Key Influencers of Satisfaction and Behavioral Intention of In-patients in Chengdu, China

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Abstract

Purpose: Understanding the evaluation of hospital service quality by in-patients would improve the existing medical system's results and service quality. Therefore, this study aims to evaluate key influencers of satisfaction and behavioral intention of In-patients in Chengdu, China. **Research design, data, and methodology:** The quantitative study emphasizes the data collection from 500 in-patients undergoing treatment in 20 public and private hospitals in Chengdu, China, in 2022. In addition, the sampling procedure of this study was divided into three steps: judgment sampling, quota sampling, and convenience sampling. Confirmatory factor analysis (CFA) was used to assess the convergent and discriminant validity of the measurement model, and the Structural equation model (SEM) was applied to test the effect of measured variables and conclude the research. **Results:** Patient satisfaction had a significant impact on behavioral intention. Moreover, reliability was the strongest factor that significantly impacted patient satisfaction, followed by tangibles, responsiveness, and image. However, empathy and assurance did not significantly impact patient satisfaction. **Conclusions:** There were many factors affecting patient satisfaction, involving hospitals, medical staff, patients themselves, and other aspects. Through the measurement and evaluation of patient satisfaction, the hospital can understand the expectations of in-patients and improve competitiveness.

Keywords: Service Quality, Image, Patient Satisfaction, Behavioral Intention, In-Patient

JEL Classification Code: E44, F31, F37, G15

1. Introduction

With the progress of society and the improvement of people's living standards, people's quality and civilization have improved significantly. Customer consumption has changed from "rational consumption" to "perceptual consumption" (Miao et al., 2022). People have not only considered the survival problems and the most basic needs of subsistence but also psychological and emotional satisfaction and enjoyment (Dash et al., 2021). This change in the characteristics of patients' needs requires medical service organizations to establish new service concepts and change the medical service mode. Therefore, to meet and retain patients, medical service institutions to improve service quality have become increasingly important (Guliyeva et al., 2022). High-quality service delivery is critical to maintaining high-performance levels in healthcare

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(Kashkoli et al., 2017). Understanding the evaluation of hospital service quality by in-patients would improve the existing medical system's results and service quality. The researchers insisted that satisfaction is a key predictor of patients' intentional behavior. In different countries and with different medical services, satisfied patients were more likely to return to the same medical institution and recommend them to family and friends (Choi et al., 2004).

China's health service industry has recently experienced unprecedented challenges and changes. The types of health services show a diversified and multi-level trend, and health service providers face fierce competition (Zhang et al., 2007). Currently, many health service institutions only pay attention to economic benefits, low management efficiency, and limited understanding of service quality (Deng et al., 2012). These problems show that there are certain defects in China's health services, which are not conducive to the purpose of hospitals to treat patients and save people and serve society, but also damage the image of health service institutions and weaken the market competitiveness of medical service institutions (Chen et al., 2022). This urgently requires health service institutions to strengthen health service management and improve the quality of medical services. Therefore, this study attempted to explore the factors that impact patient satisfaction and behavior intention, which would help medical service institutions understand how to improve management and patient satisfaction and behavior intention, finally achieving sustainable development.

2. Literature Review

2.1 Responsiveness

Javed and Liu (2018) defined responsiveness as a barrier-free service, which means the patient does not need to wait for a long time, and the service provider is willing to listen to the patient's demands. According to Boshoff and Gray (2004), responsiveness was the quick administrative treatment scheme and efficient and sincere problem-solving ability provided by the hospital for patients. Rust and Zahorik (1993) defined responsiveness as the attitude of the medical system to provide timely services and be willing to help patients. Kitapci et al. (2014) thought that responsiveness was a willingness expressed by medical service providers, which referred to the attitude of providing help and services when customers encounter difficulties.

