

Determinants of Patients' Behavioral Intention and Loyalty in Private Hospitals in Chengdu, China

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Abstract

Purpose: Behavioral intention and loyalty of patients to use the hospital service have been widely discussed to enhance profitability and sustainability in the hospitality industry. This research investigates the causal relationship between medical cost reasonableness, healthcare technicality, interpersonal behavior, service quality, patient satisfaction, behavioral intention, and patient loyalty. **Research design, data, and methodology:** This study applied a quantitative method to distribute an online questionnaire to 500 patients who use the medical service of private hospitals in Chengdu. The sample techniques are judgmental, convenience, and snowball samplings. The Item Objective Congruence (IOC) Index and the pilot test (n=50) by Cronbach's Alpha were conducted before the data collection. The data was analyzed through Confirmatory Factor Analysis (CFA) and Structural Equation Modeling (SEM). **Results:** All hypotheses are supported in this study. Medical costs, reasonableness, healthcare technicality, and interpersonal behavior significantly influence service quality. In addition, service quality has the strongest significant influence on patient satisfaction. Patient satisfaction significantly influences patient loyalty and behavioral intention. **Conclusions:** The study can contribute to hospitals and healthcare service providers to consider the significant determinants that can enhance the higher level of patient loyalty for their profitability and sustainability. Furthermore, the government can design policies and incentivized mechanisms to raise the healthcare service standard nationwide.

Keywords: Behavioral Intention, Loyalty, Satisfaction, Service Quality, Hospitals

JEL Classification Code: E44, F31, F37, G15

1. Introduction

The healthcare industry in China is the second largest globally behind the United States of America. The market growth has increased dramatically in recent years. In 2019, the market reached RMB 7.82 trillion (US\$1.1 trillion), about a 10 percent increase compared to 2018. Due to the

undeveloped healthcare infrastructure, including pharmaceuticals, medical devices, distribution, hospitals, pharmacies, and insurance, the sector accounts for only 7.12 percent of the total GDP in 2020. In contrast, the US reached 18 percent in a similar year (Wong & Zhang, 2021).

Despite COVID-19 in 2020, many countries' GDPs have dominated the total expenditure of government to be

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allocated to the healthcare sector. Nevertheless, although China's GDP has been in slow growth of 2.3 percent in 2020, the country's healthcare expenditure increased from RMB 7816.2 billion in 2019 to RMB 8730.6 billion in 2020, as shown in Figure 1.1. Consequently, the market growth is forecasted to shed investment opportunities, predominantly as the Chinese government has supported the long-term investment plan and innovation in the healthcare sector of the "14th Five Year Plan", covering 2021-2025 (Wong & Zhang, 2021).

The healthcare system in China currently needs to be more well-organized because most patients cannot access high-quality medical services. Over 90% of hospitals in China are run by the local government, where they provide basic healthcare services. Hence, high-end hospitals are in high demand but usually overcrowded (Zhang et al., 2019). Additionally, the current situation is that there is an increase in medical expenses, inadequate healthcare resources, and low service quality, which can degrade that behavioral intention and patient loyalty (Tang et al., 2008).

According to China's reform in healthcare infrastructure, the country has elevated effectiveness in resolving the hostile relationship between the use of healthcare services and the increase of patient loyalty to cope with the higher demand in private hospitals. The reform focuses on healthcare service demands responding to the various levels of hospitals and health centers (Zhang et al., 2019). Medical costs reasonableness, healthcare technicality, interpersonal behavior, service quality, patient satisfaction, behavioral intention, and patient loyalty are crucial and significant factors that need to be studied. In addition, there was insufficient attention among previous literature on the behavioral intention and patient loyalty for private hospitals in Chengdu.

This study aims to provide significant insights into patient loyalty to private healthcare institutions from the component of medical costs reasonableness, healthcare technicality, interpersonal behavior, service quality, patient satisfaction, and behavioral intention due to it has yet to be sufficiently explored. In practice, the study can contribute to hospitals and healthcare service providers to consider the significant determinants that can enhance patient loyalty for their profitability and sustainability. Furthermore, the government can design policies and incentivized mechanisms to raise the healthcare service standard nationwide.

