

AN ANALYSIS OF SERVICE EXPERIENCE AND PERCEIVED VALUE INFLUENCE ON PATIENT'S SATISFACTION AT REGIONAL PUBLIC HOSPITALS IN SOUTH SULAWESI PROVINCE

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ABSTRACT

BACKGROUND:

The service experience and perceived value that occurs in every interaction between patient and service provider will influence the patient's satisfaction. This study aims to analyze the effect of service experience and perceived value on patient's satisfaction at Regional Public Hospitals in South Sulawesi, Indonesia.

METHODS:

The method used in this study was cross sectional by distributing questionnaires to 270 outpatients and 266 inpatients as respondents. Sampling was carried out by using proportional stratified random sampling technique from each participating hospital. Data were analyzed using multiple linear regression tests.

RESULTS:

The results showed that service experience had an effect on patient's satisfaction in inpatient care [$\beta=0.598$, $t=3.163$; $p=0.002$] and in outpatient care [$\beta=0.13$, $t=2.89$; $p=0.004$]. Perceived value had an effect on patient's satisfaction in inpatient care [$\beta=0.323$, $t=1.709$; $p=0.04$] and in outpatient care [$\beta=0.108$, $t=2.391$; $p=0.017$].

CONCLUSION:

Service experience and perceived value impact patient satisfaction.

KEYWORDS

Service experience, Perceived value, Patient's satisfaction

INTRODUCTION

Patient satisfaction with health care is an important component of organizational performance in the hospital environment [1]. Patient satisfaction refers to how great the expectation and demanded goals and preferences are when services are provided by health care providers [2]. When patients feel satisfied with the treatment, they will follow the doctor's instructions, be more loyal, have a positive impression, fewer complaints and enable higher profits, higher return rates and more patient references [3]. A previous study showed that satisfied patients tend to follow treatment instructions and medical advice because they are more likely to believe that treatment will be effective [4]. The ability of any organization to satisfy its customers is most easily realized when these expectations are managed to be consistent with product and process [5]. Based on previous studies, patient satisfaction is strongly influenced by service experience [6]. Meanwhile, service cues can affect satisfaction through the perception formed in each service experience [7].

Perceived value also affects patient satisfaction. Studies have shown that satisfaction is strongly influenced by perceived value [8,9]. Perceived value is one of the most important elements to gain competitive advantage and is considered as a significant predictor of satisfaction [10,11]. This is supported by Ali [12] who found that there is a unique correlation between perceived value and customer satisfaction. Perceived value plays an important role in increasing the level of patient satisfaction [13], which indicates that patient satisfaction will be higher if the perceived value and quality exceeds patient expectations [14]. Customer perceived value can be described as an evaluation to compare the perception of perceived value and the actual results of the purchase experience [15]. Meanwhile, Berry and his colleagues [16] stated that satisfaction comes from the perception that is formed in each service experience when there is interaction between customer and service provider. In interactions, customers do not evaluate the value at the purchase stage but at the consumption or service use stage [17]. This experience is influenced by sensory and emotional instructions that reveal a perception, either rational or emotional, and they influence satisfaction [16,18].

The Regional Public Hospitals in South Sulawesi Province has conducted a survey in inpatient and outpatient facilities in 2017-2019 and found that more than half of the total

percent of patients felt satisfied (66.4% in Haji Regional Public Hospital, 68.9% in Labuang Baji Regional Public Hospital and 50.6% in Sayang Rakyat Regional Public Hospital). According to Kepmenkes No.129 of 2008 (Minister of Health Decree.), the minimum standard of patient satisfaction should be $\geq 90\%$. Therefore, the results of the survey reported did not meet the target criteria. However, it can still be concluded that the satisfaction felt by patients is quite high and considered. As mentioned earlier, there may be factors that can influence these results. Previous studies highlight that these factors need to be investigated in relation to patient satisfaction [7,17]. Patients will interact with the health service provider when they visit the hospital and experience the service and also have value-oriented interactions according to their needs. Therefore, we hypothesized that service experience and perceived value will positively affect the effectiveness of feeling satisfied by patients in hospital services. The objective of this study was to investigate the effect of service experience and perceived value on patient satisfaction at the Regional Public Hospitals in South Sulawesi.

METHODS

RESEARCH DESIGN AND LOCATION

This research was conducted at the inpatient and outpatient facilities of the Regional Public Hospitals in South Sulawesi (i.e., Haji Hospital, Labuang Baji Hospital and Sayang Rakyat Hospital). The type of study used is an analytical observational study with a cross-sectional design.