Kashkoli et al. (2017) confirmed that hospital responsiveness could positively affect patient satisfaction. Naidu (2009) also pointed out in their research that hospital responsiveness could significantly influence patient satisfaction with a medical service provider, leading to improved service quality. Williams (1994) noted that patient

satisfaction could promote health by improving responsiveness. In addition, Ratnawati et al. (2020) investigated the relationship between hospital responsiveness and patient satisfaction of Muslim patients in Islamic hospitals and stated that responsiveness could significantly affect patient satisfaction. Malhotra and Do's (2013)' s research revealed that hospital responsiveness could significantly impact patient satisfaction. It was confirmed by Andaleeb (2001), who found a significant relationship between responsiveness and patient satisfaction. Similarly, Meesala and Paul (2018) believed there was a positive effect of responsiveness toward patient satisfaction. Based on the description above, the research made the following hypothesis:

H1: Responsiveness has a significant impact on patient satisfaction.

2.2 Empathy

Rust and Zahorik (1993) thought that empathy was great patience and good willingness of the medical staff to communicate and understand the customer's needs. It was confirmed by Tucker and Adams (2012), who declared that empathy was a kind of invisible care and empathy of hospital service personnel for patients. It was also considered an important symbol of the hospital's "people-centered" service, which mainly included three methodological factors: accessibility, communicability, and active understanding of patient demands (Dyck, 1996). While Javed and Liu (2018) pointed out that empathy was the sympathy and care of the medical service provider to the patient.

Fottler et al. (2013) concluded that empathy was positively related to patient satisfaction. Ratnawati et al. (2020) revealed in their study that empathy could lead to positive patient satisfaction among Muslim patients in Islamic hospitals. Andaleeb et al. (2007) 's research found that enough empathy leads to increased patient satisfaction. This was also confirmed by Kitapci et al. (2014), who reported that empathy strongly affected customer satisfaction. Cleary and Mcneil (1988) held that empathy was the key predictor of how the patient would assess the service received. If medical service providers made service more "empathy," it would lead to higher levels of patient satisfaction. Rafiei et al. (2017) believed that medical service providers with high empathy might show a closer relationship with patients, which helped prompt the quality of medical service and patient satisfaction. According to Cohen (1996), many studies on customer loyalty focused on exploring the relationship between empathy and customer satisfaction. In other words, the correlation between empathy and customer satisfaction would strongly impact customer loyalty. Abramowitz et al. (1987) found that the main reason for patients' dissatisfaction was the lack of empathy with

medical service providers. Strengthening the communication between them would significantly prompt patients' satisfaction. By reviewing previous studies, this research proposed the hypothesis that:

H2: Empathy has a significant impact on patient satisfaction.

2.3 Assurance

Ramsaran-Fowdar (2008) saw assurance as the professional ability to help patients build rehabilitation confidence, increasing a sense of security and trust. In Nekoei-Moghadam and Amiresmaili (2011)' research, assurance was considered to represent the efficiency, reputation, expertise, and attitude of healthcare workers and their ability to give patients the confidence to return to health. It was also confirmed by Boshoff and Gray (2004), who declared that assurance represented the hospital's care for patients, its brand, and the sense of security and trust it provided. Moreover, Rust and Zahorik (1993) believed that assurance was the comprehensive embodiment of the medical service team's professional knowledge, skills, and reputation.

Andaleeb (2001) used the SERVQUAL model to evaluate patient satisfaction with provided services in hospitals and found that assurance had the greatest impact on patient satisfaction. This was consistent with the study of Kitapci et al. (2014), who pointed out that assurance played a key influential factor in patient satisfaction. Another research from Javed and Liu (2018) on service quality for patient satisfaction verified that the assurance dimension influenced patient satisfaction. Chahal and Kumari (2010) also revealed a positive relationship between assurance and patient satisfaction. In Boshoff and Gray (2004)'s study, assurance would not only enhance patient satisfaction but would also enhance patient Loyalty. Lafond (1995) found out that if patients lacked a sense of assurance, their satisfaction would be reduced. This was also confirmed by Lee (2017), who reported that many factors would affect patient satisfaction. Among them, it was very important for medical service institutions to give patients enough sense of assurance. Suppose patients felt that the higher the level of sense of assurance, the higher their satisfaction would be. Akter et al. (2013) declared that it was very important for most patients to put forward a sense of assurance because the sense of assurance would affect their satisfaction with the quality of medical and healthcare services to a certain extent, and they might decide to continue or stop the medical and health care services. In conclusion, the following hypothesis was developed:

H3: Assurance has a significant impact on patient satisfaction.

