**The Effect Of Medical And Non-Medical Service Quality On Patient Satisfaction Based On Patient Cognition At XYZ Hospital Jakarta**

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**ABSTRACT**

Patient satisfaction not only reflects their personal experiences, but also becomes a very important indicator for health care providers to reach the extent to which patients' needs, expectations, and preferences are met during the treatment process. This study aims to analyze the effect of medical and non-medical service quality on patient satisfaction. The respondents were 185 patients of XYZ Hospital. The data analysis method used descriptive analysis and PLS-SEM. The results showed that patient cognition, trust, personnel quality, social responsibility had a positive effect on patient satisfaction. While other factors such as medical service procedures, administrative practices, hospital image, safety, infrastructure did not affect patient satisfaction. Hospital management is advised to improve the image of the hospital by carrying out various activities such as blood donation, counseling related to various diseases, visiting surrounding areas for disease prevention socialization, advertising digitally to form a positive image in the community. Further research can be done by increasing the population in other Siloam hospitals in the Jakarta area and limiting between BPJS and non-BPJS patients.

**Keywords: Patient Satisfaction, Patient Cognition, Quality Of Service**

**INTRODUCTION**

Patient satisfaction is one of the critical aspects in evaluating the quality of healthcare services worldwide (Javed & Ilyas, 2018). As individuals who are at the forefront of the medical care process, patient satisfaction not only reflects their personal experience but is also a very important indicator for healthcare providers to evaluate the extent to which patients' needs, expectations, and preferences are met during the care process (El-Haddad et al., 2020).

In practice, patient satisfaction plays a vital role in influencing treatment outcomes and patient recovery (Corner et al., 2019). Patients who are satisfied with their experience tend to have better and faster recovery rates, because positive feelings about the treatment experience can increase their motivation and adherence to the recommended treatment plan (Debono et al., 2019). In addition, patient satisfaction also affects the level of adherence to treatment, where patients who are satisfied with their treatment experience tend to be more obedient to follow medical instructions, follow the schedule of control visits, and make recommended lifestyle changes.

In addition to its impact on individual treatment outcomes, patient satisfaction also has broader implications in the context of a hospital or healthcare institution's reputation (Ocloo et al., 2021). A hospital that is able to provide consistently satisfactory services will build a strong reputation in the community, which will directly or indirectly influence patient choices, support from the medical community, and collaboration with partners in the healthcare sector such as government, insurance, and corporations.

Factors that influence patient satisfaction are complex and involve many different aspects of the healthcare process. Identifying these factors is central to understanding how patient experiences are shaped and how hospitals can improve their services. One of the main factors influencing patient satisfaction is patient cognition, which is the patient's understanding and knowledge of their health condition and the care process they receive (Nurmeksela et al., 2021). Patients who have a good understanding of their condition tend to feel more involved in decision-making about their care, which can increase their satisfaction.

Medical care procedures also have a significant impact on patient satisfaction. The quality and effectiveness of the medical procedures performed can affect the overall patient experience and outcomes (Ofei-Dodoo, 2019). In the United States, the most common procedures performed in emergency medical services are peripheral venous access (28.4%), cardiac monitoring (16.1%), pulse oximetry (13.5%), and blood glucose analysis (10.4%) (Carlson et al., 2016). With so many examples, medical procedures are one of the important factors in increasing patient satisfaction.

In addition, good administrative practices, such as efficiency in scheduling doctor appointments, accurate management of patient information, and effective communication between medical staff and patients, can also improve patient satisfaction (Asif et al., 2019). Previous research found that an average of 64.3% agreed that administrative services were a factor that greatly influenced waiting times, an average of 57.9% agreed that the human resources providing services in outpatient units had provided good services and influenced their waiting times (Tetty & Bone, 2020). The survey found that nearly a quarter of those surveyed reported delays or missed care due to administrative tasks (Herd & Moynihan, 2019). The lengthy process of administrative work can have an impact on patient satisfaction in hospitals.

Other aspects that influence patient satisfaction include hospital images, namely the reputation and public perception of the health institution, and the level of trust or trustworthiness in health services (Asnawi et al., 2019). Other factors such as hospital safety, personnel quality, and social responsibility, hospital image in health practices can also play an important role in shaping patient satisfaction with the health services received (Tan et al., 2019).

This research will be conducted at XYZ Hospital, a health institution committed to providing quality services to the community. In the context of previous research, there is a significant gap that has not been met, especially in terms of exploring the factors that influence patient satisfaction in this hospital. To date, there has been no research that specifically explores the context of XYZ Hospital, resulting in a lack of in-depth understanding of the factors that influence patient satisfaction in this health environment.

In exploring this gap, it should be noted that previous studies have not fully explored the influence of factors such as patient cognition, health practices, hospital image, and social responsibility on patient satisfaction comprehensively (Lu et al., 2021). This indicates an urgent need to fill the knowledge gap in the scientific literature, especially in the context of XYZ Hospital. Therefore, the justification of this study becomes increasingly important and relevant. This study not only aims to fill the gap in knowledge, but also to provide a deeper understanding of the factors that influence patient satisfaction in the context of hospital health services. Therefore, the researcher will conduct a study "The Effect of Medical and Non-Medical Service Quality on Patient Satisfaction Based on Patient Cognition at XYZ Hospital Jakarta".