POPULATION AND SAMPLE

The population in this study were patients who underwent treatment at inpatient and outpatient facilities of the Regional Public Hospitals in South Sulawesi. The sample was calculated according to the formula of Isaac and Michael [19].

$$s = \frac{\lambda^2 \cdot N \cdot P \cdot Q}{d^2(N-1) + \lambda^2 \cdot P \cdot Q}$$

s = sample

λ = Chi-square Table

N = Population

P = proportion probability (P=0.5)

Q = proportion probability (Q=0.5)

d = degree of freedom

Therefore, the total sample was 270 outpatients and 266 inpatients. The sample was selected by proportional stratified random sampling [19], see Table 1.

TABLE 1. TOTAL OF SAMPLE AT REGIONAL PUBLIC HOSPITAL IN SOUTH SULAWESI PROVINCE

Hospitals	Sub-population	Sample of Outpatients	Sub-population	Sample of Inpatients
Haji Regional Public Hospital	25163	79	10537	155
Labuang Baji Regional Public Hospital	43069	135	5368	79
Sayang Rakyat Regional Public Hospital	17836	56	2186	32
Total	86068	270	18091	266

INSTRUMENT AND PROCEDURE

The questionnaire used was a modified questionnaire from several previous studies that related to service experience (e.g., the nurse provides the information that I need; $\alpha = 0.889$), perceived value (e.g., hospital services are well organized; $\alpha = 0.891$) and patient's satisfaction (e.g., procedure for hospital service is very easy; $\alpha = 0.933$) [9,17,20,24,26].

Data collection was conducted by distributing questionnaires to patients after approval for participation and signed written informed consent. All research procedures have received approval from Health Research Ethics Committee (KEPK), Faculty of Public Health, Hasanuddin University, with letter number: 11907/UN4.1.4.1/TP.01.02/2002.

DATA ANALYSIS

Data were collected and analyzed using IBM's SPSS for Windows software, version 24.0 (IBM Corp., Armonk, NY, USA).

Frequencies and percentages were applied for univariate analysis. The effect of independent variables was analyzed at the multivariate level using multiple linear regression by controlling age, sex, education, occupation, income and type of finance. The results of multiple regression were performed using adjusted R-squared and coefficient standard (β). The Adjusted R-squared considers the number of independent factors used to predict the target variable. Meanwhile, the beta coefficient can be used to compare independent variables directly in order to ascertain which has the greatest impact on the dependent variable. The test was considered significant when the p-value is <0.05 ($\alpha=0.05$) at a 95% level of confidence.

RESULTS

Tables 2 and 3 demonstrate demographic findings from the participants and service experience.

TABLE 2. DISTRIBUTION OF RESPONDENT'S CHARACTERISTICS IN PATIENTS AT REGIONAL PUBLIC HOSPITAL IN SOUTH SULAWESI

Respondent's Characteristics	Inpatient care	Outpatient care
	n (%)	n (%)
Age category		
17-25	88 (33.0)	89 (33.0)
26-35	96 (36.0)	104 (39.0)
36-45	74 (28.0)	67 (25.0)
46-55	8 (3.0)	10 (4.0)

Respondent's Characteristics	Inpatient care	Outpatient care
	n (%)	n (%)
Sex		
Male	82 (31.0)	89 (33.0)
Female	184 (69.0)	181 (67.0)
Education		
Junior High School	7 (3.0)	3 (1.0)
Senior High School/Vocational School	204 (77.0)	198 (73.0)
Associate's Degree	17 (6.0)	26 (10.0)
Bachelor	31 (12.0)	36 (13.0)
Others	7 (3.0)	7 (3.0)
Occupation		
Civil Servant	68 (26.0)	50 (19.0)
Private Employee	60 (23.0)	75 (28.0)
Entrepreneur	78 (29.0)	93 (34.0)
Unemployed	32 (12.0)	37 (14.0)
Others	28 (11.0)	15 (6.0)
Income		
No Income	32 (12.0)	31 (11.0)
Rp < 1.000.000	73 (27.0)	76 (28.0)
Rp 1.000.000 - Rp 2.500.000	97 (36.0)	87 (32.0)
Rp >2.500.000 - Rp 5.000.000	45 (17.0)	56 (21.0)
Rp > 5.000.000	19 (7.0)	20 (7.0)
Type of finance		
General	22 (8.0)	26 (10.0)
Social Health Insurance	220 (83.0)	230 (85.0)
Other Insurances	24 (9.0)	14 (5.0)
Total	266 (100)	270 (100)

Data are presented as frequencies (n) and percentages (%).

Table 2 sets out that most respondents were in the age of 26-35 years, with 96 people as inpatient (36.0%) and 104 people as outpatient participants (39.0%). Women were most common participants, with 184 (69.0%) inpatients and 181 (67.0%) outpatients. Most of the participants had completed their high school/vocational training - 204 (77.0%) inpatients and 198 (73.0%) outpatients; and worked as entrepreneurs (78 inpatients or 29.0% and 93 outpatients or 34.0%). The income of inpatient and outpatient groups were high in the range of Rp 1,000,000 - Rp 2,500,000

(97(36.0%) and 87(32.0%)) and had a type of finance social health insurance (220(83.0%) and 230(85.0%)).

