal* + means that independent variable came first before the dependent variable; 2) *Plausibility* + based on the theory that independent variable associate with the dependent variable; 3) *The strength of association* measured by POR (prevalence odds ratio) describing the association between one independent and one dependent variable: the higher POR, the higher causal relationship; 4) *Consistency* + because the significant association between one independent and one dependent variable in the present study is the same as previous studies; 5) *Dose-response relationship* – because the measurement level of the independent variable is not continuous but categorical; 6) *Design type* – because the design type of present study is analytic cross-sectional study having a weak inference (Ibrahim, 1985).

Table 2 shows starting from the dominant to less dominant, there is a causal relationship between each of the independent variables namely paying to the hospital through health insurance, responsiveness, tangible, and empathy with outpatient satisfaction.

Table 2 Causal Relationship Between Several Independent Variables and Outpatient Satisfaction At the B Hospital in 2020

No	Hill Criteria	Independent Variables			Paying to Hospital through Health Insurance
		Tangible	Responsiveness	Empathy	
1	Temporal	+	+	+	+
2	Plausibility	+	+	+	+
3	Strength of Association (POR)	4,632 (2,057-10,343)	5,534 (2,566-11,934)	4,250 (1,908-9,469)	5,916 (2,726-12,842)
4	Consistency	+	+	+	+
5	Dose Response Relationship	-	-	-	-
6	Design Type	-	-	-	-

Explanation: (+) means there is a causal relationship
 (-) means there is no causal relationship

4.3 Implication

4.3.1 Paying to Hospital through Health Insurance

Paying to hospital by outpatient through health insurance has a causal relationship with outpatient satisfaction: Outpatients without paying to the hospital through health insurance feel dissatisfied compare to outpatient paying to the hospital through health insurance; therefore, we recommend the management of the B Hospital need to improve relevant aspects and factors enhancing outpatient satisfaction.

4.3.2 Responsiveness

Responsiveness has a causal relationship with outpatient satisfaction: Slow responsiveness of health workers affects outpatient dissatisfaction compare to fast responsiveness of health workers; therefore, we recommend the management of the B hospital to motivate the hospital's staffs and workers to respond to the need of outpatient as fast as possible.

4.3.3 Tangible

Tangible (physical appearance of hospital and health workers) has a causal relationship with outpatient satisfaction: ungood tangible of hospital and health workers affects outpatient dissatisfaction compare to good tangible of hospital and health workers; therefore, we recommend the management of the B Hospital to establish the team renovating the physical building and to improve physical health workers enhancing outpatient satisfaction.

4.3.4 Empathy

Empathy has a causal relationship with outpatient satisfaction: ungood empathy of hospital staffs and workers affect outpatient dissatisfaction compare to good empathy of hospital staffs

and workers; therefore, we recommend the hospital management to establish an Empathy Team to study how to enhance attention and care of hospital staffs and workers to enhance outpatient satisfaction. Besides, the hospital management should confirm the regulation namely those who do not conduct confirmed regulation will be punished.

5. CONCLUSION, RECOMMENDATION AND SUGGESTIONS

5.1 Conclusion

Without paying to the hospital through health insurance, slow responsiveness, ungood tangible (physical appearance of hospital and hospital staff and workers), and ungood empathy affect outpatient dissatisfaction.

5.2 Recommendation

The management of B Hospital has to establish Special Team to enhance outpatient satisfaction especially for those who do not pay the hospital through health insurance by discussing what intervention is necessary to motivate physicians and nurses, and other workers to be fast responsive, good tangible services, and good empathy to outpatients.

5.3 Suggestions

- The management of the hospital should train relevant staff and workers in theory and practice concerning the outpatient complaint and what they need for good quality of services.
- The management of the hospital forms the team to discuss and decide what physical appearance of the building, parking lot, beautiful park of flowers, etc which are interesting for the outpatients which affect them visiting the hospital again.
- The management of the hospital forms the team consisting of clothing experts what physical appearance of hospital staffs and workers should be created which make the outpatients interested in coming back to visit the hospital.
- The management of the hospital should train relevant staff and workers concerning theory and practice to enhance their empathy for patients who need care and help.
- The management of the hospital should form a lawyer team to create the regulation concerning responsiveness and empathy which are relevant for hospital staff and workers. Those who violate the regulation will be punished.
- The management of the hospital should find health such a kind of insurance for the outpatients which is suitable for their social-economic to pay.
- The management of the hospital should approach the Republic of Indonesia government to pay the hospital for the poor outpatients.

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