2. Literature Review

2.1 Medical Costs Reasonableness

Medical costs reasonableness is "the costs related to medical services that are important to know whether

customers perceive costs changes to be adequate or inadequate as well as fairness that affects their product and service-choice behavior." (Ryu & Han, 2010). Patients usually evaluate the medical costs as a cue in the context of medication, staff manner, and facilities of hospitals (Varki & Colgate, 2001). Han and Kim (2009) further extended that medical costs are "an individual's evaluation of the reasonableness of the costs or price for services compared to costs charged by competing firms." Cost reasonableness in healthcare has been widely approved to impact service quality significantly (Han & Hyun, 2015). Han and Kim (2009) elaborated that the perception of patients toward costs is complicated as medical tourists are diverse. Thus, patients' decision-making processes differ from their countries' backgrounds and purchasing power. In medical tourist studies, travelers from less developed and developed countries are different in affordability. Thus, reasonable prices can be varied (Crozier & Baylis, 2010). Based on previous studies, this study postulates that:

H1: Medical costs reasonableness has a significant influence on service quality.

2.2 Healthcare Technicality

Healthcare technicality "is a procedure that requires special techniques, expertise, skills, and knowledge and can be defined as the application of organized knowledge and skills in the form of devices, procedures, and systems developed to solve a health problem" (Rahman, 2019). It is also stated that healthcare technicality is "the application of the science and technology of medical care and the other healthcare sciences, to the management of personal health problems" (Donabedian, 2005). In the research, the healthcare technicality is explained as "the hospital services quality perception of customers regarding the technical level of communication which ensures the system reliability or quality equipment, system availability, privacy, and efficiency." Healthcare technicality and service quality are significantly related to medical attributes among medical tourists. The delivery of medical care service is perceived by experienced patients, whereas new patients would consider it through word-of-mouth, recommendations, and advertising. Blumenthal (2009) mentioned that healthcare information technology clearly illustrates the perceived service quality among patients. Following the above discussions, this study hypothesizes that:

H2: Healthcare technicality has a significant influence on service quality.

2.3 Interpersonal Behavior

Interpersonal behavior refers to "the caring and mindfulness of the medical personnel/staff towards the

patients as the customers. It is also the study of one's perception, knowledge, communication skills, relationship, perceived services quality and motivation, and how these affect one's behavior to the self and with others" (Gagnon et al., 2003). Interpersonal behavior of hospital personnel refers to "physician's thoughts, patient-doctor relationship and caring communication with the patients regarding respect, concern, friendliness, and courtesy that never fail to invoke a feeling of confidence in the patients." (Chino et al., 2014). Stanworth et al. (2014) claimed that service quality is nurtured by interpersonal service in Chinese settings. Furthermore, it was reported that the interpersonal behavior of healthcare professionals could surely determine service quality in Chinese culture. Based on Rahman (2019), healthcare technicality is "the technical level of communication which ensures the system reliability or quality equipment, system availability, privacy, and efficiency" and significantly drives service quality. Therefore, this study hypothesizes a significant relationship between interpersonal behavior and service quality, as stated below:

H3: Interpersonal behavior has a significant influence on service quality.

2.4 Service Quality

Service quality is "the process of evaluating the products and services offered by the particular company. In this study, the service quality involves core-product and service-product performance of hospitals that can help patients to achieve health and treatment goals" (Han & Hyun, 2015). Price et al. (1995) claimed that product and service quality is examined through the performances received from transactions and experience with product or service providers. The relationship between hospital service quality and patient satisfaction has been evidenced in many works of literature (Cham et al., 2016; Fatima et al., 2018; Naik Jandavath & Byram, 2016; Rahman, 2019). The perceptions of patients on service quality can be measured by their satisfaction and behavioral intentions (Reidenbach & Sandifer-Smallwood, 1990).

Improving medical care service quality is crucial to identifying patient satisfaction, which leads to competitive advantages and business performance (Parasuraman et al., 1985). Naik Jandavath and Byram (2016) presented that patient satisfaction should be requisite to evaluating service quality. Service quality is a checkpoint of patient satisfaction in the healthcare service context (Gotlieb et al., 1994). In healthcare, patients' behavioral intention is "a signal of whether customers will remain or exit the relationship with the service provider" (Naik Jandavath & Byram, 2016). Seth et al. (2005) supported the direct effect of service quality on customers' behavioral intentions. Thus, two hypotheses of this research are indicated:

H4: Service quality has a significant influence on patient satisfaction.

H5: Service quality has a significant influence on behavioral intention.