**METHOD**

This study uses a quantitative causal design. The population of this study is visiting patients at XYZ Hospital whose exact number is unknown. Calculations using other methods are through the inverse square root formula where the minimum number used in the PLS SEM analysis is 160 people (Kock & Hadaya, 2018). However, this study obtained 185 respondents with the assumption that the larger the sample, the more representative the research population (Alwi, 2015). This study uses a purposive sampling technique with the following considerations or criteria: (1) Patients aged at least 18 years; (2) Patients who have received health services at least 1 time; (3) Patients who are willing to be respondents and willing to fill out the questionnaire; (4) Patients who can communicate, read, and write.

The data analysis method uses PLS-SEM with data analysis stages including validity test, reliability test, R Square test, f Square test, and Q Square test. All measuring instruments except patient cognition were adapted from previous research (Tan et al., 2019). The patient cognition measuring instrument was created based on previous research (Leventhal et al., 1992).

**RESULT and DICUSSION**

**Respondent Characteristics**

In this study, the distribution of respondents' gender shows that out of a total of 185 respondents, the majority were female, which was 106 people or 57.3%. Meanwhile, there were 79 male respondents, which is equivalent to 42.7% of the total sample. This shows that the majority of respondents involved in this study were female, with a fairly significant percentage difference compared to males.

The age distribution of respondents in this study shows that the 26–35 age group is the most dominant, with 124 respondents or 67.0% of the total 185 respondents. The age group under 26 years old includes 18 respondents, which is equivalent to 9.7%. Furthermore, the 36–45 age group consists of 30 respondents (16.2%), followed by the 46–55 age group consisting of 11 respondents (5.9%). Finally, only 2 respondents (1.1%) are in the age group over 55 years old. Most respondents are between 26 and 35 years old, indicating that this study may be more relevant to the perspectives and experiences of the younger adult generation. The distribution of respondents' domiciles in this study shows that most respondents come from South Jakarta, with 88 people or 47.6% of the total 185 respondents. Meanwhile, Central Jakarta contributed 17 respondents (9.2%) and West Jakarta and East Jakarta each contributed 13 respondents (7.0%). Respondents from North Jakarta were relatively few, only 5 people (2.7%). In addition, there were 49 respondents (26.5%) who came from other areas outside Jakarta. With the majority of respondents coming from South Jakarta, this may reflect their geographical proximity to XYZ Hospital.

The distribution of respondents' education in this study showed that most respondents had a higher education background, with 173 people or 93.5% having a Bachelor's, Master's, or Doctoral degree. Only 10 respondents (5.4%) had a high school or vocational high school education, while 2 respondents (1.1%) had a junior high school education. The high percentage of respondents with a college education indicates that most respondents have a good educational background.

The distribution of respondents' jobs in this study showed that the majority of respondents worked as private employees, with 88 people or 47.6% of the total 185 respondents. Furthermore, 69 respondents (37.3%) came from health professions, including doctors, nurses, laboratory analysts, and radiographers. Meanwhile, there were 5 housewives (2.7%) and 11 respondents who were self-employed (5.9%). Only 3 respondents (1.6%) were students, and 7 respondents (3.8%) worked in non-health professions such as lawyers and teachers. There were 2 respondents (1.1%) who covered other job categories: The frequency of respondents' visits to XYZ Hospital showed that most respondents, as many as 124 people or 67.0%, visited this hospital between 1 and 3 times. Meanwhile, 21 respondents (11.4%) reported visits between 4 and 6 times. Only 3 respondents (1.6%) visited this hospital 7 to 9 times, while 37 respondents (20.0%) visited this hospital 10 times or more. Thus, the majority of respondents had a relatively low visit experience, with visits more than once, which can provide insight into their level of engagement with the services offered by XYZ Hospital.