2.4 Reliability

Belaid et al. (2015) considered reliable service because patients were readily available and trustworthy. In contrast, Herstein and Gamliel (2006) defined *reliability* as the rationality of the arrangement of medical services and the accuracy of the doctor's diagnosis. This was also confirmed by Rust and Zahorik (1993), who believed that the important dimensions of reliability were the standardization and efficiency of medical processes and the reliability and medical effect of a medical tool. Moreover, Kitapci et al. (2014) argue that it was the ability to carry out the promised service fairly, equitably, dependably, and accurately.

According to Javed and Liu (2018), reliability is crucial in achieving patient satisfaction with health services. Ratnawati et al. (2020) also confirmed that reliability could lead to positive patient satisfaction among Muslim patients in Islamic hospitals. This was in line with the study of Meesala and Paul (2018), which stated that reliability could positively affect patient satisfaction. Besides, Rehaman and Husnain (2018) also investigated the relationship between reliability and patient satisfaction and confirmed that reliability could influence patient satisfaction. Patient satisfaction levels were estimated using a Consumer Satisfaction Index model, and the discipline factor, encompassing "reliability," significantly impacted patient satisfaction (Itumalla, 2012).

Similarly, a significant relationship between reliability and patient satisfaction was confirmed by Lee (2017). Reliability drove patient satisfaction, according to the report of Rafiei et al. (2017). In addition, Boshoff and Gray (2004) found that reliability, directly and indirectly, affects patient satisfaction. In light of the previous studies, this research proposed the hypothesis that:

H4: Reliability has a significant impact on patient satisfaction.

2.5 Tangible

Boshoff and Gray (2004) considered tangibles to be the hospital's hygienic level, including the room's cleanliness, the regularity of facility display, the amenity of decorations, and the clothes of hospital staff. Dagger and Sweeney's (2007) research confirmed that tangibles reflected the visible physical environment. It was supported by Javed and Liu (2018), who believed that tangibles were all visual things, including physical facilities, equipment, and the appearance of doctors, nurses, and auxiliary personnel. According to Belaid et al. (2015), tangibles were referred to the availability of equipment, facilities, and personnel, representing the health of the medical environment and new modern medical technology.

Ampaw et al. (2020) pointed out that tangibility and patient satisfaction are associated significantly. In Andaleeb et al. (2007)' s research, it was confirmed that tangible had a significant impact on in-patient satisfaction. In addition, Mahmud et al. (2021) used a four-dimensional instrument of the HEALTHQUAL model for estimating medical tourists' overall satisfaction. They found out that all dimensions, including tangibility, had a positive level of significance on it. Besides, Karassavidou et al. (2009) believed that patients preferred to evaluate the tangible because it was difficult to evaluate the outcome of medical care. Therefore, this explains that tangible had a significant impact on satisfaction.

Moreover, a novel synthetic Grey Incidence Analysis model was developed for estimating patient satisfaction by Javed and Liu (2018), who demonstrated that tangibility played an important role in shaping patient satisfaction in the public and private sectors, respectively. Kitapci et al. (2014) confirmed a strong correlation between tangibles and patient satisfaction. Furthermore, Li et al. (2011) pointed out that the key factor that impacted patient satisfaction was tangible in terms of equipment and facilities. Thus, the following hypothesis was developed for the study:

H5: Tangible has a significant impact on patient satisfaction.

2.6 Image

Padma et al. (2010) believed that hospital image was a combination of patients' perceptions and attitudes toward medical institutions. Customers would turn their memories and experiences of medical treatment into spiritual impressions; thus, hospital image was a comprehensive evaluation to access medical care's whole process and outcome (Keller, 1993). While, Allil et al. (2016) believed that image was composed of the perception of facilities in patients' memory, which was affected not only by physical aspects but also by psychological aspects, such as the feeling and attitudes towards the organization. In addition, Coutinho et al. (2019) also confirmed that the image was the main aspect influencing patients' satisfaction.

