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The Influence of Outpatient Service Quality and Patient Characteristics on BPJS Patient Satisfaction at Hospital X Mediated by Doctor-Patient Relationship

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ABSTRACT

The performance of nurses needs attention from health service providers because it can be related to the quality of health services. This study aims to analyze the effect of outpatient service quality and patient characteristics on patient satisfaction through the mediation of the doctor-patient relationship. Respondents in this study were 294 outpatients using BPJS at Hospital X. The type of research used is descriptive quantitative and was conducted at one point in time (cross sectional). The sampling technique used purposive sampling with predetermined criteria. The questionnaire was distributed online via a Google Form link that was distributed to outpatients participating in BPJS who were treated at Hospital X. This study used a multivariate analysis method with the Partial Least Squares Structural Equation Modeling (PLS-SEM) technique. This study concludes that service quality has a positive and significant effect on the doctor-patient relationship. Patient characteristics do not significantly affect the doctor-patient relationship. The doctor-patient relationship has a positive and significant effect on patient satisfaction. Service quality has a positive and significant effect on patient satisfaction mediated by the doctor-patient relationship. Patient characteristics do not significantly affect patient satisfaction through the mediation of the doctor-patient relationship. Hospitals that focus on improving the quality of their services, especially in outpatient services, will provide a positive experience for BPJS patients during treatment, as well as improve the medical and non-medical abilities of doctors. The relationship between doctors and patients is an important factor in shaping a positive patient experience during the process of providing outpatient health services in hospitals.

Keywords: doctor patient relationship, outpatient service quality, patient characteristics, patient satisfaction

INTRODUCTION

Health services are one of the systematic efforts to improve the quality of life and health of the community. As a basic need for every human being, health services aim to prevent disease, improve, maintain, and improve health efficiently and effectively (Değer & İşsever, 2024; Putri et al., 2024). In achieving these goals, the health care system must be directed at increasing access and reducing service gaps. This includes providing quality patient care, developing health

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policies and programs, and effectively managing various supporting elements such as medical personnel, medical equipment, administrative processes, and health facilities (Endalamaw et al., 2023; Malley et al., 2019; Putri et al., 2024). Attention to these components is essential to achieving optimal service outcomes and to improving patient satisfaction (Clarkson et al., 2018; Ferreira et al., 2023).

The initiative to increase the reach of health services in Indonesia is realized through the National Health Insurance program, which is held to increase fair and equitable access and improve the quality of health services for the entire community (Saputra & Istiqomah, 2024). This program provides an opportunity for the community to obtain health services that include improving health conditions, disease prevention, disease treatment, and rehabilitation at affordable costs (Sukartini et al., 2021). The JKN program began in 2014 and is organized by the Social Security Administering Agency (BPJS) Health under the Ministry of Health of the Republic of Indonesia. Since its launch, the number of BPJS Health participants in Indonesia has continued to increase rapidly. Based on data from the National Health Insurance Council, the number of BPJS participants in 30 September 2024 reached 277,143,330 people (BPJS, 2024).

Based on data from the National Health Insurance Council in 2024, there was a significant increase in the number of BPJS participants in Indonesia. In 2019, there were 224.15 million BPJS participants. This number decreased when the Covid-19 pandemic broke out in 2020 to 22.46 million. However, in 2021, the number of BPJS participants increased significantly again to 235.72 million. This number continued to rise to 248.77 million in 2022 and 267.31 million in 2023. In July 2024, the number of BPJS participants increased significantly to 275.41 million (BPJS, 2024).

The increasing number of BPJS participants is in line with the increasing number of BPJS patients seeking treatment at the hospital. The increasing number of BPJS Health patients is faced with challenges in providing quality services. The main problem in providing health services for BPJS Health participants is related to the quality of service that has an impact on patient satisfaction, both in terms of health administration services in hospitals and access to the administration of the BPJS Health program itself (Sukartini et al., 2021). This problem is factually evident from the increasing number of inactive BPJS Health participants each year. In addition, there is a gap in the quality of services provided to patients, service coordination between BPJS Health and Hospitals, and the capacity of medical personnel resources (Anggraeni et al., 2020; Khoirunurrofik & Raras, 2021).