2.5 Patient Satisfaction

Patient satisfaction is "an assessment of the overall experience of consumers towards products and services of a company. In this context, patients evaluate their overall consumption experiences satisfactorily, and their satisfaction levels to repurchase likely will increase" (Jiang & Rosenbloom, 2005). Prahalad and Krishnan (1999) defined consumer satisfaction as a key performance indicator to determine consumer needs and expectations. Most firms must evaluate and manage customer satisfaction as firm performance. Patient satisfaction affects the behavioral intention to revisit the hospital (Naik Jandavath & Byram, 2016). The findings of Kessler and Mylod (2011) evidenced that patient satisfaction can drive the propensity of behavioral intention.

The indicator of satisfaction is the contentment of both in-patient and out-patient with a daycare or hospitalization experience. Service quality contributes to patient satisfaction and loyalty (Chahal & Kumari, 2010; Gaur et al., 2011). In this sense, behavioral intention is an influential notion in most cases determining patients' satisfaction with a hospital. Loyalty and satisfaction are significantly related and are built upon word of mouth and referrals (Cronin & Taylor, 1992; Zeithaml et al., 1996). Satisfaction is the major consideration of customers to build loyalty (Dick & Basu, 1994). Fatima et al. (2018) linked the significant relationship between patient satisfaction and loyalty. More examinations clarified that satisfaction directly impacts loyalty (Chahal & Mehta, 2013; Cronin et al., 2000; Naidu, 2009). Thus, hypotheses are determined per the followings:

H6: Patient satisfaction has a significant influence on behavioral intention.

H7: Patient satisfaction has a significant influence on patient loyalty.

2.6 Behavioral Intention

Behavioral intention is "a signal of whether customers will remain or exit the relationship with the service provider which include favorable and unfavorable dimensions" (Naik Jandavath & Byram, 2016). Good intentions mean "the customers will convey a positive word-of-mouth, repurchase intention and loyalty, whereas unfavorable behavioral intention tends to "spread a negative word-of-mouth and conveys their negative experiences to other customers and intention to switch to competitors" (Ladhari, 2008). This study determines behavioral intention as a

willingness to use healthcare and medical services of private hospitals. Tseng et al. (2022) posited that “human behavior is rational and that individuals can fully control their behavior by will.” Behavioral intention states an individual’s attitude and can be both positive and negative. An individual’s beliefs can be a tendency to perform specific behavior, which demonstrates behavioral intention (Tseng et al., 2022). Alanazi and Soh (2019) classified that any new proposed technology can establish behavioral intention when users understand how to use it and its benefits. On the other hand, behavioral intention can be resistance or acceptance.

2.7 Patient Loyalty

Patient loyalty is “the confirmed probability of connecting in a specific conduct and can be proposed that patient loyalty can be characterized in two different ways as an attitude (state of mind) and the behavior (action)” (Fatima et al., 2018). Fornier (1994) denoted that a personal feeling connects to the available connection with a product or service, which is associated with attitudinal loyalty. Fatima et al. (2018) also signified that patient loyalty is “the frequency of utilization of service when the patient has a positive attitude toward the service or hospital providing the service.” Many studies put forward the association of a person’s intention to repurchase the service in the future with the same brand or company as loyalty embedded trust and top of mind (Sadeghi et al., 2017). Loyalty has been vastly focused on in the marketing literature. For healthcare services, patient satisfaction could enhance brand image and competitive advantage (Chahal & Mehta, 2013). Therefore, patient loyalty is a checkpoint of the current company’s market positioning, which can be executed and delivered through a high standard of service quality (Anbori et al., 2010).

3. Research Methods and Materials

3.1 Research Framework

The conceptual framework of this study incorporates medical costs reasonableness, healthcare technicality, interpersonal behavior, service quality, patient satisfaction, and behavioral intention. Three previous studies were used to construct the conceptual model of the study, including Rahman (2019), Naik Jandavath and Byram (2016), and Fatima et al. (2018).

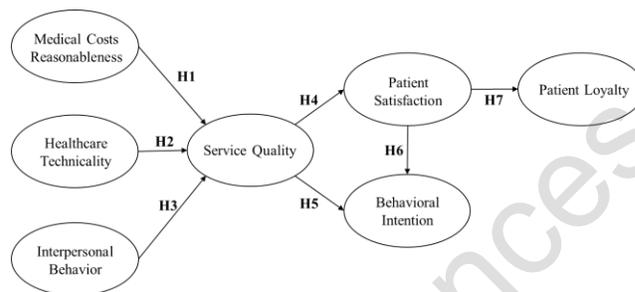


Figure 1: Conceptual Framework

H1: Medical costs reasonableness has a significant influence on service quality.

