

PERCEIVED SERVICE QUALITY, TRUST, AND PATIENT SATISFACTION INFLUENCE BEHAVIORAL INTENTION OF CANCER PATIENT IN LIUZHOU, CHINA

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ABSTRACT

Cancer is a serious and chronic disease in which patients require complex medical care and treatment. High-quality medical services and harmonious doctor-patient relationships are essential and positive for improving patients' behavioral intentions and treatment outcomes. Using relevant theories and a mixed quantitative and qualitative research approach, this study aimed to investigate the mechanisms of perceived service quality, trust and patient satisfaction on behavioral intentions of cancer patients. The findings show that perceived service quality, trust and satisfaction have a positive effect on cancer patients' behavioral intentions, while perceived service quality and trust mediate the behavioral intentions of cancer patients through satisfaction. The results of this study help healthcare providers and healthcare workers to better understand patients' needs and expectations in order to provide higher quality services and treatment options that will improve patient outcomes and quality of life. The contribution of this study is to improve the understanding of the formation mechanism of behavioral intention of cancer patients, and to provide theoretical support for health care workers to enhance the innovative management of hospitals, improve the quality of medical services, and increase the behavioral intention of patients to participate in treatment.

Keywords: Perceived service quality, trust, patient satisfaction, behavioral intention

Introduction

Cancer is a serious chronic disease that imposes enormous physical, psychological and economic burdens on patients and families. In China, the number of cancer patients is increasing year by year, and it has become one of the major public health issues that seriously threaten the health of the Chinese population. According to the latest data released by the International Agency for Research on Cancer (IARC) of the World Health Organization in 2020, there were 4.57 million new cases of cancer and 2.81 million deaths in China, with cancer deaths accounting for 23.91% of all causes of death in the population (He F., 2022).

Guangxi is a region with high incidence of tumors. In 2020, there will be 52,345 patients with new onset of tumors and 34,162 deaths in Guangxi, and the incidence rate and mortality rate are higher than the national average (National Cancer Center of China, 2021). The number of new cases, deaths and treatment costs of tumor patients in China and Guangxi from 2016 to 2020 are shown in Table 1.1.

Table 1.1 Number of New Cases, Deaths, and Treatment Costs for Tumor Patients
(China and Guangxi, 2016-2020)

Year	China			Guangxi		
	New cases (Unit: 10,000)	Deaths (Unit: 10,000)	Treatment Costs (Unit: billionyuan)	New cases (Unit: 10,000)	Deaths (Unit: 10,000)	Treatment Costs (Unit: billionyuan)
2016	408.5	282.4	9532	4.0854	2.7856	80.73
2017	417.5	281.1	11280	4.3826	2.9506	94.27
2018	427.5	282.1	12717	4.6487	3.0567	109.49
2019	437.5	283.1	13954	4.9354	3.2482	124.61
2020	434.4	281.1	14956	5.2345	3.4162	139.07

Data source: China Tumor Registry Annual Report 2016-2020

The medical behavior of cancer patients has a positive impact on the sustainable development of hospitals (Zhang & J., 2018). Patients with positive behavioral intentions are more likely to be treated in the same hospital, maintaining a stable patient population, reducing patient turnover, and improving the competitiveness of the hospital. In addition, patients with positive behavioral intention are more willing to establish a long-term relationship with the hospital, which usually spreads through word-of-mouth and attracts more patients to the hospital and promotes the business growth of the hospital (Zou, X., & Wang, X., 2018). Therefore, improving patient behavioral intention is one of the key factors for the long-term stable development of hospitals.

Problem Statement

For cancer patients, receiving high-quality medical services is crucial for their survival and quality of life. As a less developed city in China, Liuzhou has relatively limited medical resources and service levels. In the cancer patient population, their perceptions, trust, and satisfaction with healthcare services may be affected by a variety of factors, such as the lack of healthcare resources, ethnic medication habits, the complexity of the doctor-patient relationship, and the cultural literacy of the patients and their families (Li Q.W., & Ji G. Z., 2022). In the current study, although some attention has been paid regarding the impact of patient satisfaction on patients' behavioral intentions, the findings are not yet consistent and there are certain research gaps. In particular, the effect of patient satisfaction on patients' behavioral intention may vary among patients in different regions, different types of medical institutions, or different disease types (Huang, Y., & Cao, P., 2021).