Increasing the accessibility of services through BPJS Kesehatan is not sufficient to overcome the various health problems faced (Anggraeni et al., 2020; Werdhani, 2017; Widada et al., 2017), but it is necessary to improve the quality of services in hospitals as the main health service providers. Hospitals and their components are the middle and micro levels of the health system that are in direct contact with patient health problems (Werdhani, 2017). Good service quality not only

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contributes to the effective handling of health problems but also has a direct impact on patient satisfaction. When patients feel that they are receiving quality services, their experience in the hospital will be more positive, thereby increasing the level of satisfaction.

Patient satisfaction is one of the main factors in determining the success of health care providers and is a benchmark for evaluating the effectiveness of services provided in hospitals (Manzoor et al., 2019). Patient satisfaction is defined as the comparison between patient expectations of a service and perceptions of the service received (Santos-Jaén et al., 2022). This satisfaction is reflected when patient expectations regarding the quality of service received are met (Alibrandi et al., 2023). When patients feel their expectations are met, they tend to have a positive perception of the service provided, which can create greater trust in the service provider. In this context, patient satisfaction is highly dependent on the quality of health services provided where patients feel that the service provider provides better services, meets medical standards, and is reliable (Karasan et al., 2022; Rauf et al., 2024).

As users of services, the public certainly expects the provision of optimal and quality health services from health service providers. This needs to be a concern for hospitals as health service providers to continue to improve the quality of their services in order to meet patient expectations and create a sustainable positive experience. Service quality is generally defined as the balance between the benefits and disadvantages arising from services and the improvement or improvement of the patient's quality of life and life expectancy and efficiency of the service process (Schwartz, 2017). From a management perspective, service quality is a characteristic and form of service that determines the extent to which the service can affect patient satisfaction (Prada-García & Benítez-Andrades, 2022). Thus, good service quality does not only focus on the service itself, but also on a deep understanding of what customers want.

According to Tian (2023), high quality health services can meet the emotional and psychological needs of patients, which are focused on the patient's pleasant experience and the effectiveness of medical treatment for health problems experienced by patients. Providing quality services will encourage good communication and trust between patients and medical personnel, leading to better care. In this case, service quality affects the relationship between medical personnel and patients and has an impact on patient satisfaction. Alghamdi (2014) suggests that to improve service quality so as to produce patient satisfaction, hospitals need to focus on the doctor-patient relationship by prioritizing interpersonal relationship skills for doctors in serving patients. Wang et al. (2022) found that patient perceptions of service quality significantly influenced the improvement of doctor-patient relationships. The importance of service quality to the doctor-patient relationship is supported by interaction and communication during the service process which results in trust and emotional relationships

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between doctors and patients so that it affects increased satisfaction with the service (Nguyen et al., 2021).

Meanwhile, the quality of health services cannot be separated from patient characteristics, which are defined as characteristics or conditions inherent in a person, both sociodemographic and health characteristics or conditions of the patient (Keij et al., 2024). According to Cahyani et al. (2021), patient characteristics are unique characteristics of the patient, which distinguish one patient from another. These characteristics include age, gender, education level, socioeconomic status, and changes in health status, as well as treatment outcomes (Akthar et al., 2023). Patient characteristics are seen as important factors in the doctor-patient relationship, especially patient characteristics are a reference in making joint decisions between doctors and patients regarding the type of treatment to be taken (Keij et al., 2022). For example, age and health conditions can affect the choice of therapy or dose of drugs used, while socioeconomic factors can affect access to health services and adherence to treatment.

Patient-oriented service is one of the main goals of the health care system and is the key to service quality to improve patient satisfaction (Navidad et al., 2018). Patient-focused health care is reflected in the relationship between doctors and patients in the service delivery process (Werdhani, 2017). The doctor-patient relationship according to Chipidza et al. (2015), is a consensual relationship in which the patient consciously seeks help from a doctor and where the doctor consciously accepts him as a patient. In this relationship, the doctor agrees to respect the patient, maintain patient confidentiality, explain medical care options, obtain consent, provide the best standard of care, and commit not to neglect the patient. A harmonious doctor-patient relationship needs to be achieved to prevent problems that arise from the consequences of the medical treatment carried out (Li et al., 2024).

The doctor-patient relationship bridges the patient's assessment of the quality of services provided by the hospital which can ultimately affect patient satisfaction. According to Salim et al. (2023), the interaction between doctors and patients is a medium for patients to assess the doctor's expertise in care and in communicating information related to the patient's health condition. In addition, patients also assess the doctor's attitude in the consultation process and medical intervention (Asare et al., 2024; Forsey et al., 2021; Santos-Jaén et al., 2022). Thus, the interaction between doctors and patients in the provision of health services is a measure of how good the quality of health services provided by the hospital is (Asare et al., 2024). Patient evaluation of the provision of these services then becomes a measure of their level of satisfaction (Santos-Jaén et al., 2022).