H2: Healthcare technicality a significant influence on service quality.

H3: Interpersonal behavior has a significant influence on service quality.

H4: Service quality has a significant influence on patient satisfaction.

H5: Service quality has a significant influence on behavioral intention.

H6: Patient satisfaction has a significant influence on behavioral intention.

H7: Patient satisfaction has a significant influence on patient loyalty.

3.2 Research Methodology

This research investigates the causal relationship between medical cost reasonableness, healthcare technicality, interpersonal behavior, service quality, patient satisfaction, behavioral intention, and patient loyalty of 500 patients in the private hospitals of Chengdu, Sichuan Province, China. Data screening, normality tests, and descriptive statistics were accounted for. The research instruments are those scale items that were studied and used to input a questionnaire for the data collection (Hair et al., 2013). Most measurement scales used are Likert Scale by Likert (1932), ranging from one to ten. This research properly designed a series of questions into three parts, incorporating screening questions, measuring variables with a five-point Likert scale, and demographic characteristics. Afterward, the data analysis was made through Confirmatory Factor Analysis (CFA) and Structural Equation Modeling (SEM).

3.3 Validity and Reliability

A questionnaire has been commonly used as a data collection tool in most research. Therefore, the series of questions are required to be reliable. Accordingly, the validity and reliability of the survey/questionnaire will be measured (Bartlett et al., 2001). The Item Objective

Congruence (IOC) Index and the pilot test (n=50) by Cronbach's Alpha were conducted before the data collection. To assess content validity, this study employed the Index of Item-Objective Congruence (IOC), which validated the content by experts (Hambleton et al., 1978). Accordingly, three experts or healthcare professionals who titled Ph.D. or in high-level management scored in the range of 1 = "clearly measuring," -1 = "clearly not measuring," or 0 = "unclear measuring" The IOC results proved all 26 items have been proved at the score 0.6 and over (Turner & Carlson, 2003).

This study conducted pilot testing of 50 participants to be assessed the reliability of Cronbach's Alpha Cronbach's (α) coefficient value. The rule of thumb is to validate internal consistency in this study at 0.6 or above (Straub et al., 2004). The results verified that all variables were acceptable, including medical costs reasonableness ($\alpha = 0.655$), healthcare technicality ($\alpha = 0.809$), interpersonal behavior ($\alpha = 0.731$), service quality ($\alpha = 0.741$), patient satisfaction ($\alpha = 0.644$), behavioral intention ($\alpha = 0.880$), and patient loyalty ($\alpha = 0.886$).

3.4 Population and Sample Size

Hair et al. (2010) denoted that the target population in most studies is "a group of participants who share specific or common characteristics, interest and experience in the relevance of research topic." Therefore, this study identifies the target population as 500 patients in the private hospitals of Chengdu, Sichuan Province, China, Yuechi Chuandong Hospital, Fushuen Western Regional Hospital, and Aidi Ophthalmology Hospital. According to Soper (2022), the online statistical software suggested that the recommended sample size is 425. To ensure the efficiency of the data analysis, this study aims to collect 500 participants.

3.5 Sampling Technique

The sample techniques are judgmental, convenience, and snowball samplings. Judgmental sampling is to select the target population of 18 years old and above in the private hospitals of Chengdu, Sichuan Province, China, Yuechi Chuandong Hospital, Fushuen Western Regional Hospital, and Aidi Ophthalmology Hospital. Convenience sampling is to distribute an online questionnaire to patients who use the medical service of private hospitals in Chengdu from time to time. Snowball sampling is to encourage the referral to friends and family.

4. Results and Discussion

4.1 Demographic Information

The demographic profile of 500 respondents shows that males are 40.8 percent (204), females are 48.6 percent (243), and unspecified 10.6 percent (53). Most respondents are between 35 and 45 years old, 42 percent, whereas the smallest group is those aged between 18 to 25 years old. The respondents have a Bachelor's Degree of 74.6 percent (373), whereas a Doctorate is only 2.6 percent (13). For occupation, the group corporate employee takes the highest percentage of 31.8.