Therefore, further in-depth research on the effects of perceived service quality, trust, and patient satisfaction on cancer patients' behavioral intention is of great theoretical and practical significance to gain insight into the mechanisms of behavioral decision-making among cancer patients, improve healthcare service quality, and optimize healthcare management and decision-making.

Research Questions

To address the specificity of healthcare services, this study aims to investigate the effects of perceived service quality, trust and satisfaction on behavioral intention. In the study, perceived service quality and trust are independent variables, satisfaction is an intermediate variable, and behavioral intention is the dependent variable. Specifically, the research questions are as follows:

- (1) What is the perceived service quality and trust level of cancer patients in Liuzhou, China?

- (2) How does perceived service quality affect the behavioral intentions of cancer patients in Liuzhou, China?
- (3) What is the impact of trust on the behavioral intention of cancer patients in Liuzhou, China?
- (4) Does patient satisfaction mediate the relationship between perceived service quality and behavioral intentions?
- (5) Does patient satisfaction mediate the relationship between trust and behavioral intention?

By exploring the above issues, we can gain a deeper understanding of the needs and behavioral characteristics of cancer patients, and provide theoretical guidance and practical reference for medical service enhancement and improvement of patients' behavioral intention.

Research Objectives

The purpose of this study is to explore the interrelationships among perceived service quality, trust, patient satisfaction and behavioral intention, and to analyze the influencing factors affecting cancer patients' behavioral intention, so as to provide theoretical guidance and practical references for healthcare services and improving patients' behavioral intention.

- (1) To examine the degree of perceived service quality and trust among cancer patients in Liuzhou, China.
- (2) To determine the direct effects of perceived service quality and trust on behavioral intentions of cancer patients in Liuzhou, China.
- (3) To explore the mediating role of patient satisfaction between perceived service quality, trust and behavioral intention.

Research Hypothesis

The purpose of this study was to investigate the mechanisms of behavioral intention formation among cancer patients in Liuzhou, China. To this end, we constructed a causal model containing four latent variables of perceived service quality, trust, patient satisfaction, and behavioral intention, and proposed the following seven hypotheses to test the causal relationships among these latent variables:

- H1: Perceived service quality affects patient satisfaction.
- H2: Perceived service quality affects behavioral intention.
- H3: Trust affects patient satisfaction.
- H4: Trust affects behavioral intention.
- H5: Patient satisfaction affects behavioral intention.
- H6: Perceived service quality affects behavioral intention through patient satisfaction.
- H7: Trust affects behavioral intention through patient satisfaction.

Specifically, this study concluded that patients' perceived service quality and trust have effect on patient satisfaction and behavioral intention. Also perceived service quality and trust have an effect on behavioral intention through the mediating effect of patient satisfaction.

These hypotheses are constructed based on existing studies and theories, meet the requirements of causality of variables, and are scientifically valid and testable, and will be verified in the follow-up study.

Scope of the Study

Population

The target population is the group of subjects that the researcher needs to infer the information that may need to be obtained through the study to support the purpose and hypothesis of the study (Westreich, D., Edwards, J. K., Lesko, C. R., Cole, S. R., & Stuart, E. A., 2019). Cancer patients in the Liuzhou area of China provided data for this study. Cancer has become one of the leading causes of death among Chinese residents and is on the rise year after year. As a heavy industrial city in southern China, cancer has become the number one health-threatening disease in Liuzhou. Behavioral intentions of cancer patients usually refer to patients' behavioral tendencies during treatment and recovery, such as whether they follow doctors' advice and

instructions, actively participate in the treatment and recovery program, and adopt an active and healthy lifestyle during treatment and recovery, etc., and these behavioral intentions may have a significant impact on patients' recovery and survival (Cao, S. N., Shi, T. Y., Li, F. L., & Shi, G. Y., 2021). Cancer patients' long treatment time, high psychological stress, high medical costs, and unfulfilled expectations may affect their treatment, recovery, survival, and quality of life (Tao, M. M., & Zhu, M. H., 2021).