This study focuses on outpatient services for BPJS Kesehatan patients at Hospital X. Outpatient services are the backbone of the health care system by providing initial and ongoing treatment to patients without requiring inpatient services. Analysis of outpatient services according to Aeenparast et al. (2021) can show how every aspect of the service is considered and improved, so that the

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patient experience becomes better and more efficient. On the other hand, it is important to understand how BPJS patient satisfaction is influenced by the factors that shape their experience in receiving health services, because these factors play an important role in overall satisfaction and perceptions of the quality of health services. In this context, outpatient services are very important for BPJS Kesehatan patients and health care providers. By minimizing resource allocation in hospitals, reducing unnecessary hospitalizations, and shortening waiting times, this service can improve patient satisfaction, hospital operations and reduce costs (Azam et al., 2023; Jin et al., 2021).

Therefore, this study analyzes the relationship between the quality of outpatient services and patient characteristics on BPJS patient satisfaction at Hospital X mediated by the doctor-patient relationship. By focusing on these factors, this study provides an overview of how improving supporting elements of patient satisfaction can help in developing effective health strategies and policies. In addition, this study is relevant in describing the importance of patient satisfaction, improving hospital operations, and increasing hospital competitiveness in the health service market. The results of this study are expected to provide a strong foundation for better decision making at the hospital management level.

METHOD

The objects of this study are patient satisfaction, service quality, patient characteristics, doctor-patient relationship and patient satisfaction. The unit of analysis in this study is outpatients of BPJS Kesehatan participants who seek treatment at a health facility, Hospital X. This research is a type of descriptive-quantitative research with a cross-sectional survey research design that investigates variables in descriptive form based on representative samples or sub-samples of the population of interest that are asked at one point in time (Bowling, 2023).

In this study, the number of samples was determined using the Hair formula, namely the number of Indicators multiplied by 5 and obtained 215 respondents. Hair et al. (2019) also explained that the sample size in SEM (Structural Equation Model) analysis if there are more than 20 indicators, then the sample size is between 100-200. Based on the calculation above, the sample used in this study was 215 respondents. However, to reduce the error rate, the researcher used the total number of respondents who met the research criteria, namely 294 respondents. The sample in the study was the entire population selected and determined based on the purposive sampling technique. The criteria for determining the sample by purposive sampling are as follows: (1) outpatients who receive treatment at hospital X; (2) patients aged between 17-60 years; (3) patients who did not experience pressure during data collection through surveys. The data collection method used in this study was a survey through a questionnaire instrument to obtain primary data directly from respondents. The questionnaire was run online through a Google Form link that was distributed to outpatients of

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BPJS participants who were treated at Hospital X.

Service quality is measured through technical, interpersonal, outcome, access/waiting time dimensions adapted from Abbasi-Moghaddam et al. (2019). Respondent characteristics are measured through the dimensions of age, gender, occupation, and education level based on the Ministry of Health in 2009 and Law of the Republic of Indonesia No. 20 of 2003. Doctor-patient relationships are measured through the dimensions of communication, knowledge, trust, loyalty, attention adapted from Chipidza et al. (2015) and Al-Shura (2019). Patient satisfaction is measured through the dimensions of performance expectancy, effort expectancy, social influence, price value adapted from Pramudita et al. (2023) and (Vidal-Silva et al., 2024).

Data analysis in the study used Partial Least Squares Structural Equation Modeling (PLS-SEM) with the help of SmartPLS 4.0 software. PLS-SEM was chosen for data analysis because this technique can test the relationship between constructs and observed variables (Henseler & Schuberth, 2023). In addition, PLS-SEM has the advantage of estimating complex models with many constructs, indicator variables, and structural paths without imposing distributional assumptions on the data and a causal-predictive approach to SEM that emphasizes prediction in estimating statistical models, whose structure is designed to provide an explanation of the relationship between variables (Hair et al., 2019).

