

Exploring the Nexus between People, Physical Evidence, Satisfaction, and Loyalty in Healthcare Services

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ABSTRACT

This study offers a comprehensive approach to exploring factors influencing patient satisfaction and loyalty in hospitals. By focusing On Santosa Hospital Bandung Central's Inpatient Installation. This study provides distinctive and contextual insights into the role of human resources and physical evidence in determining patient perception and behavior. Unlike previous studies that focused on common factors, this study delves deeply into how the interaction between aspects of human services and the physical environment contributes to patient satisfaction and, ultimately, affects their loyalty to the hospital. The research method used is Verification Analysis. Data collection using questionnaires, and sampling techniques using consecutive sampling with respondents taken by 100 patients. Data collection in the field was carried out in 2023—data analysis techniques using the Path Analysis. The results showed that people and physical evidence simultaneously affected patient satisfaction. Furthermore, the effect of physical evidence on patient satisfaction both directly and indirectly indicates that the better the physical evidence seen by patients, the more patient satisfaction will increase, while people and physical evidence together affect loyalty, and satisfaction influences patient loyalty at Santosa Hospital Bandung Central Inpatient Installation.

Keywords : **Human Resource; Physical Evidence; Satisfaction; Patient Loyalty; Healthcare Services**

ABSTRAK

Penelitian ini menawarkan pendekatan yang komprehensif untuk mengeksplorasi faktor-faktor yang mempengaruhi kepuasan dan loyalitas pasien di rumah sakit. Dengan berfokus pada Instalasi Rawat Inap Santosa Hospital Bandung Central. Penelitian ini memberikan wawasan yang khas dan kontekstual tentang peran sumber daya manusia dan bukti fisik dalam menentukan persepsi dan perilaku pasien. Tidak seperti penelitian sebelumnya yang berfokus pada faktor-faktor umum, penelitian ini menggali lebih dalam bagaimana interaksi antara aspek layanan manusia dan lingkungan fisik berkontribusi pada kepuasan pasien dan, pada akhirnya, mempengaruhi loyalitas mereka terhadap rumah sakit. Metode penelitian yang digunakan adalah Analisis Verifikatif. Pengumpulan data menggunakan kuesioner, dan teknik pengambilan sampel menggunakan consecutive sampling dengan responden yang diambil sebanyak 100 orang pasien. Pengumpulan data di

lapangan dilakukan pada tahun 2023 teknik analisis data menggunakan Analisis Jalur. Hasil penelitian menunjukkan bahwa orang dan bukti fisik secara simultan berpengaruh terhadap kepuasan pasien. Selanjutnya pengaruh bukti fisik terhadap kepuasan pasien baik secara langsung maupun tidak langsung menunjukkan bahwa semakin baik bukti fisik yang dilihat oleh pasien maka kepuasan pasien akan semakin meningkat, sedangkan sumber daya manusia dan bukti fisik secara bersama-sama berpengaruh terhadap loyalitas, dan kepuasan berpengaruh terhadap loyalitas pasien di Instalasi Rawat Inap Pusat Santosa Hospital Bandung.

Kata Kunci : Sumber Daya Manusia; Bukti Fisik; Kepuasan; Loyalitas Pasien; Layanan Kesehatan

INTRODUCTION

Human Resources are directly related to employees and medical personnel who deal directly with patients, whose job is to provide care provide information serve patient needs, and ensure patient needs can be met. Physical evidence is where the service is created, where the service provider and consumer interact, plus any tangible elements used to communicate or support the role of the service. Patient satisfaction is the main goal for hospitals related of the current competition in the health service industry is getting tighter, which requires hospital management to pay more attention to the marketing aspects of a hospital. Service is a system consisting of two main components, namely service operation and service delivery. Lovelock (2016) stated that a service operating system is a backroom system of a product that supports the product or service guaranteed reliability and availability. The backroom system is supported by individuals who have core competence or technical core expertise that is not visible to customers. Service as a service delivery system is a product delivery system that deals directly with customers. The relationship between service delivery and perceived value is that quality service delivery will increase value for customers so that it will create satisfaction which can ultimately increase customer loyalty. (Dougall, Gordon, and Levesque, 2016; Bimo, 2022) the relational quality of services, and perceived value have a significant effect on customer satisfaction and interest in reuse in the future.