Sample

Stage sampling method was used in this study. In the first stage, we selected four medical institutions in Liuzhou City as sample units, including Guangxi Cancer Hospital, Liuzhou People's Hospital, Liuzhou Workers' Hospital and Liuzhou Hospital of Traditional Chinese Medicine. In the second stage, we selected cancer patients from these four medical institutions as the sample group. In the third stage, patients who met the requirements of the study were selected again as sample subjects from the cancer patients selected in the second stage. The expected sample size for this study was 210 participants.

Sample selection criteria for the quantitative and qualitative studies included patients with pathologically or cytologically confirmed cancer (regardless of cancer type), hospitalization of at least 7 days, consciousness, and no other significant physical illness or psychiatric history. The questionnaire was completed by the patients themselves, or for patients who were underage or did not have the ability to write, the accompanying family members completed it on their behalf and must represent the patient's own opinion.

Perceived service quality

Perceived service quality pertains to the patients' personal assessment of the quality of service they experience during healthcare treatment. The perceived service quality is measured in five dimensions, namely tangibility, reliability, responsiveness, assurance, and empathy.

Trust

Trust refers to the degree of patients' trust in physicians, a sense of trust in physicians' medical services, and includes four dimensions: fidelity, competence, honesty, and overall trust.

Patient satisfaction

Patient satisfaction refers to the overall feeling of patients towards medical services, including four dimensions: satisfaction with the location of the hospital, satisfaction with the treatment effect, satisfaction with medical services, and satisfaction with nursing services.

Behavioral intention

Behavioral intention refers to the behavioral choices and tendencies of patients after receiving medical services, including four dimensions of patients' repurchase intention, recommendation intention, treatment intention and health intention.

Significance of the Study

The purpose of this study was to investigate the mechanisms underlying the decision-making process of medical behaviors of cancer patients. To promote the improvement and optimization of medical care, patient satisfaction and health outcomes. The main expected benefits of this study are expected to be derived from three areas:

(1) Establishing a good doctor-patient relationship

Trust is an important cornerstone in the doctor-patient relationship and has a critical impact on improving patient satisfaction and behavioral intentions. The purpose of this study was to investigate the effect of trust on patient satisfaction and behavioral intention, and to provide guidance to hospital administrators and health care professionals to build trust in order to establish a good doctor-patient relationship and improve patient loyalty and behavioral intention. This has important practical implications for alleviating the increasingly tense doctor-

patient relationship in the Chinese healthcare market. Therefore, this study can provide valuable suggestions and guidance for hospital administrators and healthcare professionals to build a better doctor-patient relationship and improve patient satisfaction and behavioral intentions.

(2) Promoting medical market competitiveness

The purpose of this study is to investigate the impact of perceived service quality and trust on patients' behavioral intentions in order to gain a deeper understanding of patients' evaluation of and trust in healthcare organizations and to provide valuable references and decisions for healthcare services. By providing more competitive healthcare services, healthcare organizations can improve patient satisfaction and behavioral intention, attract more patients to visit them, increase the market competitiveness of healthcare organizations, and improve their revenues and profits. Therefore, this study can provide recommendations and guidance to healthcare organizations to help them improve their service quality and trust, and thus achieve better performance in the competitive healthcare market.

(3) Better healthcare services for patients

This study aims to investigate the effects of perceived service quality, trust and patient satisfaction on patients' behavioral intentions, reveal patients' expectations and requirements for healthcare service quality, and provide guidance to hospital managers and healthcare professionals so that they can provide better healthcare services according to patients' actual needs. By improving the quality of healthcare services and establishing a patient-centered healthcare service market, healthcare organizations can improve patient satisfaction and behavioral intentions, thereby improving the quality of patient survival. Therefore, this study can provide valuable references and suggestions for hospital managers and healthcare professionals to improve the quality of healthcare services, truly realize the concept of patient-centered healthcare services, and provide better quality healthcare services to patients.