Khodadad Hosseini and Behboudi (2017) reported that image was one of the most useful items that had the greatest impact on patient satisfaction and on benefiting from healthcare services. Similarly, a significant relationship between image and patient satisfaction was confirmed (Gurses & Kilic, 2013). In addition, Jandavath and Byram (2016) noted that image was crucial for patient satisfaction because most patients cannot assess the ability of medical technology. Another study of images specialized in urgent care was carried out by Qin et al. (2014), who declared a positive influence of an image on patient satisfaction. Dayan et al. (2022) and Wang et al. (2013) also investigated the relationship between hospital image and patient satisfaction and pointed out that hospital image positively affected

patient satisfaction. This idea was also confirmed by Ener (2014), who verified that hospital image and patient satisfaction are associated significantly. Besides, Padma et al. (2010) confirmed that image was a significant predictor of patient satisfaction. In light of the research objectives, this research made the hypothesis that:

H6: Image has a significant impact on patient satisfaction.

2.7 Patient Satisfaction

Naidu (2009) considered that patient satisfaction was a function of service performance and expectations. Rust and Zahorik (1993) noted that satisfaction was a special attitude representing patients' preference for medical services. Fitzpatrick and Hopkins (1983) represented patient satisfaction as the pessimistic or optimistic psychological state of patients or their accompanying personnel on medical services. It was supported by Kessler and Mylod (2011), who defined satisfaction as patients' positive evaluation of the services provided by medical service institutions. In addition, Amin and Zahora Nasharuddin (2013) considered patient satisfaction to be the emotional response to the difference between patients' expectations and perceptions.

Zarei et al. (2014) reported that patient satisfaction significantly affected Behavioral Intention. If a patient is highly satisfied with the services, return to the hospital. Hennig-Thurau and Thorsten (2001) pointed out that patients often evaluated their satisfaction through normative standards on different aspects of medical services, which affected behavioral intention. According to Chaniotakis and Lymperopoulos (2009) and Kim et al. (2008), and Wu (2011), there was significant relationship existed between patient satisfaction and behavioral intention. This result was in line with previous studies in healthcare, whereby patient satisfaction was a dominant, significant, and indirect determinant of behavioral intention (Amin & Zahora Nasharuddin, 2013; Elleuch, 2008; Mohamed & Azizan, 2015). Besides, many studies showed that satisfaction significantly impacted behavioral intention, not only in the medical industry but in many other service industries (Choi et al., 2004). Under the circumstances, therefore, it hypothesized that:

H7: Patient Satisfaction has a significant impact on behavioral intention.

2.8 Behavioral Intention

Dagger and Sweeney (2007) defined behavioral intention as a signal of the strength of the relationship between patients and medical service providers. In addition, Boshoff and Gray (2004) considered that behavioral intention was the possibility that a person had regular plans or decisions. At the same time, Elleuch (2008) proposed that behavioral

intention was the psychological attitude of the patient to make a choice and then take action to implement it. This was also confirmed by Rahman et al. (2018), who considered behavioral intention as indicating that the patient was willing to return and accept the treatment facility or project again. At the same time, the behavioral intention of medical tourists referred to the willingness to return and recommend the location of the hospital to peers as a medical tourism destination (Cham et al., 2016; Kitcharoen & Vongurai, 2021). In addition, Yesilada and Direktr (2010) found that patient satisfaction had direct and indirect effects on behavioral intention. Donabedian (2010) also verified that patient satisfaction and behavioral intention were positively and significantly correlated.

3. Research Methods and Materials

3.1 Research Framework

In this study, the researcher developed the conceptual framework based on three previous theoretical frameworks. The first previous theoretical framework developed by (Rehaman & Husnain, 2018) provided six variables, including tangibles, assurance, reliability, responsibility, empathy, and satisfaction. The second was conducted by (Sumaedi et al., 2015), supplied image and satisfaction. The last one, built by (Elleuch, 2008), provided satisfaction and behavioral intention. The research framework is shown in Figure 1.