MULTIVARIATE ANALYSIS

Table 3 shows that the adjusted R-squared values for inpatients and outpatients were 0.100 and 0.134, which means that the variables of service experience and perceived value influence inpatient satisfaction by 10% or slightly more. Meanwhile, standardized coefficient (β) value of service experience and perceived value was high

in inpatients than in outpatients, but overall had significant p-value ($p < 0.05$). This means that the increase of service experience and perceived value significantly affected the high patient satisfaction for 0.5 times and 0.3 times in inpatients, but not so high in outpatients (i.e., only 0.1 times).

However, the results confirmed the significant effect of service experience and perceived value on patient satisfaction.

TABLE 3. THE EFFECT OF SERVICE EXPERIENCE AND PERCEIVED VALUE AT REGIONAL PUBLIC HOSPITAL IN SOUTH SULAWESI PROVINCE

Type of Service	Variable	Adjusted R-squared (R^2)	Standard Coefficients (β)	t	p-value
Inpatient Care	Service Experience	0.100	0.598	3.163	0.002
	Perceived Value		0.323		
Outpatient Care	Service Experience	0.134	0.13	2.89	0.004
	Perceived Value		0.108		

Dependent variable: Patient satisfaction

Data analyzed using multiple linear regression by controlling for age, sex, education, occupation, income, and type of finance

DISCUSSION

Service experience can be gained in any interaction between the patient and the service provider. Customers always have experience when they interact with a company [7]. The results of the multiple linear regression test at the Regional Public Hospitals in South Sulawesi province showed that there is an influence between service experience and patient satisfaction. This means that the level of patient's satisfaction is influenced by the experience felt while receiving the service. If the patient's overall experience is not good enough, then the patient will feel less satisfied. Conversely, if the overall experience is good, the patient will be satisfied.

The results of this study are consistent with the study conducted by Retnaningsih [22], who found that there was a significant influence between service experience and customer satisfaction at the inpatient facility of South Sulawesi Regional Public Hospital. The results of this study are also consistent with the study conducted by Bea [20] who found that there is also a significant influence between service experience and customer's satisfaction at the Inpatient Installation of South Sulawesi Regional Public Hospital. Therefore, the hospital should maintain a satisfied patient or customer service experience. The hospital should maintain a satisfied service to get positive experiences from patients. The more satisfied patients are with their experience in the service operation system, the more

competitive facilities are [23]. The hospital needs to improve the service operation by objectively mapping the patients' service experience from their perspective. Paying more attention to customers' service experience will improve the effectiveness of service operation [23].

This study also found that perceived value significantly affects patient satisfaction in regional public hospital in South Sulawesi province. This issue shows that the level of patient satisfaction is influenced by perceived value. If the patient perceives a bad value, the patient would be dissatisfied. Conversely, if the patient perceives good value, the patient would be satisfied. Perceived value is defined as the consumer's overall evaluation of the use of a product or service based on the perception of "what is received" or/and "what is given". Zeithaml et al. [24] found that some consumers receive value in exchange for the price paid. The results of multiple linear regression showed that there is an influence between perceived value on patient satisfaction.

The results are consistent with Rahmani et al. [25] who found that there is a significant relationship between perceived value and patient satisfaction. Milfelner and colleagues [26] also found that perceived value has a significant impact on customer satisfaction. Perceived value is one of the most important elements to gain competitive advantage and is considered a significant predictor of satisfaction.

Furthermore, Wu et al. [8] found that perceived value has a positive effect on patient satisfaction. In addition, there are several studies that also show that satisfaction is strongly influenced by perceived value [9,10,27]. For example, Surydana [14] stated that perceived value has a significant effect on patient satisfaction because patient satisfaction can build a long-term relationship. This indicates that satisfaction will be higher if the perceived value exceeds the patient's expectation. Therefore, because the customer is value-oriented, the hospital should know the concept of perceived value and the patient's tendency to go to the hospital. Park et al. suggest that customers' perceived value is influenced by their needs [17]. In addition, high customer perceived value guarantees customer satisfaction and customer loyalty.

A limitation of the current study is that the result represented only the government hospitals. A different situation could be found when compared with private hospitals. Therefore, caution should be taken in generalizing these results. Another possible limitation is that other variables not included in the study may also influence patient satisfaction.

CONCLUSION

From the results of the study, it can be concluded that there was an effect of service experience and perceived value on patient satisfaction. By improving the quality of service experience and perceived value can increase patient satisfaction in regional public hospital in South Sulawesi province. This means that patients place more emphasis on service experience, although the role of perceived value also determines patient satisfaction. In understanding this relationship, the hospital should provide a strong focus in providing the best service experience and increasing the perceived value of hospital service, therefore, can achieve patient satisfaction according to established standards.

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