Definitions of Key Term

(1) Perceived service quality

In this study, perceived service quality refers to the patient's subjective evaluation of the quality of service perceived during the healthcare service. In order to more accurately describe perceived service quality, this study classifies its measurement into five dimensions: tangibility, reliability, responsiveness, assurance, and empathy.

(2) Trust

In this study, trust is defined as the degree to which patients perceive the integrity, reliability, and trustworthiness of physicians in the delivery of health care services. This study will measure physicians' trust in four dimensions: fidelity, competence, honesty, and overall trust.

(3) Patient satisfaction

In this study, patient satisfaction was defined as patients' overall evaluation of medical services, covering four aspects of satisfaction, such as hospital location, treatment effect, medical service, and nursing service.

(4) Behavioral Intentions

In this study, behavioral intention refers to the changes in cognitive, affective and attitudinal factors of patients after the medical care experience in a specific context, and for possible future behavioral choices and tendencies, mainly including four aspects: repurchase intention, recommendation intention, treatment intention and health intention.

Review of Related Literature and Study

Perceived Service Quality and Patient Satisfaction

The theory of perceived service quality suggests that customers form subjective perceptions and evaluations of the service provider's performance, which are considered as service quality. If customers perceive high service quality, they are generally satisfied with the service provider and willing to continue using the service. Conversely, if customers perceive low service quality, they may express dissatisfaction and look for other service providers (Li, C., Zhou, H., Wan, J., & Wang, F., 2021).

Zhai et al. (2018) found that patients' cognitive perception, personnel quality perception, process quality perception, technical quality perception, and fee perception all have a significant positive impact on patient satisfaction, with the most influential factor being patients' cognitive perception, followed by personnel quality perception, process quality perception, technical quality perception, and fee perception. AGBI (2020) found in their study of patient satisfaction in Ghana's healthcare sector that patients' perception of service quality has a significant positive impact on their satisfaction, with reliability, responsiveness, and empathy having the greatest impact on satisfaction. Zhao et al. (2020) found in their study that medical technology and medical ethics are the main factors affecting overall patient satisfaction in prefecture-level hospitals. Additionally, Kant and Jaiswal (2017) found in their study of the Indian banking sector that the "responsiveness" dimension of perceived service quality was the most important predictor of customer satisfaction.

H1: Perceived service quality affects patient satisfaction.

In recent years, an increasing number of studies have focused on the relationship between perceived service quality and behavioral intentions. Many studies have found that perceived service quality has a significant positive effect on behavioral intentions.

Wu et al. (2022) found that doctors' service reputation, service qualifications, technical quality, and comment quality affect patients' online doctor selection behavior. Cao et al. (2022) found that interaction frequency, response speed, information quantity, e-word-of-mouth, outpatient registration, and price have a positive impact on online patient purchase behavior. Through the use of a structural equation model, Aliman and Mohamad (2016) investigated the correlation between perceived service quality, patient satisfaction, and behavioral intention in the Malaysian private healthcare industry. Their study revealed a positive correlation between the service quality dimension and patient satisfaction. Both service quality dimension and patient satisfaction are positively correlated with behavioral intention. Private hospitals should introduce strong management orientation to provide high-quality services, improve patient satisfaction, and encourage intentions to revisit and recommend to others. Singh and Dixit (2021) found that the infrastructure, personnel quality, and social responsibility dimensions of PSQ have a direct impact on behavioral intention in their study of Indian government hospitals.

H2: Perceived service quality affects behavioral intention.

Trust theory suggests that trust is the expectation and willingness of a person to act in a manner consistent with their expectations of another person or organization at critical times (Xu, 2020). In healthcare services, if patients have trust in their doctors and healthcare providers, they are more likely to be satisfied with the healthcare services provided and are more willing to continue to choose the same doctor or healthcare provider. Conversely, if patients do not trust their doctors or healthcare providers, they are likely to be dissatisfied with the healthcare services and may seek services from other healthcare providers (Dhir et al., 2019).

