



## ORIGINAL ARTICLE

## Patient satisfaction towards healthcare quality in Indonesian Public Hospital<sup>☆</sup>



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### KEYWORDS

Healthcare quality;  
Inpatient care;  
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Patient satisfaction

### Abstract

**Objective:** This study aims to evaluate patient satisfaction towards healthcare quality in Indonesian public hospital.

**Method:** The study design was quantitative with an analytic observational approach. A total of 39 respondents were included using proportional stratified random sampling. The modified Press Ganey inpatient survey was used in this study and has been translated into the Indonesian language using cross-cultural adaptation.

**Results:** The patient satisfaction with healthcare quality was significantly different based on the type of inpatient class ( $p=0.000$ ), and the differences were found in four dimensions: effectiveness ( $p=0.009$ ), accessibility ( $p=0.001$ ), patient-centeredness ( $p=0.003$ ), and equity ( $p=0.001$ ). Meanwhile, no statistical difference was found in patient satisfaction with healthcare quality based on patients' length of stay.

**Conclusion:** Patients' satisfaction was similar towards healthcare quality regardless of the various length of stays, but divergent according to inpatient class types. These findings would provide information for healthcare managers and hospital policymakers to enhance their healthcare services.

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## Introduction

Patient satisfaction has become an indicator of healthcare quality.<sup>1</sup> Results of patient satisfaction with the quality of healthcare services are essential feedback for quality and access improvement.<sup>2</sup> As confirmed by the previous study that patient evaluation on healthcare services was significant for gap identification and action plan development for healthcare quality improvement.<sup>3</sup> Hence, hospitals are recommended to consider patient satisfaction as one of their healthcare quality outcome measures.<sup>4</sup>

Patient satisfaction is measured by evaluating several factors experienced by patients, and the results of the evaluation can be examined by researchers to implement new programs and policies that may improve patient satisfaction for better health care outcomes.<sup>5</sup> The abovementioned factors include all healthcare services delivered by the employees, including nurses and doctors; and also they reflect the patients' thoughts about the general appearance, cleanliness, quietness, and waiting time.<sup>5,6</sup>

Nowadays, quality involves a sense of superiority and excellence that attaches the acquisition of goods or uses of services due to their outstanding features.<sup>7</sup> The Institute of Medicine and the World Health Organization had suggested a health system to improve six dimensions of healthcare quality, consisting of safety, effectiveness, patient-centeredness, timeliness, efficiency, and equity.<sup>8,9</sup> Quality in health care seems to be a complex issue and significant variation regarding the interpretation of quality both patients' and healthcare professionals' perspectives.<sup>7</sup> Patient satisfaction is a result of addressing patients' expectations and degree of needs to which healthcare is accepted.<sup>10</sup>

Conducting a study of patient satisfaction would be a valuable source of indications for the area of healthcare quality improvement.<sup>11</sup> Several studies had been conducted in Indonesia, focusing only on patients' satisfaction based on their health insurance programs.<sup>12,13</sup> None of those studies evaluated patient satisfaction on healthcare quality based on the type of inpatient class and length of hospital stays. In fact, the majority of patients in Indonesia are hospitalized in public hospitals, which offer services based on types of health insurance and inpatient class.<sup>14</sup> Hence, this study aimed to evaluate patient satisfaction towards healthcare quality in Indonesian public hospital.

## Method

A quantitative design with observational analytic was used in this study to evaluate patient satisfaction towards healthcare services in Indonesian public hospital. The data were obtained using a Press Ganey inpatient survey that has been modified and translated into the Indonesian language using cross-cultural adaptation.<sup>15</sup> Some steps of adaptation and translation were implemented in this study included forward translation, forward review translation, and expert panel.<sup>16</sup> The final agreement for questionnaire translation from the panel experts was used for data collection. The modified questionnaire consisted of six dimensions of patient satisfaction towards healthcare services, including efficiency, effectiveness, accessibility, patient-centeredness, equity,

and safety. Another questionnaire was used to retrieve information from the patient medical records about patients' social-economic characteristics and length of hospital stays.

Stratified random sampling was applied in this study. The researcher initially identified the relevant inpatient units and the representativeness of this population. Next, the population was stratified into seven inpatient units. Then, a sufficient number of samples from each unit were randomly selected using the medical record number. The sample size was calculated according to numbers of the population, and proportionate size was applied to represent the patients from each inpatient unit (inpatient unit A=5, B=6, C=9, D=6, E=2, F=5, G=6).<sup>17</sup> Thus, a total of 39 samples were included in this study.

Frequencies (*n*) and percentages (%) were calculated for patient social-economic characteristics, while mean (*M*) and standard deviation (*SD*) were analyzed for patient satisfaction scores. One-way ANOVA test was performed to compare patient satisfaction scores among different inpatient classes, and the independent t-test was computed to evaluate patient satisfaction scores based on patients' length of hospital stays.<sup>17</sup> The significant level was set at 0.05.