Figure 1: Conceptual Framework

H1: Responsiveness has a significant impact on patient satisfaction.
H2: Empathy has a significant impact on patient satisfaction.
H3: Assurance has a significant impact on patient satisfaction.
H4: Reliability has a significant impact on patient satisfaction.
H5: Tangible has a significant impact on patient satisfaction
H6: Image has a significant impact on patient satisfaction.
H7: Patient satisfaction has a significant impact on behavioral intention.

3.2 Research Methodology

The questionnaires were used to investigate patients undergoing treatments in 20 public and private hospitals in Chengdu, China, in 2022. The questionnaire consisted of three parts: screening questions, measurement variables, and demographic questions, and the variables were measured by a Likert five-point scale (Likert, 1932). Moreover, the index of item objective consistency (IOC) was used to evaluate the content validity before the questionnaire survey. Besides, the researcher conducted a pilot experiment on 30 responses and used the index of item objective consistency (IOC) and Cronbach's alpha to test the validity and reliability of the questionnaire. Then the questionnaires were delivered to 600 in-patients, which resulted in 500 accepted responses. Filially, Confirmatory Factor Analysis (CFA) and structural equation modeling (SEM) were analyzed by AMO software (26).

3.3 Population and Sample Size

Burns and Grove (1997) considered that the target population was the overall population that meets the specified standard set. This research's target population was in-patients undergoing hospital service in Chengdu, China. Tanaka (1987) suggested that the sample size depended on various factors, such as the complexity of the model and the number of parameters and indicators. Therefore, this study used the calculator Soper (2015) developed to calculate the appropriate sample size, and the recommended minimum sample size was 444. However, Tanaka (1987) suggested that the sample size depended on various factors, such as the complexity of the model and the number of parameters and indicators. Therefore, the appropriate sample size for this study was 500.

3.4 Sampling Technique

Non-probability sampling can improve the efficiency of the survey and be more targeted. Therefore, since the probability of respondents being surveyed in this study was unequal, the researcher used non-probability sampling as the sampling technique. In addition, the sampling procedure of this study was divided into three steps: judgment sampling, quota sampling, and convenience sampling. The sampling proportion distribution is shown in Table 1.

Table 1: Sample Units and Sample Size

Hospital Type	Population Size of Outpatient (Thousand)	Proportional Sample Size
Public hospitals	2310	353
Private hospitals	966	147
Total	3276	500

Source: Statistical bulletin of Chengdu health development in 2020

4. Results and Discussion

4.1 Demographic Information

As shown in Table 2, the respondents consisted of 226 males and 274 females, representing 45.2 percent and 54.8 percent, respectively. The majority age range fell between above 60, representing 24.2%, followed by 50- 59 years old (21.8%), 30-40 years old (18.6%), 40-50 years old (17.4%), 18-30 (15.8%) and below 18 (2.2%). As regards marital status, most respondents were married (71.8%), followed by a single (15.4%) and divorced (12.8%). Regarding education, most respondents were high school graduates and below, representing 48.6%, followed by bachelor's degrees, Master's degrees, and Doctor's degrees, representing 41.8%, 6.0%, and 3.6%, respectively.

Table 2: Demographic Profile

Demographic and Behavior Data (N=500)		Frequency	Percentage
Gender	Male	226	45.2
	Female	274	54.8
Age	Below 18	11	2.2
	18-30	79	15.8
	31-40	93	18.6
	41-50	87	17.4
	51-59	109	21.8
	Above 60	121	24.2
Marital status	Single	77	15.4
	Married	359	71.8
	Divorce	64	12.8
Education	High school graduate and below	243	48.6
	Bachelor's degree	209	41.8
	Master's degree	30	6
	Doctor's Degree	18	3.6