RESULT and DICUSSION

Respondent Characteristics

The majority of respondents are in the 26-31 age group at 32.99%, followed by the 36-45 age group at 28.23%. Meanwhile, the 17-25 and 46-55 age groups are only 19.39%. The majority of respondents are women at 57.48% and the rest are men at 42.52%. The majority of respondents have jobs as private employees at 22.79%, respondents with jobs as civil servants/BUMN/BUMD at 19.73%, housewives 15.31%, self-employed 14.63%, students 10.5%, laborers 9.9%, retirees 3.4%, students 1.7%, doctors 0.7%, midwives, honorary teachers, medical personnel and the Indonesian Army each at 0.3%. The majority of respondents have a higher education background (D1/D2/D3, D4/Bachelor, S2/Masters/Profession, S3/Doctorate) of 54.4%, followed by SMA/MA, SMK/MAK 34.4%, then SD/MI, SMP/MTs 8.2%, and the fewest are those who did not attend school or did not graduate from elementary school of 3.1%.

RESEARCH RESULT

Validity And Reliability

Tabel. 1 Validity And Reliability Testing

Item and Constructs	Outer Loading	Item and Constructs	Outer Loading
Patient Satisfaction (CA= 0.989, CR= 0.989, AVE= 0.862)			
KP1	0.935	KP9	0.940
KP2	0.928	KP10	0.944
KP3	0.931	KP11	0.939

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Item and Constructs	Outer Loading	Item and Constructs	Outer Loading
KP4	0.936	KP12	0.850
KP5	0.943	KP13	0.919
KP6	0.945	KP14	0.914
KP7	0.942	KP15	0.912
KP8	0.943		
Doctor-patient relationship (CA= 0.990 CR= 0.991, AVE= 0.892)			
KHDP1	0.943	KHDP8	0.950
KHDP2	0.957	KHDP9	0.945
KHDP3	0.936	KHDP10	0.947
KHDP4	0.935	KHDP11	0.943
KHDP5	0.938	KHDP12	0.953
KHDP6	0.950	KHDP13	0.947
KHDP7	0.935		
Quality of Outpatient Services (CA= 0.990, CR= 0.991, AVE= 0.875)			
KLRJ1	0.932	KLRJ9	0.948
KLRJ2	0.930	KLRJ10	0.940
KLRJ3	0.929	KLRJ11	0.944
KLRJ4	0.927	KLRJ12	0.933
KLRJ5	0.947	KLRJ13	0.941
KLRJ6	0.949	KLRJ14	0.916
KLRJ7	0.952	KLRJ15	0.912
KLRJ8	0.933		
Patient Characteristic (CA= 0.944, CR= 0.960, AVE= 0.857)			
Jenis Kelamin	0.946	Tingkat Pendidikan	0.897
Pekerjaan	0.934	Umur	0.925

Notes: CA = Cronbach Alpha, CR= Composite Reliability AVE= average variance extracted.

The table above shows that the variables patient satisfaction, doctor-patient relationship, quality of outpatient services, and patient characteristics all have outer loading values > 0.7 so that all are declared valid and able to measure what is intended to be measured. Table 1 also shows that all variables have Cronbach's Alpha and Composite Reliability values greater than 0.7 so that all variables in this study are considered reliable and tend to be stable when used at a later time. All variables also have AVE values above 0.5 so that each variable is declared valid.

Discriminant Validity

Table 2. Discriminant Validity

	Grit	Job Satisfaction	Nurses Performance	Organizational Commitment
Doctor-patient relationship				
Patient Characteristic	0.812			
Patient Satisfaction	0.804	0.855		

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Quality of Outpatient Services	0.864	0.845	0.885

The results of the HTMT analysis show that all constructs in this study have acceptable discriminant validity with HTMT values for all variables <0.90. The discriminant validity threshold value of 0.90 for the structural model is acceptable if the constructs are conceptually very similar (Hair et al., 2019; Henseler et al., 2015). Thus, all constructs in this study support the discriminant validity of the measurement instruments used.

Inner Model

Variance Inflation Factor

Table 3. Variance Inflation Factor

	VIF
Doctor-Patient Relationship → Patient Satisfaction	9,311
Patient Characteristic → Doctor-Patient Relationship	6,116
Patient Characteristic → Patient Satisfaction	6,159
Quality of Outpatient Services → Doctor-Patient Relationship	6,116
Quality of Outpatient Services → Patient Satisfaction	6,246

In the table above, it can be seen that all influences between variables have a VIF value of less than 10 so that there is no correlation between indicators. From the results of the multicollinearity test, it can be concluded that all variables pass the multicollinearity test because they have a value less than VIF 10.