Chen et al. (2020) conducted a survey of 180 Chinese patients receiving outpatient treatment in hospitals and found that the level of trust that patients have in their doctors and healthcare institutions is positively correlated with patient satisfaction, meaning that the higher the level of trust, the higher the patient

satisfaction. Additionally, the study found that patient personal factors (such as age, gender, etc.) and medical service factors during treatment (such as doctor's attitude, medical technology level, etc.) all have an impact on patient trust and satisfaction. Similarly, Alenazi et al. (2021) study found that patient trust is closely related to healthcare service satisfaction, and patient trust in doctors is closely related to the evaluation of the doctor's attention, nursing attitude, appointment scheduling, and waiting time. Dugan et al. (2005) study also found that patient trust is one of the important factors that affect satisfaction. Additionally, patient trust can be established through the doctor's professional knowledge and skills, communication skills, and humanized services, among other aspects.

H3: Trust affects patient satisfaction.

As an important factor influencing patients' behavioral intentions, the level of trust patients have in their healthcare providers is closely related to their behavioral intentions toward healthcare. A study by Dhagarra et al. (2020) using structural equation modeling on healthcare recipients from New Delhi, India, showed that trust and privacy concerns were direct predictors of patients' technology acceptance behavior when utilizing healthcare services. This study provides an empirical contribution regarding the impact of trust and privacy concerns on healthcare technology acceptance. Hong (2020) found that perceived risk had a significant negative effect on patient initial trust and a non-significant effect on patient behavioral intention. Patient initial trust had a significant positive effect on patient behavioral intention. The results of Shen et al. (2020) showed that patient perceived quality was the most important determinant of patients' community first visit and that patient trust had a significant positive effect on patients' intention to make a community first visit. A study by Zhao et al. (2021) similarly demonstrated that patients' interpersonal trust in primary care providers influenced willingness to make a first visit.

H4: Trust affects behavioral intention.

According to the Theory of Planned Behavior (TPB), individuals' satisfaction and behavioral intention are influenced by their attitude, subjective norms, and perceived behavioral control (Lei, 2019). Patient satisfaction directly affects patients' behavioral intentions towards seeking medical care, as they are more likely to continue choosing medical services that they are satisfied with. This results in a more positive behavioral intention during the process of receiving medical care (Wang & Li, 2022).

In recent years, the impact of patient satisfaction on patients' behavioral intentions has become a hot topic in healthcare service quality research. Studies have shown that patient satisfaction has an important influence on patients' behavioral intentions. On the one hand, patient satisfaction is positively correlated with behavioral intention. By utilizing PLS-SEM, Widjaja and Achmadi (2022) examined the influence of service quality, patient satisfaction, and COVID-19 protection on patients' behavioral intention. The results of their study revealed a positive and significant impact of patient satisfaction on behavioral intention. Rungklin et al. (2023) found in their study on medical tourists in southern Thailand that patient satisfaction directly influences the decision to reuse foreign medical tourist services and affects the intention to disseminate information through electronic media. However, some studies have shown that patient satisfaction has no positive impact on behavioral intention and further research is needed to examine the mediating role of patient satisfaction in the mechanism of its impact on behavioral intention (Karsana & Murhadi, 2021). Heydari Fard et al. (2021) found that medical tourists' perception of the authenticity of the medical center and the destination image would affect their perceived value and satisfaction. Additionally, medical tourists' travel satisfaction would affect their intention to revisit, and the intention to revisit would affect word-of-mouth.

H5: Patient satisfaction affects behavioral intention.

In recent years, researchers have conducted extensive research on the mediating effects of patient satisfaction on perceived service quality and patient behavioral intentions.

The study by Akthar et al. (2023) showed that the perception of service quality significantly affects patient