4.2 Confirmatory Factor Analysis (CFA)

In CFA, Cronbach's Alpha was used to test the reliability of the questionnaire. In this study, the alpha coefficient values of all groups were higher than 0.7, which indicated that all structures were reliable. In addition, Byrne (2001) pointed out that convergent and distinct validity were two methods for construct validity, which could be confirmed through CFA. In this study, factor loading, average variance extracted (AVE), and complete reliability (CR) were usually used to test the convergence validity of the conceptual model (Hair et al., 2013). In this study, factor loading values of all variables were higher than 0.5, and a p-value lower than 0.05 was considered acceptable (Hair et al., 2013). Besides, CR values of all variables above 0.7 and AVE values of all variables above 0.5 are considered adequate (see Table 3).

Table 3: Confirmatory Factor Analysis Result, Composite Reliability (CR) and Average Variance Extracted (AVE)

Variables	Source of Questionnaire	No. of Items	Cronbach's Alpha	Factors Loading	CR	AVE
Responsiveness (RES)	Kitapci et al. (2014)	3	0.775	0.729–0.737	0.777	0.537
Empathy (EMP)	Ampaw et al. (2020) and Sema et al. (2017)	3	0.948	0.912–0.958	0.949	0.861
Assurance (ASS)	Rehaman and Husnain (2018) and Ratnawati et al. (2020)	3	0.768	0.657–0.825	0.771	0.532
Reliability (REL)	Sema et al. (2017)	3	0.879	0.807–0.890	0.878	0.706
Tangibles (TAN)	Ali et al. (2018) and Sema et al. (2017)	6	0.864	0.592–0.862	0.870	0.531
Image (IMA)	Coutinho et al. (2019)	3	0.800	0.656–0.823	0.804	0.580
Patient Satisfaction (PS)	Dagger and Sweeney (2007) and Ampaw et al. (2020)	3	0.832	0.747–0.845	0.836	0.630
Behavioral Intention (BI)	Dagger and Sweeney (2007)	3	0.883	0.810–0.879	0.884	0.717

CFA was used to check the degree to which several measurement variables can constitute potential variables (Jöreskog & Sörbom, 1993). As it was shown in Table 4, CMIN/DF = 1.687, GFI = 0.932, AGFI = 0.914, NFI=0.937, CFI = 0.973, TLI = 0.968, and RMSEA = 0.037.

Table 4: Goodness of Fit for Structural Model

Index	Acceptable	Values
CMIN/DF	< 5.00 (Al-Mamary et al., 2015; Awang et al., 2012)	1.687
GFI	≥ 0.85 (Sica & Ghisi, 2007)	0.932
AGFI	≥ 0.80 (Sica & Ghisi, 2007)	0.914
NFI	≥ 0.80 (Wu & Wang, 2006)	0.937
CFI	≥ 0.80 (Bentler, 1990)	0.973
TLI	≥ 0.80 (Sharma et al., 2005)	0.968
RMSEA	< 0.08 (Pedroso et al., 2016)	0.037
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

Discriminant validity was confirmed when the AVE's square root was larger than any intercorrelated construct coefficient (Fornell & Larcker, 1981). In this study, the square root of all AVE values was greater than inter-

construct correlations. Thus, discriminant validity can be accepted for the measurement model (see Table 5).

Table 5: Discriminant Validity

	RES	EMP	ASS	REL	TAN	IMA	PS	BI
RES	**0.732**							
EMP	-0.080	**0.930**						
ASS	0.048	-0.106	**0.730**					
REL	0.239	-0.043	0.272	**0.840**				
TAN	0.319	-0.066	0.207	0.491	**0.729**			
IMA	0.272	-0.033	0.110	0.367	0.405	**0.762**		
PS	0.300	-0.059	0.175	0.513	0.630	0.365	**0.794**	
BI	0.329	-0.042	0.258	0.753	0.476	0.354	0.485	**0.847**

4.3 Structural Equation Model (SEM)

The Good-of-fit indices for structural model of SEM are shown in Table 6. The results of statistical values are CMIN/DF = 3.057, GFI = 0.869, AGFI = 0.842, NFI = 0.914, CFI = 0.914, TLI =0.904, and RMSEA = 0.064. Consequently, from the values above, the fit of structural models is confirmed.