**Research result**

**Validity And Reliability**

**Tabel. 1 Validity And Reliability Testing**

| **Item and Constructs** | **Outer Loading** |
| --- | --- |
| **Patient Cognition (CA= 0,929, CR= 0,944, AVE= 0,806 )** | |
| PC1: I knew about (hospital name) before I received medical services. | 0,912 |
| PC2: I knew about the excellence of (hospital name) before I received medical services. | 0,934 |
| PC3: I knew the excellence of (hospital name) was Orthopedics before I received medical services. | 0,846 |
| **Medical Care Procedures (CA= CR= 0,819, AVE=0,739)** | |
| MCP1: I am satisfied with the evaluation at the end of treatment conducted by the doctor at (hospital name). | 0,878 |
| MCP2: I am satisfied with the effectiveness of medical services at (hospital name). | 0,831 |
| MCP3: I am satisfied with the explanation given by the doctor regarding the treatment procedure at (hospital name). | 0,826 |
| MCP4: I am satisfied with the explanation given by the doctor regarding the results of my treatment at (hospital name). | 0,871 |
| MCP5: I am satisfied with the explanation of the surgical or operation procedure by the doctor before and after the procedure at (hospital name). | 0,879 |
| MCP6: I am satisfied with the speed of handling unexpected complications by the medical team at (hospital name). | 0,871 |
| **Administrative Practice (CA= 0,936, CR=0,946, AVE=0,663)** | |
| AP1: I will visit (hospital name) because it is easy to get diagnostic tests. | 0,818 |
| AP2: I will visit (hospital name) if it provides timely service. | 0,699 |
| AP3: I will visit (hospital name) if it provides simple service procedures. | 0,724 |
| AP4: I will visit (hospital name) because it has easy registration procedures with self check-in | 0,858 |
| AP5: I will visit (hospital name) because it has easy doctor appointment procedures with the hospital's own application on a smartphone | 0,837 |
| AP6: I will visit (hospital name) because it provides clear service procedures. | 0,897 |
| AP7: I will visit (hospital name) because it has clear visiting hours. | 0,810 |
| AP8: I will visit (hospital name) because it provides clear information about the hospital's administrative procedures. | 0,811 |
| AP9: I will visit (hospital name) because it provides clear and transparent information about all hospital care costs. | 0,852 |
| **Hospital Image (CA= 0,938, CR= 0,951, AVE= 0,762 )** | |
| HI1: (hospital name) has an important reputation. | 0,849 |
| HI2: (hospital name) is sincere in providing medical services. | 0,874 |
| HI3: (hospital name) is honest in providing medical services. | 0,876 |
| HI4: (hospital name) is ethical in providing medical services. | 0,912 |
| HI5: (hospital name) invests in the latest medical technology. | 0,838 |
| HI6: I feel that my expectations regarding the image of (hospital name) are met. | 0,888 |
| **Trustworthiness (CA= 0,867, CR= 0,909, AVE = 0,714)** | |
| TRUST1: I trust the doctor (hospital name) who treated me. | 0,834 |
| TRUST2: I trust the billing system at (hospital name). | 0,833 |
| TRUST3: I think the service at (hospital name) is reliable. | 0,875 |
| TRUST4: I trust that my confidentiality as a patient is maintained by (hospital name). | 0,838 |
| **Patient Safety (CR= , AVE = 0,797 )** | |
| SFTY1: I think that adequate care procedures carried out by medical personnel at (hospital name) are important to me. | 0,874 |
| SFTY2: I think that hygienic care procedures at (hospital name) are important to me. | 0,880 |
| SFTY3: I think that (hospital name)'s patient safety culture is important. | 0,894 |
| SFTY4: (hospital name) prioritizes patient safety culture behaviors that are the guidelines for all medical personnel. | 0,899 |
| SFTY5: Preventing unwanted events is important to (hospital name). | 0,908 |
| SFTY6: Preventing unpredictable events is important to (hospital name). | 0,900 |
| **Infrastucture (CA = 0,932, CR= 0,946, AVE = 0,745)** | |
| IS1: (hospital name) has clean treatment rooms. | 0,877 |
| IS2: (hospital name) has clean toilets. | 0,833 |
| IS3: (hospital name)'s infrastructure is able to ensure the safety of patients and visitors. | 0,870 |
| IS4: (hospital name) has adequate life support facilities to handle sudden medical conditions. | 0,854 |
| IS5: (hospital name) has medical personnel who are ready to handle sudden medical conditions. | 0,875 |
| IS6: (hospital name) has medical equipment that functions well. | 0,867 |
| **Personnel Quality (CR= , AVE = 0,734)** | |
| PQ1: Medical staff at (hospital name) are polite | 0,880 |
| PQ2: Nurses at (hospital name) care about me. | 0,899 |
| PQ3: Nurses at (hospital name) are responsive to my needs. | 0,864 |
| PQ4: (hospital name) has highly competent doctors. | 0,775 |
| PQ5: (hospital name) has highly skilled doctors. | 0,869 |
| PQ6: (hospital name) has doctors who care and are empathetic to patients. | 0,846 |
| **Social Responsibility (CR= , AVE = 0,747)** | |
| SR1: (hospital name) provides reasonable medical care according to needs | 0,899 |
| SR2: (hospital name) charges affordable fees for patients in need | 0,785 |
| SR3: The ethical principles at (hospital name) in providing medical services to patients from all walks of life without distinguishing between gender, race, and economic status are very important. | 0,872 |
| SR4: I am satisfied with the honesty of the medical staff in explaining the patient's condition. | 0,897 |
| **Patient Satisfaction (CR= , AVE = 0,721)** | |
| PS1: I am satisfied with the values ​​of (hospital name) that prioritize patient recovery | 0,833 |
| PS2: I am satisfied with the quality of service of (hospital name) | 0,842 |
| PS3: I am satisfied with the communication carried out by the medical staff at (hospital name) | 0,900 |
| PS4: I am satisfied with the prices charged by (hospital name) | 0,791 |
| PS5: I am satisfied with the facilities provided by (hospital name) | 0,855 |
| PS6: I am satisfied with the competence of the medical staff at (hospital name) | 0,863 |
| PS7: I am satisfied with the attitude of the medical staff at (hospital name) | 0,857 |
| Notes: CR= Composite Reliability; AVE= average variance extracted. |  |

Based on table 4.1 that has been presented, the outer loading value for all indicators above is 0.708 except for the AP.2 indicator, namely administrative procedure with a loading of 0.699. According to the guidelines, indicators with this value can still be maintained because their values ​​are above 0.4 and do not interfere with the Cronbach alpha and AVE values ​​of the relevant variables (Hair et al., 2019). In addition, these indicators are considered to still have the information value needed to reflect the construct. At this stage, all constructs already have reliable indicators to measure their respective constructs.