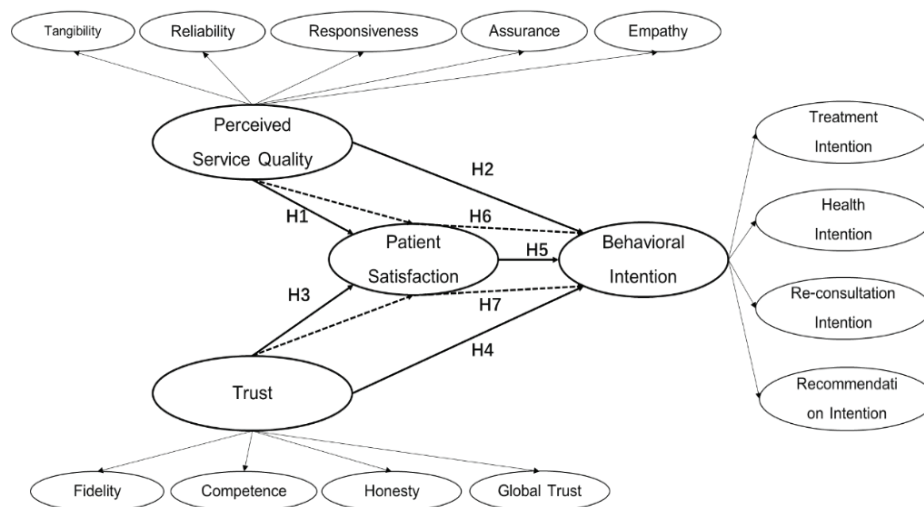
behavioral intentions through the mediating effect of patient satisfaction. Healthcare professionals must ensure the provision of good service quality to improve patient satisfaction with the service, which will affect patient behavioral intentions. Guspianto et al. (2022) found in their study on the revisit intentions of patients to public health centers that service quality significantly affects patient satisfaction, which in turn significantly affects patients' revisit intentions. Similarly, KabiruHammanjoda and Singh (2022) conducted a study on inpatient and outpatient patients using the 6-Q model and discovered that the perception of service quality has a positive impact on patient satisfaction and behavioral intentions. In another study by Aladwan et al. (2021), service quality was found to have a positive direct effect on patient behavioral intentions and patient satisfaction, with patient satisfaction acting as a mediator between service quality and patient behavioral intentions. Similarly, Suhail and Srinivasulu (2021) conducted a survey of 178 patients from 35 healthcare facilities in the Ashanti region of Ghana and observed a significant positive correlation between the perception of service quality and patient satisfaction and behavioral intentions. The study also showed that patient satisfaction acts as a mediator between perceived service quality and healthcare behavioral intentions.

H6: Perceived service quality affects behavioral intention through patientsatisfaction.

Numerous studies have investigated the mediating role of patient satisfaction in the relationship between trust and behavioral intention. Huang and Zhang (2014) found that patient satisfaction mediates the association between trust and loyalty behavior, regardless of whether the trusted party is a physician or a hospital. Fachmi et al. (2020) conducted a survey in the life insurance industry and found that service quality, trust, and corporate image have a direct and significant positive impact on customer satisfaction. Service quality and trust have a positive but not significant impact on customers' intention to transact on the website. The mediating role of customer satisfaction indicates that service quality, trust, and corporate image have an indirect positive and significant impact on customers' intention to transact on the website. Chang et al. (2019) investigated the doctor-patient online interaction and reported that distributive justice, procedural justice, and interpersonal justice significantly affect patient trust, which then affects satisfaction and willingness to continue consulting. The intention to consult significantly affects patients' behavioral intention to visit.

Research Framework

The purpose of this study is to investigate the relationship between perceived service quality, trust, patient satisfaction and behavioral intention, based on the above literature, the conceptual framework of this study is constructed as follows: (see Figure 3.1).



The main objective of this study was to identify the factors that influence the behavioral intentions of cancer patients, and as such, the study was exploratory in nature and intended to be descriptive and analytical. The scale measurement constructed in this study mainly draws on the existing scales, which have been proved to be reliable and effective. The five-point Likert scale was used to measure perceived service quality, trust, patient satisfaction and behavioral intention. All items were measured using a five-point Likert scale, with 1 indicating strong disagreement and 5 indicating strong agreement. On the basis of literature review, the measurement of research variables is shown in the table below.

