Suhita, B. M., Fajriah, A. S., & Acob, J. R. U. (2023)
Jurnal Keperawatan Soedirman – Vol 18, No 1 page 43-51
http://jos.unsoed.ac.id/index.php/jks/index

ORIGINAL ARTICLE

THE DETERMINANT FACTORS OF PATIENT SATISFACTION AMONG OUTPATIENT AND INPATIENT SERVICES IN A TYPE B HOSPITAL IN INDONESIA

Byba Melda Suhita[1]*, Asruria Sani Fajriah[1], Joel Rey Ugsang Acob[2]

1. Faculty of Nursing and Midwifery, Institut Ilmu Kesehatan STRADA Kediri, Indonesia
2. College of Nursing, Visayas State University, Visayas, Philippines

Article Information
Received: 25 November 2022
Revised: 8 January 2023
Accepted: 13 March 2023

***Corresponding Author**
Byba Melda Suhita
bybamelda@yahoo.co.id

DOI
10.20884/1.jks.2023.18.1.7280

ABSTRACT

Healthcare providers have made various efforts to increase patient and community satisfaction with health services. However, large sample size studies have not been conducted to investigate the determinants of community stratification in Indonesia. This research aimed to analyze determinant factors affecting patient satisfaction in a type B hospital. A cross-sectional with an online survey was used and analyzed with path analysis. A total of 884 participants were recruited with the criteria that all respondents were patients aged 17 years and over who visited the inpatient and outpatient hospital. Overall, the value service satisfaction was very good (scored 87.44 score). Moreover, online service directly increased by age (b = 0.68; 95% CI = 0.08 to 1.27; p = 0.026), gender (b = 0.82; 95% CI = 0.15 up to 1.49; p = 0.016), and education level (b = 1.76; 95% CI = 0.86 to 2.66; p <0.001). Moreover, service costs are directly affected by employment (b = 0.67; 95% CI = 0.92 to 1.26; p = 0.023); and product-specific services were directly affected by age (b = 0.74; 95% CI = 0.20 to 1.29; p = 0.008). These findings suggest that education, gender, and age directly affect online services as an indicator of satisfaction.

Keywords: *Determinant; health services; path analysis; patient satisfaction*

ISSN : 1907-6637 **e-ISSN : 2579-9320**

INTRODUCTION

Health care is an organized effort to maintain and improve health, prevent and cure diseases, and restore the health of individuals, families, communities, and societies (Adhikary et al., 2018; Firdaus & Dewi, 2015). Private and public hospitals provide health services in the constantly expanding healthcare industry. Improving the quality of medical services has become a crucial concern in the national and international expansion of health care (Pratama & Hartini, 2020). Since 2013, the number of hospitals in Indonesia has expanded rapidly, and more than half are private (Simanjorang et al., 2019). Consequently, patient satisfaction is becoming integral to performance enhancement and clinical efficacy (Al-Harajin et al., 2019; Simanjorang et al., 2019).

Patient satisfaction evaluates the degree to which a patient is satisfied with the care they receive from a healthcare provider (Liu et al., 2021). Patient satisfaction results can indicate the patient's loyalty to the health facilities provided. In addition, when patients are satisfied with the service they receive, they will share this positive information with others. This is reinforced by a statement from Liu et al. (2021) that patient satisfaction evaluates the degree to which a patient is satisfied with the health care they receive from a healthcare provider.

Initially, patient satisfaction was measured because satisfied patients were believed to be more likely to comply with treatment, leading to improved outcomes (Sadeghi et al., 2021). Patient satisfaction is influenced by the quality of the services that officers provide. Patients who seek treatment also hope that the officers treat all patients well without discriminating against social status, religion, occupation, or education level (Asamrew et al., 2020). Interestingly, patient satisfaction is an internationally recognized component that must be assessed routinely to complement other quality assessments and assurance techniques to enable the healthcare system to operate efficiently (Asamrew et al.,

2020). By identifying and understanding its factors through a continuous quality improvement process, this comprehensive approach can better satisfy patients' needs and improve the quality of health service delivery (McCann et al., 2014; Nagorcka-Smith et al., 2022).

Previous research demonstrated that satisfaction with the hospital, department, room, and board; satisfaction with medical staff; satisfaction with the quality of care received, and satisfaction with hospital discharge favorably impact patient satisfaction (Umoke et al., 2020). Service quality is the most prominent element regarding service suppliers in achieving excellence. Therefore, it should be improved and measured (Taqdees et al., 2018). Healthcare associations have begun to emphasize the advanced quality of health services. The increasing competition among hospitals also encourages customers to make the best choice (Mosadeghrad, 2014).

Patient satisfaction regarding healthcare services has become essential in designing healthcare service quality, access improvement, and monitoring. In recent years, the focus on measuring patient satisfaction has increased. Such studies are regarded as valuable, even if they are made by official authorities (recognized international organizations or public institutions at the national level) or practitioners and researchers from medical, social, administrative, and economic fields (Karaca & Durna, 2019). Hospitals are responsible for increasing the quality of life and consumer expectations to provide patients with high-quality healthcare services.