Table 1: Demographic Results

Demographic and General Data (n=500)		Frequency	Percentage
Gender	Male	204	40.8
	Female	243	48.6
	Unspecified	53	10.6
Age	18 -25 Years Old	75	15.0
	26-35 Years Old	87	17.4
	35-45 Years Old	210	42.0
	45 Years Old or over	128	25.6
Education	Below Bachelor's Degree	45	9.0
	Bachelor's Degree	373	74.6
	Master's Degree	69	13.8
	Doctorate Degree	13	2.6
Occupation	Student	56	11.2
	Government/State Employee	128	25.6
	Corporate Employee	159	31.8
	Self-Employed/ Entrepreneur	111	22.2
	Unemployed	33	6.6
	Retire	10	2.0
	Others	3	0.6

4.2 Confirmatory Factor Analysis (CFA)

CFA offers the means to establish the measurement part of the model or "measurement model," where the relationship between the observed and latent variables can be examined (Anderson & Gerbing, 1988). In Table 2, CFA can be proven by factor loading should be greater than 0.5 (Fornell & Larcker, 1981), the Cronbach Alpha coefficient value at 0.6 or above (Straub et al., 2004), and the Composite Reliability (CR) at 0.7 or above. In addition, Average Variance Extracted (AVE) is higher than the cut-off point of 0.4. is approved when CR is equal to or above 0.6.

Table 2: Confirmatory Factor Analysis Result, Composite Reliability (CR) and Average Variance Extracted (AVE)

Variables	Source of Questionnaire (Measurement Indicator)	No. of Item	Cronbach's Alpha	Factors Loading	CR	AVE
1. Medical Costs Reasonableness (MCR)	(Rahman, 2019)	3	0.769	0.714-0.748	0.770	0.527
2. Healthcare Technicality (HT)	(Rahman, 2019)	4	0.802	0.641-0.794	0.802	0.505
3. Interpersonal Behavior (IB)	(Rahman, 2019)	4	0.792	0.632-0.772	0.796	0.497
4. Service Quality (SQ)	(Rahman, 2019)	4	0.773	0.654-0.719	0.776	0.465
5. Patient Satisfaction (PS)	(Cham et al., 2016)	4	0.762	0.633-0.695	0.764	0.447
6. Behavioral Intention (BI)	(Cham et al., 2016)	3	0.884	0.832-0.874	0.885	0.719
7. Patient Loyalty (PL)	(Sumaedi et al., 2014).	4	0.805	0.666-0.755	0.806	0.510

The measurement and structural model can be estimated in the goodness of fit indices (Hair et al., 2006). Accordingly, this research used fit measures. This study approved the measurement model fit without any adjustment, including CMIN/DF = 1.502, GFI = 0.941, AGFI = 0.925, NFI = 0.922, CFI = 0.972, TLI = 0.968, and RMSEA = 0.032, as demonstrated in Table 3.

Table 3: Goodness of Fit for Measurement Model

Index	Acceptable Values	Statistical Values
CMIN/DF	< 3.00 (Hair et al., 2006)	418.579/278 = 1.502
GFI	≥ 0.90 (Hair et al., 2006)	0.941
AGFI	≥ 0.90 (Hair et al., 2006)	0.925
NFI	≥ 0.90 (Arbuckle, 1995)	0.922
CFI	≥ 0.90 (Hair et al., 2006)	0.972
TLI	≥ 0.90 (Hair et al., 2006)	0.968
RMSEA	< 0.05 (Browne & Cudeck, 1993)	0.032
Model summary		Acceptable Model Fit

Remark: CMIN/DF = The ratio of the chi-square value to degree of freedom, GFI = Goodness-of-fit index, AGFI = Adjusted goodness-of-fit index, NFI = Normed fit index, CFI = Comparative fit index, TLI = Tucker-Lewis index, and RMSEA = Root mean square error of approximation

According to Fornell and Larcker (1981), discriminant validity was evaluated by computing the square root of each AVE. Table 4 shows that the value of discriminant validity is larger than all inter-construct/factor correlations. Hence, the discriminant validity is supportive. Additionally, the factor correlations did not surpass 0.80. As a result, the problem of multicollinearity is not issued (Studenmund, 1992).

