

## Research Article

# Hospital Service Quality and Behavioral Compliance: The Role of Patient Satisfaction as Mediator

Sefnedi Sefnedi\*, and Wiry Utami

Faculty of Business and Economics of Universitas Bung Hatta, Padang, Indonesia

**ORCID**

Sefnedi Sefnedi: 0000-0003-1585-3930

Wiry Utami: 0000-0003-1744-900X

**Abstract.** The notion of behavioral compliance in the healthcare sector has been getting attention from academics and practitioners. However, the determinants of behavioral compliance are still debated. This study was conducted to investigate the impact of patient satisfaction as a mediator on the relationship between hospital service quality and behavioral compliance. The results revealed that hospital service quality had a significant effect on patient satisfaction and behavioral compliance. Furthermore, behavioral compliance was positively explained by patient satisfaction. Interestingly, this study demonstrated that patient satisfaction mediated the hospital service quality and behavioral compliance relationship.

**Keywords:** hospital service quality, patient satisfaction, behavioral compliance

Corresponding Author: Sefnedi  
Sefnedi; email:  
sefnedi@bunghatta.ac.id

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## 1. INTRODUCTION

The healthcare industry has grown rapidly in Indonesia and has become a potential market for healthcare business. Besides having the fourth largest population of the world after China, India, and the United States, Indonesia faces keen competition in the health industry. It is true that behavioral compliance is one of the marketing strategies to win the market competition that explains patient behaviour during and after receiving healthcare services. Behavioral compliance is conceptualized as the degree of patients follow instructions and advice consistently [1]. In order to create an effective healthcare service, patient cooperation during service delivery has been becoming an important thing. Therefore, compliance with treatment is one of the important healthcare issues to ensure treatment, costs control and patient safety efficiently and effectively [2].

On the other hand, a previous study argues that one of factors influences behavioral compliance is patient satisfaction [3]. Patient satisfaction is conceptualized as a comparison between perceived expectations and reality [4]. Thus, there is a linear relationship between patient satisfaction and behavioral compliance. In other words, the higher the

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level of patient satisfaction, the higher patient compliance will be. Empirically, evidence displays that satisfied patients with healthcare comply on the treatment and have better outcomes [5].

Other variable was found to affect behavioral compliance is hospital service quality. Hospital service quality is the totality and nature of a product or service that affects the ability to satisfy stated or implied needs [4]. Thus it can be interpreted that there is a unidirectional relationship between hospital service quality and behavioral compliance. In other words, the better the hospital service quality perceived by the patient, the higher the level of patient behavioral compliance and vice versa if the hospital service quality perceived by the patient is not good, this will have an impact on the lower level of patient behavioral compliance.

The previous studies found hospital service quality affected behavioral compliance significantly [6]. However, other studies displayed how hospital service quality explains behavioral compliance are far from conclusive, meaning that hospital service quality did not affect behavioral compliance directly but rather detected through mediators [7].

Some research gaps that could be addressed in this study are first, there is still very limited research on behavioral compliance, especially in the health industry. Second, there is still very limited research that examines the role of patient satisfaction as a mediator on the relationship between service quality and behavioral compliance.

The literature of service quality confirmed that hospital service quality leads to patient satisfaction [7]. Then, an increase of patient satisfaction enhances behavioral compliance [6]. In this relationship, patient satisfaction as a mediator affects hospital service quality and behavioral compliance. Therefore, this study posits the following hypotheses.

H<sub>1</sub>: Hospital service quality has positive effect on behavioral compliance.

H<sub>2</sub>: Hospital service quality has positive effect on patient satisfaction.

H<sub>3</sub>: Patient satisfaction has positive effect on behavioral compliance.

H<sub>4</sub>: Patient satisfaction mediates the relationship between hospital service quality and behavioral compliance.