R Square

Coefficient of Determination (R2) in PLS-SEM is used to explain how well the structural model built can explain the variance of endogenous (dependent) variables. The adjusted R^2 value is used to explain how strongly the exogenous variables explain the endogenous variables in the model.

Table 4. R Square

Variable	R Square
Doctor-Patient Relationship	
Patient Satisfaction	

The R Square value is used to measure how much influence a particular independent latent variable has on the dependent latent variable. The magnitude of the influence of the independent variables (quality of outpatient services and patient characteristics) on the doctor-patient relationship is 0.912 or 91.2% and the remaining 8.8% is influenced by factors outside the study. The influence of the quality of outpatient services, patient characteristics, doctor-patient relationships on Patient Satisfaction is 0.811 or 81.1% and the remaining 18.9% is due to other factors.

F Square

The F-square (f^2) test in PLS-SEM (Partial Least Squares Structural Equation Modeling) is used to measure the local effect size or the effect of changes in the R^2 value when an independent variable is removed from the model. This helps identify how much influence the independent variable has on the dependent variable

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in the structural model. The F-square (f^2) test shows the local effect size to see how much contribution an independent variable has to the dependent variable in the structural model. Specifically, this test shows how much change in R^2 (coefficient of determination) occurs when one predictor variable is removed from the model. If the f^2 value is high, it means that the independent variable has a significant influence on the dependent variable. Conversely, a small f^2 value indicates that the variable has a small influence. The f^2 results are interpreted based on the following criteria (Cohen, 2013): $f^2 \geq 0.02$: Small effect size; $f^2 \geq 0.15$: Medium effect size; $f^2 \geq 0.35$: Large effect size

Table 5. F Square

Variabel	Doctor-Patient Relationship	Patient Characteristic	Patient Satisfaction	Quality of Outpatient Services
Doctor-Patient Relationship			0,193	
Patient Characteristic	0,007		0,012	
Patient Satisfaction				
Quality of Outpatient Services	1,493		0,009	

Table 5 shows the magnitude of the effect of the independent variable on the dependent variable. The effect of doctor-patient relationship on patient satisfaction obtained an f-square value of 0.193 (moderate effect). The effect of patient characteristics on patient satisfaction obtained an f-square value of 0.012 (no effect). The effect of quality of outpatient services on patient satisfaction obtained an f-square value of 0.009 (no effect). The effect of patient experience and quality of outpatient service on doctor-patient relationship obtained an f-square value of 0.007 (no effect) and 1.493 (large effect size), respectively.

Hypothesis Testing

Table 6. Hypothesis Testing

	Standard Coefficient	T Statistics	P Value	Decision
Quality of Outpatient Services → Doctor-Patient Relationship	0,885	26,687	0,000	Accepted
Patient Characteristic → Doctor-Patient Relationship	0,005	0,165	0,869	Rejected
Doctor-Patient Relationship → Patient Satisfaction	0,809	28,490	0,000	Accepted
Quality of Outpatient Services → Doctor-Patient Relationship → Patient Satisfaction	0,715	18,675	0,000	Accepted
Patient Characteristic → Doctor-Patient Relationship → Patient Satisfaction	0,004	0,165	0,869	Rejected

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The influence of the quality of outpatient services on the doctor-patient relationship of BPJS participants at Hospital X

Service quality is a measure of the extent to which a health service meets the standards expected by patients. The quality of health services plays a very important role in building and maintaining a good relationship between doctors and patients. In the context of this study, the positive impact of service quality on the doctor-patient relationship is reflected in the results of the structural model analysis, which shows that service quality has a positive and significant effect on the doctor-patient relationship ($\beta = 0.885$, $t = 26.687$, $p < 0.05$). This means that the better the patient's perception of the quality of service at Hospital X, the stronger the relationship between the doctor and the patient. Thus, it can be concluded that Hypothesis 1 is accepted.

The results of this study indicate that better service quality, including technical quality, interpersonal, outcome, appropriate access/waiting time in providing services can strengthen the bond between doctors and patients. This empirical finding is consistent with research conducted by Shie et al. (2022) which revealed that service quality can improve the quality of interactions between patients and doctors. When patients experience good service, they feel more appreciated and cared for and have more confidence in the doctor's abilities. This trust is reflected in the descriptive analysis which explains the high constructive patient confirmation of the treatment results. A strong relationship between doctor and patient and good communication from the doctor can encourage patients to be more open in sharing information about their health conditions, cooperate in following medical advice, talk about good relationships between themselves and their doctors, and return to using health services at the hospital (Gala et al., 2022). Good patient perceptions of service quality in this study reveal the importance of hospital management in maintaining and improving service quality, so that the relationship between doctors and patients becomes stronger.