Ethical approval for this study was obtained from the Institutional Review Board of the Faculty of Medicine, Hasanuddin University (1026/H.4.8.4.5.31/PP36-KOMETIK/2017). The study was conducted in accordance with the Helsinki Declaration. Participants were explained about the study aims and procedures before signing the informed consent.

## Results

A total of 39 respondents were included in this study. As shown in [Table 1](#), more than half of the participants were males, graduated from High School and above had a job, and hospitalized in the 3<sup>rd</sup> inpatient class. The majority of respondents were covered by the National Health Insurance Agency. The average respondents' age was 40.8, and the length of stay was 3.6 days.

[Table 2](#) summarizes the comparison of patient satisfaction with the quality of health services based on types of inpatient ward. As can be clearly seen in [Table 2](#), there were significant differences in patient satisfaction towards healthcare quality based on types of inpatient ward ( $p=0.000$ ). Respondents hospitalized in the VIP room had the highest level of satisfaction ( $M=248.5$ ;  $SD=\pm 0.7$ ), followed by those hospitalized in the VVIP ( $M=248$ ;  $SD=\pm 11.2$ ), first-class ( $M=229$ ;  $SD=\pm 10.6$ ), 2<sup>nd</sup> class ( $M=227.6$ ;  $SD=\pm 4.6$ ), and 3<sup>rd</sup> class wards ( $M=209.4$ ;  $SD=\pm 14.1$ ), accordingly. Regarding the dimensions of healthcare quality, this study found that there were significant differences in four dimensions of patient satisfaction depending on the types of inpatient ward as follows, effectiveness ( $p=0.009$ ), accessibility ( $p=0.001$ ), patient-centeredness ( $p=0.003$ ), and equity ( $p=0.001$ ). Respondents who stayed in the VIP room had the highest mean score for effectiveness ( $M=44$ ;  $SD=\pm 1.4$ ) and accessibility ( $M=48$ ;  $SD=\pm 1.4$ ), while those hospitalized in the VVIP had the highest mean score for patient-centeredness ( $M=47.5$ ;  $SD=\pm 3.4$ ) and equity ( $M=45.7$ ;  $SD=\pm 0.8$ ).

**Table 1** Respondent characteristics ( $n = 39$ ).

Characteristics	<i>n</i>	%	<i>M</i> ± <i>SD</i>	Min–max
Age (year)			40.8 ± 14.9	18–65
Gender				
Male	21	53.8		
Female	18	46.2		
Education level				
Elementary school	9	23.1		
Middle school	7	17.9		
High school	15	38.5		
College/University	7	17.9		
No education	1	2.6		
Occupation				
Civil servant	3	7.7		
Entrepreneur	9	23.1		
Farmers	10	25.6		
Housewife	9	23.1		
Students	5	12.8		
Unemployed	1	2.6		
Others	2	5.1		
Types of the inpatient ward				
Third class	21	53.8		
Second class	5	12.8		
First-class	5	12.8		
VIP	2	5.1		
VVIP	6	15.4		
Types of health insurance				
National health insurance	38	97.4		
Other types of health insurance	1	2.6		
Length of hospital stays (day)			3.6 ± 0.9	3–7

Table 3 depicts the comparison of patient satisfaction towards healthcare quality based on patients' length of stay. As shown in Table 3, there were no differences in patient satisfaction towards healthcare quality between respondents who were hospitalized for three days, and those who stayed more than three days ( $p = 0.376$ ). Likewise, no discrepancies were reported in all dimensions of patient satisfaction.

## Discussion

This study aimed at evaluating patient satisfaction towards healthcare quality in Indonesian public hospital. The principal findings of this study were that the level of satisfaction varied depending on types of an inpatient ward but conformed regardless of the length of hospital stays. This study also found that there were variations in patient satisfaction dimensions, especially in terms of effectiveness, accessibility, patient-centeredness, and equity, when patients were hospitalized in diverse inpatient units. This study revealed that patients hospitalized in the VIP room had the highest level of satisfaction compared to those hospitalized in other types of inpatient ward. These discrepancies probably occurred due to the implication of the Indonesian public financing schemes through which a

certain scheme will offer different benefits for the patients. For instance, patients who are civil servants (rank 1) and covered by the National Health Insurance Agency, can be admitted to the second class ward,<sup>14</sup> which has more luxurious facilities and more comfortable than the third-class ward.<sup>18</sup> In line with this study, a previous study has proved that patients who were admitted to the higher health facilities with basic amenities feeling more satisfied than those at the lower level facilities.<sup>10</sup> Hospital cost is also considered as a determinant factor for inpatient class admission, health service access, and utilization, and patient satisfaction.<sup>19</sup>

Another finding from this study was that the level of patient satisfaction regarding the patient-centeredness dimension was reported significantly different. This study outcome is relevant to the previous study result, which revealed that nurses delivered nursing care to patients fairly and professionally regardless of their condition.<sup>20,21</sup> The previous study explained that nurses' courtesy, respect, active listening, and easy access to care were particularly the determinant factors for attaining patient satisfaction.<sup>20</sup> Similarly, another study discovered that patients felt more satisfied with nurses who performed nurse caring behavior, including promptly responded to their needs or complaints.<sup>22,23</sup>

**Table 2** Differences in patient satisfaction towards healthcare quality based on types of inpatient ward at Indonesian Public Hospital ( $n = 39$ ).