## 2. METHODOLOGY/ MATERIALS

This research was an empirical study on private hospitals in Padang's city. In terms of variables' measurement, this study employed previously validated scales. The questionnaire was designed by performing google form. It was developed and sent to selected

TABLE 1: The Respondent's Profile

Demography	Categories	Frequency	(%)
Sex	Male	68	46.3
	Female	79	53.7
Age	17 - 27 Years old	18	12.2
	28 - 38 Years old	28	19.1
	39 - 49 Years old	40	27.2
	50 - 60 Years old	61	41.5
Occupation	Government employees	33	22.4
	Private employees	51	34.7
	Farmer	11	7.5
	Fisherman	13	8.8
	Lecturers / Teachers	27	18.4
	Students	9	6.1
	Others	3	2.0
Education	Junior High School	14	9.5
	Senior High School	42	28.6
	Bachelor	77	52.4
	Postgraduate	12	8.2
	Doctor / Ph.D	2	1.4

sample and resulting 147 questionnaires were returned that accounted for response rate of 86.3%. The data analysis was conducted by performing SEM-PLS that consisted of measurement model assessment (instrument test) and structural model assessment (hypothesis testing).

### 3. RESULTS AND DISCUSSIONS

The results of analysis will begin by presenting the respondent's profile as follows:

Table 1 displayed that the major of participating respondents were female (53.7%) and the remaining were male (46.3%). A large percentage of the participating ages were in 50-60 years old (41.5%). In terms of occupation, the majority of respondents worked as private employees (34.7%). With regard to formal education, the majority of the respondents obtained bachelor (52.4%) then followed by senior high school (28.6%), junior high school (9.5%), postgraduate (8.2%), and doctor / Ph.D (1.4%) respectively.

Measurement model assessment was employed to evaluate the relationship between the construct and its indicators or items. Measurement model assessment was divided into two parts, namely convergent validity and discriminant validity. Convergent validity

TABLE 2: Convergent Validity

No.	Variables	Items	Outer Loadings	Cronbach's Alpha	Composite Reliability	AVE
1	Behavioral Compliance	BC2	0.782	0.881	0.928	0.813
		BC3	0.851			
		BC4	0.862			
2	Patient Satisfaction	PS2	0.792	0.915	0.937	0.748
		PS3	0.919			
		PS4	0.896			
		PS6	0.836			
		PS7	0.878			
3	Hospital service quality	SQ1	0.817	0.945	0.956	0.756
		SQ4	0.843			
		SQ7	0.825			
		SQ9	0.814			
		SQ11	0.766			
		SQ12	0.795			
		SQ15	0.808			
		SQ16	0.731			
		SQ18	0.776			
		SQ20	0.719			
SQ22	0.819					

could be evaluated through four criteria, namely outer loading > 0.70 [8], cronbach's alpha > 0.70, composite reliability > 0.70 and average variance extracted (AVE) > 0.50 [9]. The final results of the measurement model assessment analysis are presented in the Table 2.

Table 2 above showed that all of items for variables of behavioral compliance, patient satisfaction, and hospital service quality had outer loadings higher than 0.7. Furthermore, the score of AVE for the variable of behavioral compliance, patient satisfaction and hospital service quality were found 0.813, 0.748, and 0.756 respectively (higher than 0.5). This indicated that the measurement variance was categorized into latent variables. The values of composite reliability and cronbach's alpha for all variables were greater 0.7. Therefore, these values were good [9], meaning that the value of each item of behavioral compliance, patient satisfaction and hospital service quality were reliable and the data was quite consistent.