Next is the evaluation of outer loading in the third stage by assessing the construct validity of the variable called convergent validity. The reference for the acceptable lower limit value is the average value of the construct variance or average variance extracted (AVE), which is 0.5. A construct in a variable is declared valid if AVE is greater than 0.5 (Hair et al., 2019). In Table 4.1, it is found that all variables in this study have an AVE value greater than 0.5 with the lowest value in administrative practices of 0.663. It can be concluded that all variables are valid for construct assessment.

To test the reliability of the construct, an evaluation was carried out on three parameters, namely Cronbach's alpha, composite reliability, and point of estimate (rho-α) (Hair Jr et al., 2021; Sarstedt et al., 2021). For the Cronbach's alpha value, it has a reference value of more than 0.7, which is the lower bound to be called reliable. Composite reliability has a value range of 0.7 to 0.95. The value of 0.95 is the upper bound, if a composite reliability value is found to be greater than 0.95, it is suspected that there is redundancy in the use of indicators in measuring the same construct (Hair et al., 2019).

**Discriminant Validity**

**Table 2. Discriminant Validity**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Variabel | AP | HI | IS | MCP | PC | PQ | PS | SFTY | SR |
| HI | 0,808 |  |  |  |  |  |  |  |  |
| IS | 0,746 | 0,853 |  |  |  |  |  |  |  |
| MCP | 0,823 | 0,795 | 0,721 |  |  |  |  |  |  |
| PC | 0,677 | 0,753 | 0,765 | 0,715 |  |  |  |  |  |
| PQ | 0,728 | 0,841 | 0,855 | 0,800 | 0,794 |  |  |  |  |
| PS | 0,752 | 0,852 | 0,876 | 0,786 | 0,807 | 0,896 |  |  |  |
| SFTY | 0,743 | 0,760 | 0,789 | 0,680 | 0,681 | 0,782 | 0,832 |  |  |
| SR | 0,799 | 0,863 | 0,870 | 0,792 | 0,789 | 0,871 | 0,952 | 0,849 |  |
| TRUST | 0,773 | 0,888 | 0,896 | 0,765 | 0,802 | 0,926 | 0,944 | 0,829 | 0,942 |

Based on the HTMT values ​​presented and referring to the cut-off of 0.90, it can be seen that most of the HTMT values ​​between variables are below the threshold, indicating good discriminant validity. All are below 0.90, indicating that the constructs can be significantly distinguished from each other. However, there are results showing values ​​approaching the threshold with 0.896 and 0.863, which may indicate overlap between the constructs. On the other hand, there are results showing the highest value of 0.942, which exceeds the limit of 0.90. Referring to the Henseler et al. (2015) guidelines that allow HTMT values ​​up to 0.95, the interpretation of the HTMT values ​​presented shows that most of the relationships between variables are still within acceptable limits.

**Inner Model**

**R Square**

The R-squared (R2) value is used to assess how much influence a particular independent latent variable has on the dependent latent variable. There are three categories of grouping in the R square value, namely the strong category, the moderate category, and the weak category. Hair et al. (2019) stated that an R square value of 0.75 is included in the strong category, an R square value of 0.50 is included in the moderate category and an R square value of 0.25 is included in the weak category. The R-Squared values ​​in this study are as follows:

**Table 3. R Square**

|  |  |  |
| --- | --- | --- |
| Variable | R Square | R Square Adjusted |
| Patient Satisfaction | 0,851 | 0,843 |

Based on table 4.5, the R Square value of 0.851 indicates that the proposed model explains about 85.1% of the variance in patient satisfaction. This value is included in the strong category, indicating that the model has high predictive power against the dependent variable.

**F Square**

The f square value in this study shows the magnitude of the relative influence of the independent latent variable on the dependent latent variable. The f square assessment criteria are as follows: <0.02 has no effect; 0.02≤ f ≤ 0.15 = small effect; 0.15 ≤ f ≤ 0.35 = medium effect, f ≥ 0.35 = large effect (Henseler et al., 2016). The effect size value can be seen in the table below:

**Table 4. F Square**

|  |  |  |
| --- | --- | --- |
| Variable | F Square | Result |
| Patient Cognition 🡪 Patient Satisfaction | 0,025 | Small effect size |
| Medical Procedure 🡪 Patient Satisfaction | 0,013 | No effect size |
| Administrative Practicess🡪Patient Satisfaction | 0,008 | No effect size |
| Hospital Image🡪 Patient Satisfaction | 0,004 | No effect size |
| Trustworthiness 🡪 Patient Satisfaction | 0,042 | Small effect size |
| Safety 🡪 Patient Satisfaction | 0,032 | Small effect size |
| Infrastructure 🡪 Patient Satisfaction | 0,023 | Small effect size |
| Personnel quality🡪 Patient Loyalty | 0,030 | Small effect size |
| Social Responsbility 🡪 Patient Satisfaction | 0,119 | Small effect size |

Variables that have no effect on patient satisfaction are administrative practice, hospital image, medical care procedures. Variables that have a weak effect on patient satisfaction are infrastructure, patient cognition, personnel quality, safety, trustworthiness, social responsibility. Social responsibility has the greatest effect on patient satisfaction with an f Square value of 0.119.