The influence of patient characteristics on the doctor-patient relationship of BPJS participants at Hospital X

The results of the structural model analysis showed that patient characteristics did not have a positive and significant effect on the doctor-patient relationship ($\beta = 0.005$, $t = 0.869$, p □ 0.05). This means that patient demographic characteristics, especially education level, did not show a significant effect on the quality of the relationship between doctors and patients in the context of this study. Thus, Hypothesis 2 is rejected.

Patient characteristics are a description of the sociodemographic conditions of the patients studied. The results of this study are supported by research conducted by Mullen & Habib (2022) which explains that although the direction of the relationship between patient characteristics and the doctor-patient communication relationship is positive, the relationship is not significant. The pattern of communication between doctors and patients is not influenced by the patient's sociodemographic factors, but is likely more influenced by the doctor's communication style and skills

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that adapt to the patient's needs and preferences. In this context, patients perceive that doctors at Hospital X have good communication skills, so whatever the patient's education level, the doctor will still provide information in a way that is considered most effective to ensure that the patient understands the information provided. Doctors who have good communication skills can usually adjust their communication style, not only based on the patient's sociodemographics, but also by considering the patient's emotional and psychological needs at that time. Research conducted by Mostafapour et al. (2024), Lazcano-Ponce et al. (2020), and Centeno-Gándara (2021) stated that patient characteristics are not a strong factor in influencing how doctors and patients interact during treatment or consultation, but rather factors related to service quality, both technical quality factors, interpersonal, outcome and service access. These factors are manifested in the empathy shown, the way doctors communicate, concern, and clarity of information related to patient health.

The influence of doctor-patient relationships at Hospital X on BPJS patient satisfaction

In this study, the doctor-patient relationship was proven to have a significant influence on the satisfaction of BPJS participant patients who were treated at Hospital X. The results of the analysis showed that the path coefficient value (β) = 0.809, with a t value = 28.490 (t> 1.970) and p <0.05, which means that the doctor-patient relationship has a significant positive influence on patient satisfaction. The results of this study indicate that the better the doctor-patient relationship, the more satisfied the patient is with the services provided.

These empirical findings confirm the research conducted by Zakaria et al. (2024), that the doctor-patient relationship determines patient satisfaction with the health services provided. The relationship between the doctor-patient relationship and patient satisfaction is also supported by research conducted by de Waard et al. (2018) and (Świątoniowska-Lonc et al., 2020), which revealed that doctor-patient communication has a significant impact on patient satisfaction, both from various age groups and those with various types of diseases.

The doctor-patient relationship is very important in the nursing process and the expected outcomes. When doctors are able to recognize patient concerns regarding their health conditions, and can meet patient expectations regarding the care provided, this can increase patient satisfaction levels. In addition, in interactions during consultations and examinations, patients feel more appreciated and listened to when doctors give them the opportunity to convey information regarding their conditions or complaints. This can create good two-way communication, which not only helps doctors in diagnosis, but also increases patient trust and satisfaction. Therefore, the active involvement of doctors in listening to patient complaints, providing sufficient information, providing medical advice and stages of treatment, greatly affects patient satisfaction with the outpatient services they receive.

The influence of outpatient service quality on BPJS participant patient

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satisfaction, mediated by doctor-patient relationships at Hospital X

Good service quality can not only strengthen the doctor-patient relationship, but also indirectly affect patient satisfaction. The results of the study showed that service quality has a positive and significant effect on patient satisfaction, which is mediated by the doctor-patient relationship (β = 0.715, t = 18.675, $p < 0.05$). This empirical finding confirms that Hypothesis 4 in this study is accepted.

In the interaction between doctors and patients, the attitude, behavior and good communication of the doctor and vice versa from the patient, are important factors to strengthen the accessibility factor explaining the outcome of medical examinations. Empirical research by Wang et al. (2023) explains that hospitals that develop doctor-patient communication can strengthen patient perceptions of the quality of service provided, which in turn can have a positive impact on patient satisfaction. This finding is also in line with other studies that emphasize that the doctor-patient relationship, in addition to being based on effective communication, must also be based on mutual trust, loyalty, empathy (Wu et al., 2022).