Variable	Types of inpatient ward										<i>p</i>
	VVIP		VIP		First class		Second class		Third class		
	<i>M</i> ± <i>SD</i>	Min-max	<i>M</i> ± <i>SD</i>	Min-max	<i>M</i> ± <i>SD</i>	Min-max	<i>M</i> ± <i>SD</i>	Min-max	<i>M</i> ± <i>SD</i>	Min-max	
Patient satisfaction toward quality of health services	248.0 ± 11.2	234-262	248.5 ± 0.7	248-249	229.0 ± 10.6	213-239	227.6 ± 4.6	220-232	209.4 ± 14.1	190-234	<b>0.000<sup>a,*</sup></b>
Effectiveness	43.2 ± 1.8	34-46	<b>44.0 ± 1.4</b>	43-45	43.4 ± 2.5	39-45	39.4 ± 4.9	34-43	38.2 ± 3.9	34-46	<b>0.009<sup>a,*</sup></b>
Efficiency	41.8 ± 5.3	35-46	45.5 ± 0.7	45-46	42.8 ± 5.4	35-49	41.0 ± 3.7	35-44	38.7 ± 5.3	32-49	0.129 <sup>a</sup>
Accessibility	47.5 ± 3.4	44-53	<b>48.0 ± 1.4</b>	46-48	40.8 ± 6.6	33-48	43.0 ± 4.4	35-46	37.8 ± 4.4	36-46	<b>0.001<sup>a,*</sup></b>
Patient-centeredness	<b>47.5 ± 3.4</b>	44-53	47.0 ± 1.4	46-48	41.0 ± 6.6	33-48	42.8 ± 4.4	35-46	37.8 ± 4.3	33-46	<b>0.003<sup>a,*</sup></b>
Equity	<b>45.7 ± 0.8</b>	45-47	45.0 ± 1.4	44-46	38.8 ± 4.0	34-43	41.4 ± 3.8	35-44	38.2 ± 3.8	34-47	<b>0.001<sup>a,*</sup></b>
Safety	22.3 ± 0.8	22-24	19.0 ± 4.2	16-22	22.2 ± 1.3	21-24	20.0 ± 2.8	17-23	18.6 ± 2.2	16-23	0.183 <sup>a</sup>

Note. <sup>a</sup>One-way ANOVA test, \*Significance level of 0.05.

**Table 3** Comparison of patient satisfaction towards healthcare quality based on the length of hospital stays at Indonesian public hospital ( $n = 39$ ).

Variable	Length of hospital stays				<i>p</i>
	3 days		>3 days		
	<i>M</i> ± <i>SD</i>	Min–max	<i>M</i> ± <i>SD</i>	Min–max	
Patient satisfaction toward quality of health services	223.0 ± 18.7	–	221.0 ± 20.9	–	0.376 <sup>a</sup>
Effectiveness	40.4 ± 4.1	34–46	39.7 ± 4.3	34–45	0.306 <sup>a</sup>
Efficiency	40.4 ± 5.4	32–49	40.3 ± 5.0	33–49	0.457 <sup>a</sup>
Accessibility	40.7 ± 5.5	33–50	41.1 ± 6.0	33–53	0.431 <sup>a</sup>
Patient-centeredness	40.7 ± 5.7	33–50	41.0 ± 5.9	33–53	0.436 <sup>a</sup>
Equity	40.4 ± 4.5	34–47	39.9 ± 4.3	34–46	0.366 <sup>a</sup>
Safety	20.4 ± 2.6	16–24	19.1 ± 2.5	16–24	0.066 <sup>a</sup>

Note. <sup>a</sup>Independent *t*-test.

The last finding of this study indicated no significant differences in patient satisfaction towards healthcare quality based on the length of hospital stays. This is mainly due to there were various factors affecting patient satisfaction.<sup>3</sup> This study has a similar result with the previous study, which confirmed that patient satisfaction was not correlated with the length of hospital stays, but it was associated with the nursing staff's clinical performances.<sup>24</sup>

## Conclusion

This study concluded that patient satisfaction towards healthcare quality varied across inpatient class wards. This finding provides the opportunity for healthcare managers and hospital policymakers to obtain a better understanding of patients' views and perceptions and to apply the patient evaluation for healthcare quality improvement.

## Conflict of interest

The authors declare no conflict of interest.

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