This study offers a comprehensive approach to exploring the factors that influence patient satisfaction and loyalty in hospitals. By focusing on Santosa Hospital Bandung Central's inpatient installation, this study provides distinctive and contextual insights into the role of human resources and physical evidence in determining patient perception and behavior. Unlike previous studies that tended to focus on common factors, this study delves deeply into how the interaction between aspects of human services and the physical environment contributes to patient satisfaction (Baihaqi et al., 2023). The findings of this study are expected to have valuable practical implications for hospital management in Indonesia in designing more effective service strategies to build long-term relationships with patients. This study not only focuses on patient satisfaction but also examines the implications for patient loyalty, which is an important result for hospital sustainability. Thus, this research can provide more relevant insights for practitioners and academics in Indonesia, especially in the context of hospitals, which have different characteristics and dynamics compared to other countries.

RESEARCH METHOD

This study used a quantitative approach with verification statistical analysis techniques. Descriptive analysis techniques are statistics used to analyze data by describing or describing the data that has been collected as it is without intending to make generalized conclusions or generalizations (Sugiyono, 2020). Thus, the Verification method is to check whether it is true or not if it is explained to test a method correctly or without improvements that have been implemented elsewhere by overcoming problems similar to life. Verification nature is to want to test the truth of a hypothesis, and research using relevant statistical tests carried out through data collection in the field. This study was conducted to determine the effect of Human Resource and physical evidence on satisfaction and its implications for patient loyalty based on quantitative data collected through questionnaires distributed to patients at the Inpatient Installation of Santosa Hospital Bandung Central Hospital, then this data will be carried out with statistical analysis.

Valid indicates the degree of permanence between the data that occurs in the object and the data that can be collected by the researcher (Sugiyono, 2020). Research results are valid if there are similarities between the data collected and the data that occurs in the object studied. A valid instrument means that the measuring instrument used to obtain data (measure) is valid. Valid means that the instrument can be used to measure what it is supposed to measure. Reliability Test, Reliability relates to the degree of consistency or accuracy of data in a certain time interval (Sugiyono, 2020). The analysis method used in this study is Path Analysis. According to Juanim (2020), Path analysis can be interpreted as a statistical technique that extends traditional regression models to examine causal relationships between variables. This method allows researchers to assess the direct and indirect effects of one variable on another, providing a more comprehensive understanding of the underlying dynamics within a given framework. By specifying a model that includes multiple variables and their interconnections, path analysis helps identify how changes in one variable can influence others in the system. In essence, path analysis uses a series of regression equations to represent the relationships among variables. It enables the evaluation of both direct paths, where one variable directly affects another, and indirect paths, where the effect is mediated through one or more intervening variables. This approach is particularly useful in fields such as social sciences, psychology, and healthcare, where understanding complex relationships is crucial for effective decision-making and interventions

The causal relationship system involves two types of variables, namely independent variables better known as independent variables, and bound variables or influenced variables, known as dependent variables. In path analysis, the independent influence of the variable on the dependent variable can be in the form of direct and indirect influences or in other words path analysis takes into account the presence of direct and indirect influences. Meanwhile, according to Riduwan (2014), the path analysis model is used to analyze the relationship between variables to determine the direct and indirect influence of a set of independent variables (exogenous) on the dependent variable (endogenous)

RESULTS AND DISCUSSION

Results and discussion of research conducted at Santosa Hospital Bandung Central Inpatient Installation on "The Effect of Human Resource and Physical Evidence on Satisfaction and Implications for Non-BPJS Patient Loyalty at Santosa Hospital Bandung Central Inpatient Installation". More details about the research can be seen in the following sub-sub-chapters:

Simultaneous Hypothesis

To test whether the variables of Human Resource and physical evidence simultaneously affect patient satisfaction, it is tested through F, where F can be calculated through the following formula. For testing the overall path coefficient, we first make a test hypothesis, namely: H_0 : There is no effect of Human Resource and physical evidence on patient satisfaction. H_1 : At least there is a $\rho_{YX_i} \neq 0$; $i = 1, 2$ There is an influence of Human Resource and physical evidence on patient satisfaction. By using SPSS 25, the F calculate value and significance value are obtained as displayed in Table 1.

Table 1. Anova Test

		ANOVA ^b				
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	212.078	2	106.039	97.773	.000 ^a
	Residual	92.186	97	1.085		
	Total	304.264	100			

Predictors: (Constant), Human Resource, Physical evidence

Dependent Variable: Satisfaction

Source: Processed Data

Based on Table 1, test criteria, "Reject H_0 if $F > F_{\alpha; k(n - k - 1)}$ where from Table F for significance level 0.05 and free degree (2; 100-2-1) obtained $F_{0.05(2; 97)} = 3,156$. Because F calculate > F table, H_0 is rejected at an error level of 0.05, so based on the test results, it can be concluded that with a confidence level of 95%, together (simultaneously) the variables of Human Resource and physical evidence affect patient satisfaction at the Santosa Hospital Bandung Central Inpatient Installation.

Based on significance, if the significance < 0.05 then H_0 is rejected, and if the significance > 0.05 then H_0 is accepted. Because the significance of the F test is less than 0.05 (0.000 < 0.05) then H_0 is rejected (Priyatno, 2012: 138). This means that Human Resource and physical evidence together affect patient satisfaction at the Santosa Hospital Bandung Central Inpatient Installation.

The overall calculation results of the path analysis can be seen in the Figure 1:

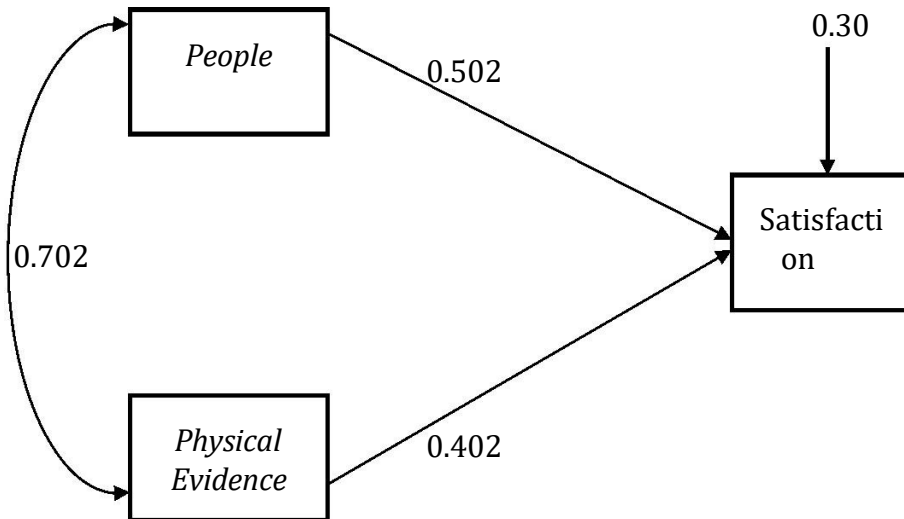


Figure 1.
The Effect of Human Resource and Physical Evidence on Satisfaction

Based on Figure 1 structural causal relationship between variables with the values of the above structural parameters, the influence of the causal variable to the effect variable, both direct and indirect can be determined.