**Q Square**

This predictive ability test or Q Square is useful in providing information about the magnitude of the possibility of relevance between latent variables in research. The Q2 predict value can also be grouped into three groups, namely:(1) small predictive relevance: <0.25, (2) medium predictive relevance: 0.25 – 0.5, (3) large predictive relevance: >0.5. If the data parameters are changed, the predictive ability of the variables is relatively unchanged. This value can be used to indicate the quality of the proposed model. The Q2 value is obtained from calculations using the blindfolding method.

**Table 5. Q Square**

|  |  |  |
| --- | --- | --- |
| Variabele | Q2 Predict | Result |
| Patient Satisfaction | 0.821 | Large predictive relevance |

According to the above test, it shows the impact of factors that influence patient satisfaction showing a large predictive ability of the relevance relationship. This shows that this model is able to predict the same output if there is a change or variation in the input data.

**Importance Performance Map Analysis**

IPMA interpretation is divided into four quadrants, namely: Quadrant A (High Importance/ Low Performance) as the main priority; Quadrant B (High Importance/ High Performance) which needs to be maintained; Quadrant C (Low Importance/ Low Performance) as the next priority; and Quadrant D (Low Importance/ High Performance) (Ringle et al., 2022).

The description shows the mean or average of the importance and performance of both indicators and variables. The results of the average value of the variable importance and performance are 0.114 and 76.192. These two values ​​facilitate the association of the four quadrants on the mapping graph as in Figure 1.

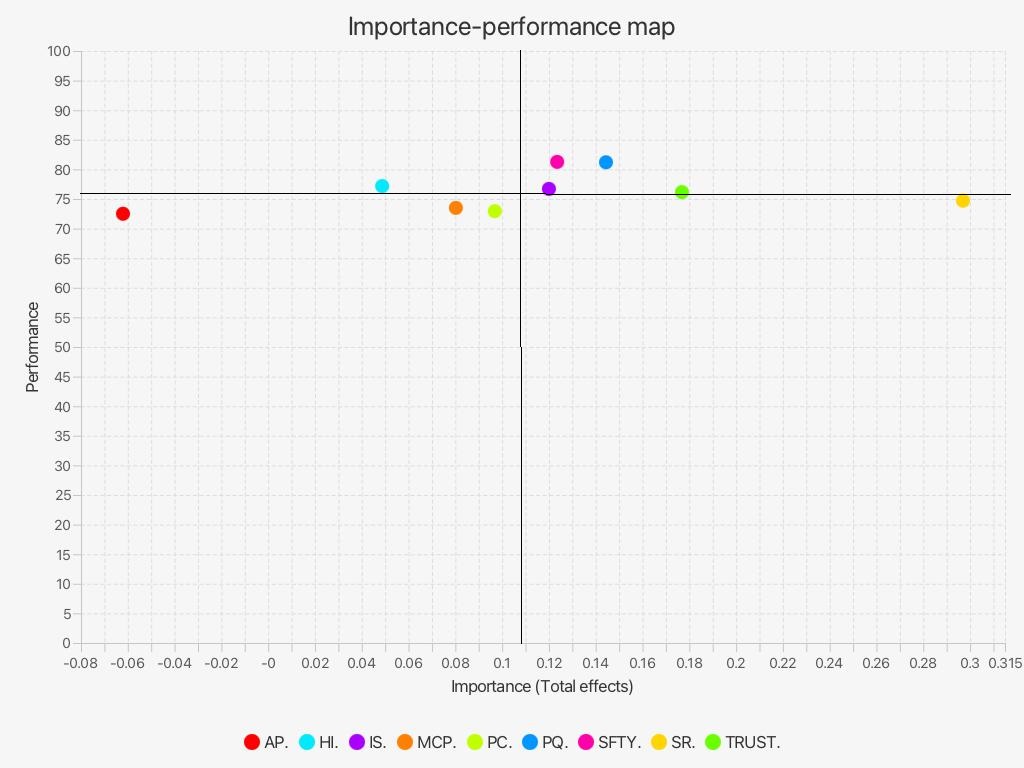


Figure 1. IPMA results for each variable

According to the picture, it can be seen that trust, personnel quality, infrastructure and safety are included in quadrant A which is the most important but performance is already good and should be maintained in the future. Then hospital image is included in quadrant B which is important and performance is still low to be the main priority for improvement in increasing patient satisfaction, and finally administrative practice, patient cognition, medical care procedure are included in group C where this quadrant has a low level of importance and its performance is also considered less good by customers. Social responsibility is included in group D where customers consider the existence of these attributes not too important but the implementation is carried out very well.