Table 4: Discriminant Validity

	SQ	MCR	HT	IB	BI	PS	PL
SQ	0.682						
MCR	0.645	0.726					
HT	0.287	0.253	0.711				
IB	0.660	0.540	0.222	0.705			
BI	0.587	0.538	0.312	0.547	0.848		
PS	0.660	0.505	0.253	0.596	0.594	0.669	
PL	0.308	0.199	0.132	0.411	0.355	0.521	0.714

Note: The diagonally listed value is the AVE square roots of the variables

4.3 Structural Equation Model (SEM)

The causal relations of the constructs among themselves can be determined in the structural part of the SEM or “structural model” (Ko & Stewart, 2002). In Table 5, the results of NFI in the structural model are an unacceptable fit. Therefore, the after model is adjusted to approve the fit degree, resulting in CMIN/DF = 1.834, GFI = 0.927, AGFI = 0.911, NFI = 0.901, CFI = 0.952, TLI = 0.946, and RMSEA = 0.041.

Table 5: Goodness of Fit for Structural Model

Index	Acceptable Values	Statistical Values (Before)	Statistical Values (After)
CMIN/DF	< 3.00 (Hair et al., 2006)	580.325/292 = 1.987	530.007/289 = 1.834
GFI	≥ 0.90 (Hair et al., 2006)	0.919	0.927
AGFI	≥ 0.90 (Hair et al., 2006)	0.903	0.911
NFI	≥ 0.90 (Arbuckle, 1995)	0.892	0.901
CFI	≥ 0.90 (Hair et al., 2006)	0.943	0.952
TLI	≥ 0.90 (Hair et al., 2006)	0.936	0.946
RMSEA	< 0.05 (Browne & Cudeck, 1993)	0.044	0.041
Model summary		Unacceptable Model Fit	Acceptable Model Fit

Remark: CMIN/DF = The ratio of the chi-square value to degree of freedom, GFI = Goodness-of-fit index, AGFI = Adjusted goodness-of-fit index, NFI = Normed fit index, CFI = Comparative fit index, TLI = Tucker-Lewis index, and RMSEA = Root mean square error of approximation

4.4 Research Hypothesis Testing Result

The research hypotheses testing results are obtained from the measurement of standardized path coefficient value (β), t-value, and significant effect at p-value<0.05. The results in Table 6 show that all hypotheses are supported in this study.

Table 6: Hypothesis Results of the Structural Equation Modeling

Hypothesis	(β)	t-value	Result
H1: MCR→SQ	0.462	7.939*	Supported
H2: HT→SQ	0.178	3.792*	Supported
H3: IB→SQ	0.626	8.926*	Supported
H4: SQ→PS	0.694	8.468*	Supported
H5: SQ→BI	0.458	5.773*	Supported
H6: PS→BI	0.349	4.432*	Supported
H7: PS→PL	0.498	7.482*	Supported

Note: * $p < 0.05$

According to Table 6, the research hypotheses testing results are summarized as follows:

H1 reveals that medical cost reasonableness significantly influences service quality, resulting in the standardized path coefficient value of 0.462 (t-value = 7.939). The results and in the similar views of most research. It explained that medical costs are relevant to the patient's evaluation of the reasonable price compared to the provided service quality by the hospital (Crozier & Baylis, 2010; Han & Kim, 2009).

For **H2**, the relationship between healthcare technicality and service quality is supportive, reflecting a standardized path coefficient value of 0.178 (t-value = 3.792). Healthcare technicality, as the application of the science and technology of medical care and other healthcare sciences, can greatly contribute to service quality (Blumenthal, 2009; Donabedian, 2005; Rahman, 2019).

H3 implies that interpersonal behavior significantly influences service quality, showing the standardized path coefficient of 0.626 (t-value = 8.926). The interpersonal behavior of hospital personnel provokes the patients' perception of service quality (Chino et al., 2014; Stanworth et al., 2014).

H4 proves the significant impact of service quality on patient satisfaction, representing a standardized path coefficient value of 0.694 (t-value = 8.468). Service quality is a fundamental component of healthcare service that can predict patient satisfaction and leads to competitive advantages and business performance (Naik Jandavath & Byram, 2016; Parasuraman et al., 1985)

H5 reports that service quality significantly influences behavioral intention, presenting a standardized path coefficient of 0.458 and a t-value of 5.773. The results support the previous literature on behavioral intention influencing patients' satisfaction with a hospital. (Cronin & Taylor, 1992; Zeithaml et al., 1996).

H6 confirms that patient satisfaction significantly influences behavioral intention with a standardized path coefficient of 0.349 (t-value = 4.432). Patient satisfaction affects the behavioral intention to revisit the hospital (Kessler & Mylod, 2011; Naik Jandavath & Byram, 2016).