Table 6: Goodness of Fit for Structural Equation Model

Index	Acceptable	Values
CMIN/DF	< 5.00 (Al-Mamary et al., 2015; Awang et al., 2012)	3.057
GFI	≥ 0.85 (Sica & Ghisi, 2007)	0.869
AGFI	≥ 0.80 (Sica & Ghisi, 2007)	0.842
NFI	≥ 0.80 (Wu & Wang, 2006)	0.878
CFI	≥ 0.80 (Bentler, 1990)	0.914
TLI	≥ 0.80 (Sharma et al., 2005)	0.904
RMSEA	< 0.08 (Pedroso et al., 2016)	0.064

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

Based on Table 7, hypotheses testing results revealed that H1, H4, H5, H6, H7 were supported, while H2 and H3 were rejected. The explanation of research hypothesis testing was as follows:

Table 7: Hypothesis Results of the Structural Equation Modeling

Hypothesis	(β)	t-Value	Result
H1: RES → PS	0.196	4.269*	Supported
H2: EMP → PS	-0.018	-0.463	Not Supported
H3: ASS → PS	0.067	1.578	Not Supported
H4: REL → PS	0.841	10.828*	Supported
H5: TAN → PS	0.389	7.054*	Supported
H6: IMA → PS	0.113	2.649*	Supported
H7: PS →BI	0.747	9.947*	Supported

Note: * p<0.05

H1: The standardized path coefficient between responsiveness and patient satisfaction was 0.196, with a t-value of 4.269*. It showed that responsiveness significantly impacts patient satisfaction; H1 was supported. Our findings were consistent with Boshoff and Gray (2004), who pointed out that responsiveness affected patients' expectations of non-medical care and satisfaction. It is also confirmed by Kashkoli et al. (2017), who confirmed that hospital responsiveness could positively affect patient satisfaction.

H2: Our findings indicated that H2 was rejected since the standardized path coefficient was -0.018 and the t-value of -0.463. It was consistent with Kitapci et al. (2014), who believed that there was no relationship between empathy and patient satisfaction, and it may be the result of patients' distrust of the hospital due to the hospital's failure to provide reliable services in the past.

H3: Assurance was insignificantly related to patient satisfaction since the standardized path coefficient was 0.067 and the t-value of 1.578. Therefore, H3 was rejected. It was aligned with the study of Ratnawati et al. (2020), who believed that assurance was not important to patients.

H4: The results supported the hypothesis of the significant relation between reliability and patient satisfaction with a standardized path coefficient of 0.841 and a t-value of 10.828*. This implied that if hospitals performed well in terms of reliability, they would obtain high-quality perception scores. These findings were in line with those of Lee (2017) and Rafiei et al. (2017).

H5: The findings suggested that tangibles significantly impacted patient satisfaction, with a standardized path coefficient of 0.389 and a t-value of 7.054*. Therefore, H5 was supported. Tangibles were the patient's first impression of the medical service system. They were all visual things, including physical facilities, equipment, and the appearance of doctors, nurses, and auxiliary personnel, which was a key factor influencing their evaluation of the quality of medical care. Similar results were found in the study of Ampaw et al. (2020), who pointed out that tangibility and patient satisfaction are associated significantly. In Andaleeb et al. (2007)'s research, it was confirmed that tangible had a significant impact on in-patient satisfaction.

H6: The results proved that image significantly impacted patient satisfaction since the standardized path coefficient of 0.113 and t-value at 2.649*. Therefore, H6 was supported. It implied that if patients had a good attitude and cognition toward the brand, they were likely to have a high evaluation of the satisfaction of medical services (Barich & Kotler, 1991). These findings corroborated with Coutinho et al. (2019), who confirmed that the image was the main aspect influencing patient satisfaction.

H7: The present study showed that patient satisfaction significantly impacted behavioral intention. Therefore, H7 was supported. This meant that satisfaction would help

establish a good relationship between the hospital and patients and ultimately positively impact behavioral intention. These findings were in line with those of Zarei et al. (2014) and Donabedian (2010).