The Effect of Each Variable of Human Resource and Physical Evidence on Patient Loyalty Simultaneously

The calculation results obtained show the influence jointly (simultaneously) and individually (partially) between Human Resource and physical evidence on patient loyalty. In summary, the magnitude of the influence of each variable can be seen in the following Table 2:

Table 2. The Magnitude of Direct and Indirect Influence Human Resource and Physical Evidence of Patient Loyalty

Were	Direct Influence	Indirect influence		Subtotal indirect influence	Total Influence
		X1	X2		
X1	24.01	-	15.22	15.22	39.23
X2	16.24	15.22	-	15.22	31.46

Source: Processed Data

Based on Table 2 it can be seen that simultaneously, Human Resource and physical evidence affect patient loyalty at the Santosa Hospital Bandung Central Inpatient Installation by 70.69%, while the remaining 29.31% is influenced by other factors not studied by the author such as process variables and health service products. However, when viewed partially, Human Resource are more dominant in influencing patient loyalty than physical evidence.

Verification Analysis aims to determine the effect of Human Resource and physical evidence on patient satisfaction at Santosa Hospital Bandung Central Inpatient Installation

and also how much influence the independent variable has on the dependent variable. This study used path analysis. The hypotheses proposed by the authors in this study are: 1). There is an effect of Human Resource and physical evidence on patient satisfaction simultaneously, 2). There is an effect of Human Resource and physical evidence on patient loyalty both simultaneously, and 3). There is an effect of patient satisfaction on patient loyalty.

Based on the results of the study, it can be seen that Human Resource and physical evidence affect patient satisfaction and loyalty both partially and simultaneously and patient satisfaction affects patient loyalty at the Santosa Hospital Bandung Central Inpatient Installation. This result confirms the research conducted by Sa'adah, Hariyanto, and Rohman (2015) showing that service personnel have a positive and significant effect on patient satisfaction, pharmacy services do not affect patient loyalty, and satisfaction has a positive and significant effect on patient loyalty. This study also shows that the quality of service affects patient loyalty indirectly through satisfaction. Furthermore, (Pudyartono and Hasanah, 2017; Fernando, 2024) showed that partial facilities have a significant influence on outpatient satisfaction. Physical evidence consisting of indicators of equipment completeness, building cleanliness, employee appearance, and availability of parking spaces (Vos, et. al., 2018) if applied properly will affect patient satisfaction variables. Patient satisfaction is the level of one's pleasure towards the suitability of service quality, expected service, no complaints or complaints, available services, quality of service and facilities, and performance (Harfika and Abdullah, 2017; Asapdoor and Abolfazli, 2017). These results support the opinion of previous research from (Caesaria, 2015; Sari 2020) about the effect of service quality on patient satisfaction in Community Health Centers (*Pusat Kesehatan Masyarakat/Puskesmas*) stating that there is a positive influence of physical evidence on patient satisfaction. The results of research conducted by (Henry C et al., 2016; Furtado, D., & Salgueiro, 2023), stated that the factors identified as affecting patient satisfaction include queues, queue types, and characteristics, adherence to hospital visits and treatment of specific disease programs, drug dispensing time, nature of disease or disease presentation, patient admission status, implementation of waiting for time rules, facilities, technological automation, and computerization innovations, service efficiency and internal operational factors. (Kiyai, et al., 2017) stated that there is an effect of service in direct evidence on outpatient satisfaction, while the responsiveness dimension and reliability dimension have no relationship with patient satisfaction (Rusydah, et al., 2024).