**Hypothesis Testing**

**Table 6. Hypothesis Testing**

|  | Standard Coefficient | T Statistics | P Value | Decision |
| --- | --- | --- | --- | --- |
| Patient Cognition 🡪 Patient Satisfaction | 0,097 | 1,999 | 0,023 | Accepted |
| Medical Procedure 🡪 Patient Satisfaction | 0,080 | 1,250 | 0,106 | Rejected |
| Administrative Practicess🡪Patient Satisfaction | -0,062 | 0,849 | 0,198 | Rejected |
| Hospital Image🡪 Patient Satisfaction | 0,048 | 0,607 | 0,272 | Rejected |
| Trustworthiness 🡪 Patient Satisfaction | 0,177 | 2,009 | 0,022 | Accepted |
| Safety 🡪 Patient Satisfaction | 0,123 | 1,532 | 0,063 | Rejected |
| Infrastructure 🡪 Patient Satisfaction | 0,120 | 1,477 | 0,070 | Rejected |
| Personnel quality🡪 Patient Loyalty | 0,144 | 2,047 | 0,020 | Accepted |
| Social Responsbility 🡪 Patient Satisfaction | 0,297 | 3,407 | 0,000 | Accepted |

**The Influence of Patient Cognition on Patient Satisfaction**

Based on the results of the study, the influence of Patient Cognition on Patient Satisfaction shows an original sample value of 0.097 with a positive direction. This means that there is a direct relationship where an increase in patient understanding or awareness regarding the health care they receive can contribute to increased patient satisfaction. Then, the significance value obtained of 0.023 shows that this influence is statistically significant. This means that there is a tendency for increased patient satisfaction along with increased patient cognition, and the effect is also strong enough to be considered significant in the context of this study. Because the significance value exceeds the commonly used limit to state significance (i.e. 0.05), the alternative hypothesis (Ha) which states that patient cognition has a significant effect on patient satisfaction is accepted. Thus, Patient Cognition has a positive effect and is considered significant in increasing patient satisfaction at XYZ Hospital. The results of this study are in line with previous research (Lu et al., 2021) which stated that patient cognition has a significant positive effect on patient satisfaction.

In the context of patients, cognition refers to an individual's level of knowledge and understanding regarding the health services they receive or the medical products they use. Cognition involves aspects such as patients' beliefs, ideas, and opinions about medical care, procedures, or facilities provided by the hospital (Guhl et al., 2019). In this case, cognition can include patients' understanding of the diagnosis, treatment options, potential risks, and benefits of the treatment they receive, and their expectations of the outcome of the treatment (Evanschitzky & Wunderlich, 2006). Therefore, the better the patient's cognition of medical services, the higher the level of satisfaction.

**The Influence of Medical Care Procedures on Patient Satisfaction**

Based on the results of the study, the effect of Medical Care Procedures on Patient Satisfaction shows an original sample value of 0.080 with a positive direction. However, although the direction is positive, the significance value obtained of 0.106 indicates that this effect is not statistically significant. This means that although there is a tendency for increased patient satisfaction along with increased medical care procedures, the effect is not strong enough to be considered significant in the context of this study. Because the significance value exceeds the limit commonly used to state significance (i.e. 0.05), the alternative hypothesis (Ha) which states that medical care procedures have a significant effect on patient satisfaction is rejected. The results of this study are not in line with previous studies (Bakan et al., 2014; Manzoor et al., 2019) which state that medical care procedures have a significant effect on patient satisfaction. Therefore, the results of this study are a novelty in themselves compared to previous findings.

Medical care procedures include a variety of actions performed by healthcare professionals to diagnose, treat, prevent, or manage illnesses and injuries. These procedures vary in complexity, from non-invasive actions such as administering medications or performing diagnostic tests, to more invasive interventions such as surgery or therapeutic treatments. Providing superior healthcare services empowers hospital management to differentiate the hospital and enhance capabilities and improve competitive positioning that are practically advantageous (Manzoor et al., 2019).

**The Influence of Administrative Practices on Patient Satisfaction**

Based on the results of the study, it shows that Administrative Practices shows an Original Sample value of -0.062 with a P Value of 0.198, which indicates that its effect on patient satisfaction is negative and insignificant. In other words, although hospital administrative practices may affect patient experience, this analysis found that this aspect did not contribute significantly to increasing patient satisfaction. A negative value indicates that if there is an increase in administrative practices, it could have an impact on decreasing patient satisfaction. This result also means that the alternative hypothesis Ha, which states that administrative practices positively affect patient satisfaction, must be rejected. The results of this study are not in line with previous studies (Anh & Manh, 2017; Chien & Thanh, 2022) which stated that administrative practices have a significant positive effect on patient satisfaction. Thus, this finding is a novelty in itself because it is different from previous findings.