In this study, high patient perceptions of the doctor-patient relationship are emphasized on the doctor's ability to provide health information, plan treatment, and handle patient complaints. Communication between doctors and patients is also formed in two directions, so that doctors not only play an active role in explaining the patient's condition, but patients are also given the opportunity to express their questions and concerns. These findings indicate that at Hospital X, patient perceptions of doctors are positive, both in terms of medical and non-medical skills. Therefore, the quality of the doctor-patient relationship reflects the quality of service provided, which in turn makes patients feel satisfied with the service received. By improving the quality of hospital services, the doctor-patient relationship can be strengthened, which ultimately contributes to increased patient satisfaction.

The influence of patient characteristics on BPJS participant patient satisfaction, which is mediated by the doctor-patient relationship at Hospital X.

The results of the research hypothesis test indicate that patient characteristics are not significantly related to patient satisfaction, which is mediated by the doctor-patient relationship. The structural model analysis produces a path coefficient value (β) = 0.004, t = 0.165, $p > 0.05$, which indicates that there is no significant relationship between patient characteristics and patient satisfaction through the doctor-patient relationship as a mediator. Thus, Hypothesis 5 is rejected.

In the doctor-patient relationship, identifying patient characteristics is an important step to ensure more effective care and better communication, considering that each patient has different needs, preferences, and backgrounds. Patient characteristics such as age, gender, education level, and other factors can influence the way the patient and doctor interact, which in turn can affect patient satisfaction with the services provided. However, in this study, it was found that the doctor-patient relationship failed to

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bridge the relationship between patient demographic characteristics and patient satisfaction. This phenomenon was also found in studies conducted by Lu et al. (2021), Radu et al. (2018), and (Zarzycka et al., 2019) which showed that patient demographic characteristics had a weak relationship with patient satisfaction, both directly and indirectly.

The doctor-patient relationship emphasizes the information provided by the doctor to the patient, the doctor's communication method, the doctor's attitude, and behavior during the provision of services. In the context of Hospital X, the doctor-patient relationship pays attention to the emotional and psychological needs of the patient, both during examination and consultation. This shows the importance of other factors that influence patient satisfaction through the doctor-patient relationship. In this study, service quality is a more dominant factor in determining the doctor-patient relationship and patient satisfaction. In addition to service quality, research conducted by Birkeland et al. (2022) and Legler et al. (2019) revealed that in the consultation and examination process, the patient's health and personality characteristics have a greater influence on the doctor-patient relationship and patient satisfaction.

CONCLUSION

This study concludes that service quality has a positive and significant effect on the doctor-patient relationship. Patient characteristics do not significantly affect the doctor-patient relationship. The doctor-patient relationship has a positive and significant effect on patient satisfaction. Service quality has a positive and significant effect on patient satisfaction mediated by the doctor-patient relationship. Patient characteristics do not significantly affect patient satisfaction through the mediation of the doctor-patient relationship.

This study presents important information that needs to be considered by the management of Hospital X in an effort to improve patient satisfaction with the health services provided. The findings of this study indicate that service quality is a key factor that has been empirically proven to have a positive and significant impact on the doctor-patient relationship. Hospitals that focus on improving the quality of their services, especially in outpatient services, will provide a positive experience for BPJS participant patients during treatment, as well as improve the medical and non-medical abilities of doctors.

The relationship between doctor and patient is an important factor in shaping the positive patient experience during the process of providing outpatient health services in hospitals. This relationship reflects the patient's perception of the doctor's attitude, behavior, concern, and medical knowledge and skills, which in turn affects patient satisfaction with the services received. The doctor-patient relationship also strengthens every aspect of service quality so that it can increase patient satisfaction. These findings can be a reference for hospitals to prioritize improving the quality of the doctor-patient relationship, with a focus on effective communication skills, empathy, and doctor professionalism during consultations,

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examinations and medical procedures. By focusing on developing these aspects, patients can feel satisfied with the hospital's performance and efforts to provide maximum health services. In addition, the quality of service received and good interactions between doctors and patients can be disseminated and recommended by patients to others.

Further research can add dimensions of patient characteristic measurement, by considering patient economic level, income, marital status, residence and others. Suggestions for further research are to conduct larger sample collection in several hospitals, both government and private hospitals. The addition of other variables, such as patient loyalty, patient trust and work environment, is also suggested to be carried out in order to capture a more comprehensive assessment of factors that influence patient satisfaction.

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