Finally, **H7** signifies that patient satisfaction significantly influences patient loyalty with a standardized path coefficient value of 0.498 (t-value = 7.482). Loyalty and satisfaction are significantly related because satisfaction is customers' major consideration in building loyalty (Dick & Basu, 1994; Fatima et al., 2018).

5. Conclusions and Recommendation

5.1 Conclusion and Discussion

This research investigates the causal relationship between medical cost reasonableness, healthcare technicality, interpersonal behavior, service quality, patient satisfaction, behavioral intention, and patient loyalty. Based on the data collection from 500 patients in the private hospitals of Chengdu, Sichuan Province, China, CFA and SEM confirmed the results from the measure of factor loadings, validity, reliability, and goodness of fit. The results show that all hypotheses are supported in this study. Medical costs, reasonableness, healthcare technicality, and interpersonal behavior significantly influence service quality. In addition, service quality has the strongest significant influence on patient satisfaction. Patient satisfaction significantly influences patient loyalty and behavioral intention.

From the findings, service quality has the strongest significant influence on patient satisfaction. Han and Hyun (2015) pointed out that service quality is the process of patients evaluating the products and services offered by the healthcare providers is essential to determine their level of satisfaction. Price et al. (1995) added that service quality is a key performance indicator for measuring the satisfaction of patients. Second, medical costs reasonableness, healthcare technicality, and interpersonal behavior significantly influence service quality. Reasonable cost is a give and take in the view of the patients. Crozier and Baylis (2010) stated that patients' decision-making processes are subjected to reasonable prices. Blumenthal (2009) also indicated that healthcare technicality clearly illustrates the perceived service quality among patients. Furthermore, the interpersonal behavior of hospital personnel as caring and clear communication with the patients can invoke a perception of service quality (Chino et al., 2014).

The key finding is that patient satisfaction significantly influences loyalty and behavioral intention. Patient satisfaction is an assessment of their overall experience services of a hospital which can drive both behavioral intentions to revisit and satisfaction (Jiang & Rosenbloom, 2005). Patient loyalty is a checkpoint of healthcare service providers, which leads to monetary benefits from patients' spending in their visits. Therefore, hospitals seek to enhance

patients' behavioral intentions and satisfaction (Anbori et al., 2010). In conclusion, there are different views of factors affecting behavioral intention and patient loyalty, which can be extended.

5.2 Recommendation

According to Deloitte (n.d.), the power of both industrial and institutional capital has been leveraged to accelerate the market expansion of private hospitals. The investment significantly improves "management capabilities, technical expertise, service quality, and scale-oriented operation." However, the fast-growing market of private hospitals creates some potential risks. Hence, private hospitals consider the political, economic, and competitive challenges to ensure a suitable strategic plan, which can be elaborated in four key areas premium healthcare service, chain specialty hospitals, high-standard general hospitals, and high-service quality healthcare.

In practice, the study can contribute to hospitals and healthcare service providers to consider the significant determinants that can enhance patient loyalty for their profitability and sustainability. Furthermore, the government can design policies and incentivized mechanisms to raise the healthcare service standard nationwide. Based on the findings, this study addressed the importance of factors elevating service quality, including medical costs, reasonableness, healthcare technicality, and interpersonal behavior. The healthcare service provider should provide a strategic plan to improve cost, personnel technical, and service skills to achieve a high standard of service.

Such a butterfly effect of service quality can drive patient satisfaction and loyalty despite the fact that most patients intend to revisit the same hospital where it diagnoses their symptom and provide them with a health recovery plan. The switching decision tends to be low when compared to other service industries. Patient prefers to visit the same doctor and hospital where it has their health records. Nevertheless, bad service quality can harm the brand reputation and patient loyalty. In order to enhance patient satisfaction and loyalty, it is necessary to improve the influential factors determined in this study.

5.3 Limitation and Further Study

Several limitations of this study can be guided for the better development of future research. First, the data was collected from a specific group of patients experiencing the service of selected private hospitals in Chengdu. The different kinds of the hospital (e.g., public hospitals) would have an impact on the significant results among variables. Second, more variables should be examined, such as

perceived value and trust. Last, this study merely employed a quantitative methodology. The qualitative approach can be extended to enhance the analysis results and insights of participants.

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