Having loyal patients is the ultimate goal of the hospital because patient loyalty can guarantee the continuity of the hospital in the long run. Patient loyalty can be interpreted as a person's loyalty to something. The term patient loyalty comes from brand loyalty which reflects patient loyalty to a particular brand. Customer loyalty is a measure of customer attachment to a brand. This measure can give an idea of whether or not patients may switch to another service brand, if the product brand is found to change, both regarding price and other attributes. Patient loyalty is the customer's commitment to a brand, and the image of the hospital, based on a positive attitude and reflected in the consistent return of patients. One example of a positive attitude given by loyal patients includes repurchasing, trying to find products from one hospital service even though they are far away, and also no longer considering other brands to buy other than product brands that are often purchased (Yang, F., & Yuan, J, 2023). Patient loyalty not only increases value in business but can also attract new patients. In the short term, improving patient loyalty

will bring profit to hospital services. In the long run, improving loyalty will generally be more profitable, namely patients are willing to pay higher prices, provide cheaper services, and are willing to recommend to new patients (Rendia, 2023).

Patients making repurchases after using a hospital's products or services is information for hospitals to establish marketing strategies. In general, hospitals use patient satisfaction measures as a standard to monitor patient loyalty. Satisfaction alone will not create patient loyalty without trust. Hospitals often get stuck on the assumption that patient satisfaction is the most important to pay attention to because patient satisfaction will be followed by repeat purchases that will ultimately result in profits for the hospital. This tends to mislead hospitals. Patient satisfaction was only able to explain a quarter of the deviations in repeat buying behavior. Hospital managers need to study and understand various factors that can encourage the building of patient loyalty, not just patient satisfaction. (Isaac and Luthfi, 2017). To increase loyalty, hospitals must increase each patient's satisfaction and maintain that level of satisfaction in the long run. Satisfaction is related to what the patient gets from the hospital compared to what he or she has to do about the affair or interaction. Establishing patient loyalty is generally considered a basic task for hospital managers. Satisfaction is identified as determining the amount of commitment a person has to a relationship that affects loyalty. Providing services to consumers can occur with interactions between consumers and employees, this is an activity or series of invisible activities (Ratminto and Winarsih, 2019). This activity aims as one of the company's efforts to meet the needs of its consumers so that it is following the consumer's desired expectations.

CONCLUSION

Based on the results of research that has been conducted to determine the Effect of Human Resource and Physical Evidence on Satisfaction and Implications for Patient Loyalty at Santosa Hospital Bandung Central Inpatient Installation, several comprehensive conclusions can be drawn. This research shows that there is a significant influence of the factors of Human Resource (human resources) and physical evidence on patient loyalty, both partially and simultaneously. This indicates that the better the patient's perception of the aspects of human service and the physical environment of the hospital, the higher the patient's loyalty will be at the Santosa Hospital Bandung Central Inpatient Installation. Furthermore, the research findings also reveal the influence of patient satisfaction on patient loyalty. This means that the satisfaction felt by patients can drive an increase in their loyalty to Santosa Hospital Bandung Central. Therefore, hospital management must always pay attention to the quality of human resources and the physical condition of the inpatient environment, as both have been proven to play an important role in shaping patient satisfaction and loyalty. Strategic efforts to improve the aspects of Human Resource and physical evidence can be the key for hospitals in building strong long-term relationships with patients, thereby ensuring business sustainability and excellent service.

RECOMMENDATIONS

The recommendation for future research is to expand the scope of research respondents. It is best not only to focus on specific installations at Santosa Hospital Bandung Central but also to research other installations. This will provide a more

comprehensive picture of service quality and patient satisfaction across hospitals. Thus, research results can be more representative and can be used as more accurate evaluation material for service improvement in the future. In addition to expanding the scope of respondents, further research is also recommended to examine the effect of service quality and patient satisfaction on patient loyalty. This will provide deeper insight into the relationship between quality of care, patient satisfaction, and loyalty. Data on the type of patient disease can also be used as additional comparison material to analyze the quality of services provided based on the needs of each type of disease. The drawback of the study is that there is no in-depth analysis of the factors that affect the quality of service and patient satisfaction. Further research can delve deeper into dimensions of service quality and specific indicators of patient satisfaction. This will provide more comprehensive insights to identify areas of improvement that need to be made by the hospital.

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