TABLE 3: Discriminant Validity

No	Variables	Behavioral Compliance	Hospital service quality	Patient Satisfaction
1	Behavioral Compliance	<b>0.902</b>	-	-
2	Hospital service quality	0.335	<b>0.869</b>	-
3	Patient Satisfaction	0.509	0.601	<b>0.865</b>

TABLE 4: Structural Model Assessment

No	Direction	Original Sample	T-Statistics	P Values
1	Hospital service quality → Behavioral Compliance	0.145	2.325	0.025
2	Hospital service quality → Patient Satisfaction	0.329	3.275	0.001
3	Patient Satisfaction → Behavioral Compliance	0.482	3.634	0.000
4	Hospital service quality → Patient Satisfaction → Behavioral Compliance	0.158	2.456	0.014

The next step analysis for measurement model assessment was discriminant validity which used the Fornell-Larcker criterion. The results of discriminant validity were shown in Table 3.

Table 3 displayed that the correlation between behavioral compliance with itself was 0.902. This correlation score was greater than the correlation value between behavioral compliance with hospital service quality (0.335) and patient satisfaction (0.509). The results of such discriminant validity also applied to the variables of patient satisfaction and hospital service quality.

The results of SEM-PLS analysis found that the R squares for variables of behavioral compliance and patient satisfaction 0.215 and 0.507 respectively. This findings could be interpreted that 21.5% of the behavioral compliance variance was simultaneously explained by patient satisfaction and hospital service quality. The analysis resulted in an  $R^2$  for patient satisfaction = 0.507 suggesting that the hospital service quality explained 50.7% of the variance in patient satisfaction.

In order to test hypotheses development, this study performed a structural model assessment with the following results:

Table 4 shows hospital service quality affected behavioral compliance with an original sample value of 0.145, T-statistic of 2.325 ( $> 1.96$ ), and P-value of 0.025 ( $< 0.05$ ). It could be interpreted that behavioral compliance was positively influenced by hospital service quality. The findings of this study could be interpreted that the better the implementation of hospital service quality in private hospitals in the city of Padang, the higher behavioral

compliance would be. This finding was supported by previous study that also found the positive effect of hospital service quality on behavioral compliance [6].

The effect of hospital service quality on patient satisfaction obtained the original sample value of 0.329, T-statistic = 3.275 ( $> 1.96$ ) and P-value of 0.001 ( $< 0.05$ ). These results could be stated that hospital service quality positively and significantly affected patient satisfaction. In other words, the better the implementation of hospital service quality in private hospitals in the city of Padang, the higher patient satisfaction. This finding was in line with previous study that empirically proved the positive effect of hospital service quality on customer satisfaction [7].

With respect to the relationship between patient satisfaction and behavioral compliance, the result was found to have the original sample of 0.482, T-statistic = 3.634 (higher than 1.96) and P value of 0.000 (small than 0.05). The finding revealed that patient satisfaction positively and significantly affected behavioral compliance. In other words, the higher patient satisfaction in private hospitals in the city of Padang, the higher behavioral compliance. This finding was supported by previous study [6] that empirically found the positive effect of patient satisfaction on behavioral compliance.

Interestingly, the result of analysis displayed that the relationship between healthcare hospital service quality and behavioral compliance (T-statistic 2.456 and P-values 0.014) was mediated by patient satisfaction. The findings could be interpreted that these findings could be interpreted that the better the implementation of hospital service quality at private hospitals in the city of Padang, the higher the level of patient satisfaction and would further increase behavioral compliance.

#### 4. CONCLUSION AND RECOMMENDATION

The study extended the literature on hospital service quality, patient satisfaction and behavioral compliance in the healthcare industry. The results of this study suggest that variables of hospital service quality and patient satisfaction are significant predictors of behavior compliance. Furthermore, the study also found that hospital service quality positively and significantly affects patient satisfaction. In addition, the result of the analysis displayed that patient satisfaction mediated hospital service quality and behavioral compliance relationship.

This study has limitation its self namely cross-sectional design. Therefore, a longitudinal study is recommended to investigate the impact of hospital service quality on patient satisfaction and behavioral compliance. Thus, next study could examine and evaluate

the role of patient satisfaction as a mediator on the relationship between service quality and behavioral compliance in hospitality marketing.

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