Hospital administration practices encompass a variety of important aspects that support patient management and enhance their experience. The patient registration procedure is a crucial first step, where patients’ personal and medical information is collected to ensure appropriate care. Next, schedule management serves to organize doctor’s examination times, medical procedures, and other appointments so that all activities run smoothly and on time, reducing patient waiting time. In addition, medical record management is vital to store, maintain, and access patient health information securely and in an organized manner, often through electronic systems, billing and payment involve the process of managing insurance claims and processing payments from patients, which is essential to maintaining transparency and building trust (Asif et al., 2019; Loyd, 2017). By managing all these aspects efficiently, hospitals can provide quality healthcare services and improve patient satisfaction. However, this study is different, stating that administrative practices have no impact on patient satisfaction. Patients often focus more on their direct experience with medical personnel and the quality of care they receive than on administrative aspects. Even if the registration procedures, schedule management, and medical record management are carried out well, if the patient's interaction with the doctor and nurse is not satisfactory, this can reduce overall satisfaction.

**The Influence of Hospital Image on Patient Satisfaction**

Based on the results of the study, the Original Sample value for Hospital Images was recorded at 0.048 with a P Value of 0.272, which indicates that the effect of hospital image on patient satisfaction is not significant. These results indicate that although hospital image can be considered important in the context of health services, in this study, its influence is not strong enough to have a direct impact on patient satisfaction levels. Thus, because the effect of hospital image is proven to be insignificant, the alternative hypothesis Ha which states that hospital image has a significant positive impact on patient satisfaction must be rejected. The results of this study are not in line with previous studies (Asnawi et al., 2019; Sukawati, 2021; Wu, 2011) which state that hospital image has a significant positive impact on patient satisfaction, so the current findings contradict the findings of previous studies.

In the context of health care, hospital brand image is the collection of beliefs, ideas, and impressions that patients have about the hospital (Kotler & Clarke, 1986). In other words, this brand image reflects how patients perceive and evaluate the hospital based on their experiences, information, and interactions. The hospital brand image is not absolute; rather, it is relative and depends on comparison with the brand images of other competing hospitals. Although a good hospital image is often considered a positive indicator in attracting and retaining patients, in reality, it does not always have a direct impact on patient satisfaction. This can be due to several complex factors. For example, patients may have high expectations based on the positive image they receive, but if their actual experience does not match those expectations, they may be disappointed. For example, even if a hospital has a strong image in terms of service, if patients experience long wait times or less than satisfactory interactions with medical personnel, this can reduce their overall satisfaction.

**The Influence of Trustworthiness on Patient Satisfaction**

Based on the results of the study, it shows that the Original Sample for the Trustworthiness variable was recorded at 0.177 with a P Value of 0.022. These results indicate a significant positive effect, which means that the higher the level of patient trust in the hospital, the more likely they are to feel satisfied with the services received. Because the influence of this trust is proven to be significant, the alternative hypothesis Ha in this study is accepted. The results of this study are in line with previous findings (Chang et al., 2013; Durmuş & Akbolat, 2020; Orrange et al., 2021) which state that trustworthiness has a significant positive effect on patient satisfaction. Thus, the current findings support or strengthen previous findings.

Trust is a fundamental factor in the relationship between patients and healthcare providers. When patients believe that their hospital and healthcare providers are competent, reliable, and committed to providing the best care, they tend to feel more comfortable and open in undergoing the treatment process. This trust can also influence patients' perceptions of the quality of care they receive, thereby increasing their satisfaction (Shan et al., 2016). In this context, patient trust can be built through various means, such as transparency in communication, openness about medical procedures, and showing empathy and concern from medical personnel. In addition, previous positive experiences and the hospital's reputation for providing quality care also contribute to building trust.

**The Influence of Safety on Patient Satisfaction**

In the results of the analysis conducted, the Original Sample value for safety was recorded at 0.123 with a P Value of 0.063, indicating that its effect on patient satisfaction was not significant. This result indicates that although safety is an important factor in the context of health services, its impact on patient satisfaction in this study was not strong enough to be considered influential. Thus, the alternative hypothesis Ha in this study was rejected, indicating that in this study, safety did not have a significant effect on patient satisfaction. The results of this study are not in line with previous studies which stated that safety has a significant positive effect on patient satisfaction (Mazurenko et al., 2019). Thus, this finding is a novelty in itself because it is different from previous findings.

Safety is the way in which security aspects are managed in the workplace. This concept often reflects the attitudes, beliefs, perceptions, and values ​​held by employees regarding safety (Okafor et al., 2018). In the context of healthcare, the World Health Organization (WHO) defines patient safety as an effort to reduce the risk of unnecessary harm associated with healthcare to an acceptable level (Okafor et al., 2018). This definition emphasizes the importance of creating a safe environment for patients during the care process, where risks and potential harms can be minimized. Therefore, safety management in hospitals includes not only the implementation of strict procedures and protocols but also building a strong safety culture among all staff. Although safety is a very important aspect in healthcare, research results show that this factor does not have a significant effect on patient satisfaction. Several reasons can explain this phenomenon. Although hospitals implement strict safety protocols, patients may not be fully aware of or understand the steps taken to protect them. In many cases, patients focus more on their direct experiences, such as interactions with healthcare providers, quality of care, and medical outcomes, than on safety procedures they may not see or feel directly.