Measurement Items	References
Perceived Service Quality	SERVPERF Model Cronin & Taylor (1992) Meesala & Paul, (2018)
1. The hospital has up-to-date equipment.	
2. Hospital's physical facilities are visually appealing.	
3. Hospital's employees appear neat.	
4. The hospital provides its services to the patients at the time it promises to do so.	
5. When patients have problems, hospital's employees are sympathetic and reassuring.	
6. The hospital is accurate in its billing.	
7. Hospital employees tell patients exactly when services will be performed.	
8. Patients receive prompt service from the employees.	
9. Hospital employees are always willing to help patients.	
10. Patients feel safe in their interactions with employees.	
11. Employees are knowledgeable.	
12. Employees are polite.	
13. Employees get adequate support from the management to do their jobs well.	
14. The hospital's employees give patients personal attention.	
15. The hospital has patients' best interests at heart.	
Physician Trust	Physician Trust Scale (WFSMT-P) Hall at al., (2002) Dong & Bao, (2012) Jneid at al. (2018)
16. [Your doctor] will do whatever it takes to get you all the care you need.	
17. Sometimes [your doctor] cares more about what is convenient for [him or her] than about your medical	
18. [Your doctor's] medical skills are not as good as they should be.	
19. [Your doctor] is extremely thorough and careful.	
20. Sometimes [your doctor] does not pay full attention to what you are trying to tell [him or her].	
21. [Your doctor] is totally honest in telling you about all of the different treatment options available for your	
22. [Your doctor] only thinks about what is best for you.	
23. You completely trust [your doctor's] decisions about which medical treatments are best for you.	
24. You have no worries about putting your life in [your doctors] hands.	
25. All in all, you have complete trust in [your doctor].	
Patient Satisfaction	

26. I am satisfied with the hospital's location.	Al-Damen, (2017)
27. I am satisfied with the treatment at the hospital	
28. I am satisfied with medical care at the hospital	
29. I am satisfied with the nursing care at the hospital	
Behavioral Intention	Meesala & Paul, (2018) Zeng, Liu, Li, Jiang, Zhou, & Yu (2018) Nie & Jin, (2017)
30. Will you use this hospital should you need medical care in the future?	
31. Will you consider this hospital as your first choice for medical care in the future?	
32. Will you refer this hospital to others?	
33. Will you encourage your friends and relatives to choose this hospital when needed?	
34. I am willing to follow the doctor's treatment plan for my medical care.	
35. I intend to take medication according to the doctor's prescription.	
36. I am willing to comply with the doctor's arrangements for my treatment.	
37. I am willing to listen to my doctor's advice and adjust my daily diet.	
38. I am willing to listen to my doctor's advice and change my bad habits.	
39. I am willing to listen to the doctor's advice and keep exercising.	

Figure 3.2 Respondent Profile

Sample size determination

SEM is a widely used quantitative multivariate data analysis technique to study the relationship between observed and latent variables. Sample sizes are typically determined on three bases: cost, variance, and statistical power. The purpose of these bases is to ensure the reliability and validity of SEM models (Singh & Masuku, 2014). According to the prior sample size calculator for structural equation models, the minimum sample size for this study was 166 (Soper, 2016). Some researchers have argued that SEM requires a larger sample size, such as $N = 200$ (Boomsma & Hoogland, 2021; Kline, 2005). The expected sample size for this study was 210 participants.

Data collection

We will use random sampling to select 210 respondents from cancer patients in Liuzhou, China to voluntarily answer the questionnaire, and ensure the completeness and authenticity of the questionnaire. We will use Smart-PLS or other statistical software for data analysis to determine the relationship between the variables.

Data analysis

We will use Smart-PLS analysis software to analyze the data to determine the impact of perceived service quality and trust on the behavioral intentions of cancer patients in Liuzhou City. In the model, patient satisfaction will be used as a mediating variable to analyze whether the effects of perceived service quality and trust on behavioral intention are indirectly realized through patient satisfaction.

Discussion

The objective of this study was to explore the external factors that drive cancer patients' behavioral intentions towards medical services. Specifically, this study examined the interrelationship between perceived service quality, trust, patient satisfaction, and behavioral intent. Based on statistical evidence, this study supports all 7 initial hypotheses. This study found that perceived service quality, trust, patient satisfaction and behavioral intention had a direct impact. In addition, through patient satisfaction, it can be inferred that perceived service quality and trust have a direct positive impact on patient satisfaction, while perceived service quality and trust have an indirect impact on behavioral intention through the mediating role of patient satisfaction.

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