5. Conclusion, Recommendation & Limitation

5.1 Conclusion and Discussion

This research aimed to examine the significant influence of in-patient satisfaction and behavioral intention in Chengdu, China. The conceptual framework consisted of eight variables: responsiveness, empathy, assurance, reliability, tangibles, image, patient satisfaction, and behavior intention. Then, seven hypotheses were proposed to correspond with the research questions defined. Besides, the validity and reliability of the questionnaire were carried out by IOC Cronbach's alpha. With the collected data, 500 accepted responses in Chengdu, China, were collected by non-probabilistic sampling technology. Confirmatory Factor Analysis (CFA) and structural equation modeling (SEM) were analyzed.

The findings of this research can be described as follows. First, the results of the present study showed that patient satisfaction significantly impacted behavioral intention. The previous literature of Mohamed and Azizan (2015) believed that a significant relationship existed between patient satisfaction and behavioral intention. Hence, patient satisfaction was a key factor in predicting behavioral intention. Second, reliability had the strongest impact on patient satisfaction. It implied that patients' basic and core needs were to be treated and restored to health, reliability represented the ability to carry out the promised service fairly, equitably, dependably, and accurately, and it was the most important dimension of patient satisfaction. Third, tangibles showed as the second rank of influencer score on patient satisfaction. Similar results were found in the study of Ampaw et al. (2020), who pointed out that tangibles and patient satisfaction are associated significantly. Therefore, the priority of medical service experience evaluation was tangibles, and a patient with great experience was likely to have a high evaluation of the satisfaction of medical services.

Moreover, the results showed that responsiveness significantly impacted patient satisfaction. Therefore, if the hospital provided responsive services, patient satisfaction would improve. Finally, the results indicated that images were the main factor influencing patient satisfaction. The image was the consumers' subjective judgment of the company's image. It was the psychological experience of patients for all memories, feelings, beliefs, and knowledge of the medical system. If patients had a good attitude and cognition toward the brand, they were likely to have a high

evaluation of the satisfaction of medical services. In summary, the determinants of patient satisfaction were reliability, responsiveness, tangibles, and image. In addition, patient satisfaction was a key factor in predicting behavioral intention.

5.2 Recommendation

The researcher identified key factors impacting in-patient satisfaction and behavior intention and provided several practical recommendations that hospitals should consider. According to the results of this study, hospital managers can improve service management and in-patient satisfaction and obtain more customers to improve the market competitiveness of the hospital. In order to make the research conclusion play a full role in the implementation of strategy for hospitals, it is suggested that hospitals should pay attention to the following recommendations:

Firstly, the researcher found that patient satisfaction significantly impacted behavioral intention. Hence, promoting patient satisfaction must be emphasized. Patient satisfaction is an important indicator of behavioral intention (Amin & Zahora Nasharuddin, 2013), and it is also an evaluation of treatment results and medical services and an important measure to understand the quality of hospital medical services, medical ethics, and other projects. Besides, many factors affect patient satisfaction, including hospitals, medical staff, patients themselves, and other aspects. Through the measurement and evaluation of patient satisfaction, the hospital can understand the needs and expectations of customers, as well as the feelings of service experience. Last, it is important to find the gap between the medical service quality provided by the hospital and the service quality expected by customers, to find the focus of medical service quality management, put forward targeted management measures, improve customer satisfaction, and improve performance and competitiveness.

5.3 Limitation and Further Study

Firstly, the object of this study is patients in hospitals in Chengdu, China. Affected by social and economic conditions, the characteristics of income, working environment, and education level of the population in other underdeveloped areas will vary greatly, and different samples may show different results. Therefore, future research should compare the differences in influencing factors in different regions to enhance the universality of the research results. In addition, China is in a period of social transformation and medical reform, and the factors affecting patient satisfaction and behavior intention may also change. Therefore, the relevant variables explored in this study need to be continuously improved in the promotion and application.

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