**The Influence of Infrastructure on Patient Satisfaction**

In the results of the analysis conducted, the Original Sample value for Infrastructure was recorded at 0.120 with a P Value of 0.070, indicating that its effect on patient satisfaction was not significant. These results indicate that although infrastructure is an important factor in hospitals, its impact on patient satisfaction in this study was not strong enough to be considered influential. Thus, the alternative hypothesis Ha in this study was rejected, indicating that in this study, infrastructure did not have a significant effect on patient satisfaction. The results of this study are not in line with previous studies (Amankwah et al., 2024; Kamra et al., 2016) which stated that infrastructure has a significant positive effect on patient satisfaction. Thus, this finding is a novelty in itself because it is different from previous findings.

This infrastructure is related to patient perceptions of the hospital environment, cleanliness, and other physical aspects. Physical facilities, such as room cleanliness, comfort, and completeness of equipment, are considered important elements in creating a positive patient experience. Experts have tried to explore how the physical condition of the hospital can affect patient perceptions of the quality of service they receive, as well as how these facilities contribute to patient comfort and satisfaction (Hussain et al., 2019). Lewis (1990) explained how physical services and features are very important, especially privacy, physical security, and location. Patients focus on interior decoration, building appearance, layout, and atmosphere. The things that patients like most include the appearance of staff, buildings, and strategic locations.

**The Influence of Personnel Quality on Patient Satisfaction**

Based on the results of the study, the Personnel Quality variable was proven to be significant with an Original Sample value of 0.144 and a P Value of 0.020, indicating that the quality of health workers has a positive and significant effect on patient satisfaction. These results indicate that competent and qualified medical personnel have an important role in increasing patient satisfaction. Patients tend to appreciate professionalism, clinical skills, and how they are treated by medical personnel more. Thus, the alternative hypothesis (Ha) in this study is accepted, namely that the quality of health workers directly affects patient satisfaction. The results of this study are in line with previous studies (Karaca & Durna, 2019; Tan et al., 2019) which stated that personnel quality has a significant positive effect on patient satisfaction, so that the current findings support previous findings.

Physicians, nurses, administrators, and support staff have important roles in producing quality health care outcomes and effective quality improvement. In addition, health care providers should emphasize the importance of the role of nurses and empower them. Nurses should be treated as full partners in patient care and given opportunities to grow. This will create a good team, which is able to participate in multidisciplinary teams for quality improvement and patient care management. Nurses, who have direct contact with patients, play an important role because their work involves contact with managerial policies and practices, physicians, and other clinical care providers (Tan et al., 2019).. Satisfaction with the quality of personnel is also one of the main goals of every health care institution. The quality of interaction and attention provided by nurses greatly influences how patients rate their overall hospital experience, because nurses have a central role in the daily care of patients (Goh et al., 2016).

**The Influence of Social Responsibility on Patient Satisfaction**

Social Responsibility (SR) is a variable that measures the extent to which a hospital demonstrates its social responsibility, both to patients and the wider community. With an Original Sample value of 0.297 and a P Value of 0.000, its influence is proven to be very significant, indicating that this aspect has a major impact on patient satisfaction. This shows that patients tend to be more satisfied when hospitals are actively involved in social activities that benefit the surrounding environment. Therefore, the alternative hypothesis (Ha) in this study is accepted. The results of this study are in line with previous studies (Liu et al., 2016; C. N. L. Tan et al., 2019) which state that social responsibility has a significant positive effect on patient satisfaction, so the results of this study support previous findings.

Healthcare providers, such as hospitals, should not only think about financial gain, but also focus on the health of the community as a whole. In other words, hospitals should support anti-discrimination policies, engage in solidarity programs both at the national and international levels to fulfill their social responsibilities, and volunteer to participate in charity projects. For example, hospitals can support school activities for students or provide assistance during disasters (social welfare). Such practices can help hospitals improve patient satisfaction. When hospitals show concern for the community and engage in beneficial activities, patients will appreciate the services they receive more (Tan et al., 2019).

**CONCLUSION**

The results showed that patient cognition, trust, personnel quality, social responsibility had a positive effect on patient satisfaction. While other factors such as medical service procedures, administrative practices, hospital image, safety, infrastructure did not affect patient satisfaction.

Based on the results of IPMA, what is important but needs improvement includes hospital image which can be improved by carrying out various activities such as blood donation, counseling related to various diseases, visiting surrounding areas for disease prevention socialization, advertising digitally, and things that form a positive image in the community. This study attempts to combine previously existing research models by adding a new factor, namely patient cognition, in order to produce novelty in this study. This study attempts to complement the factors that impact patient satisfaction by improving the quality of service in terms of medical and non-medical aspects.

This study has limitations, namely that patients come from one location, namely XYZ Hospital. Further research can be conducted at other XYZ hospitals in the Jakarta area so that it can be generalized more widely. Patients who are the subject of the study are not distinguished between out patient, in patients, and emergency. Further research can be limited to the out patient, in patient, or emergency section only.

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