In the current era of disruption, where everything is highly uncertain, organizations and service providers, particularly those in the healthcare services industry, must have a competitive advantage and be adaptable to change (Pratama & Hartini, 2020). Patient satisfaction with nursing care has become the most significant predictor of overall satisfaction with hospital care and an essential objective for any healthcare organization (Goh et al., 2016). Measuring patient satisfaction with nursing care can improve the quality of nursing services by simplifying the development of care standards and monitoring both results and patient perceptions of quality (Karaca & Durna, 2019). In all contexts, nurses have a crucial role in providing emotional and psychological support to patients and their families, such as assisting with the patient's diagnosis and ensuring optimal care. In addition to providing specialized care, nurses must possess the professional knowledge, attitudes, and abilities necessary to provide informational, emotional, and practical support (Buchanan et al., 2015).

A previous study demonstrated that service quality influences customer satisfaction in type B private hospitals. Patient satisfaction increases customer loyalty, reduces future transactional costs, favors corporate revenue, and prevents customer desertion due to inadequate quality (Fatimah et al., 2022; Lestariningsih et al., 2018). However, extensive sample-size studies have not been conducted to investigate the determinants of community stratification in Indonesia. Consequently, it was necessary to examine the determinants of patient satisfaction among inpatient and out-patient services in a type B hospital.

In this study, we analyzed factors related to patient satisfaction using path analysis that allowed the researchers to analyze more complex models. This test was used to determine direct or indirect relationships, one of which is through intervening variables. Path analysis presents causal relationships between variables in the form of images to be easier understood. This depiction is done to explain the relationship that occurs between both dependent and independent variables or other relationships with their moderation variables. Path analysis also allows researchers to test theoretical propositions regarding cause-and-effect relationships without intervening against variables, a novelty in our study. This study investigates the determinant factors affecting patient satisfaction in a type B hospital in Kediri, East Java, Indonesia.

METHOD

Study design

This is an analytic observational study with a cross-sectional design.

Sample

Between October to November 2021, the patient satisfaction index survey was distributed to every department of a type B hospital in Kediri. This study's population comprises of all patients and their families who were aware of this research and could complete the questionnaire. The respondents were outpatients, inpatients, emergency patients, and those receiving critical care, support services, or other services. They were required to rate 9 (nine) elements of the Community Satisfaction Survey, including service requirements, service procedures, service time, service competence, service behavior, facilities, service costs, product specification service, and complaint handling. The sample size for outpatients increased by 10%, with a significance level of 5% and a 95% level of confidence in the survey results with the Slovin method formula (Ryan, 2013). Thus, 884 participants were recruited for this study using the purposive sampling approach.

Instrument

The questionnaire was made based on the general guidelines of the Regulation of the Minister of State Apparatus Empowerment and Bureaucratic Reform Number 14 of 2017 concerning Guidelines for Community Satisfaction Surveys on Public Service Providers. The regulation stipulates 9 (nine) elements of the Community Satisfaction Survey in the scope of public services, including service requirements, service procedures, service time, service competence, service behavior, facilities, service costs, product specification service, and complaint handling (Harsoyo & Suparno, 2021).

The Customer Satisfaction Index (CSI) was used to process the survey results. The CSI method is a quantitative analysis method that determines the percentage of satisfied users in a user satisfaction survey by paying attention to the product or service's attributes. The calculation of the overall USI is indicated by the sum of the average value of each CSI indicator = sum of all indicators/maximum score of indicators. To facilitate the interpretation of the CSI assessment, with scores ranging between 25-100, the assessment results were converted to a basic value of 25, with the following formula: Convert of CSI = CSI x 25.

Table 1. Customer satisfaction index value criteria value

Value Perception	CSI interval value	Service quality CSI conversion	Interval value	Service unit performance
1	1.00 – 1.75	25 – 43.75	D	Poor
2	1.76 – 2.50	43.76 – 62.50	C	Moderate
3	2.51 – 3.25	62.51 – 81.25	B	Good
4	3.26 – 4.00	81.26 – 100	A	Excellent

Note: Literature from the Documentation Network dan Law Information, 2014

The questionnaire is divided into 11 variables, consisting of 9 elements from the assessment of the patient satisfaction index combined with 2 additional internal elements from the hospital: student existence and online registration. The first variable concerns the requirements that must be met in the management of a type of service, namely, technical and administrative requirements. The questions regarding the requirement indicator cover the conformity of the requirements information to the type of service and the terms of service. The second variable is that systems, mechanisms, and procedures are standardized service procedures for service providers and recipients, including complaints. The questions regarding the procedure indicator cover easy service procedures and simple and non-convoluted service procedures.

The next variable concerns the completion time, which includes the period of time required to complete the entire service process of each type of service. The questions regarding the service time indicator cover the completion of services per the target time and the adequacy of time given to customers for consultation. Fourth, is the competence of the implementer in terms of knowledge, expertise, skills, and experience. The questions for the competency indicator include doctors having professionalism/competence in providing services, nurses having professionalism or competence in providing services, laboratory officers, pharmacists, and administrative officers having professionalism or competence in providing services, and doctors, nurses, pharmacists, laboratory and other officers having the ability and experience in providing services.

The fifth variable is the behavior of the executor and the attitude of the officer when providing services. The questions for the behavioral indicators cover the behavior of doctors, nurses, pharmacists, laboratory workers, and other officers who provide services in terms of their polite, friendly, and respectful behavior and do not discriminate against patients. The next variable is all means that can be used to achieve goals and objectives. Infrastructure is the main support for the implementation of a process. The questions for the infrastructure indicator cover complete service facilities and infrastructure (adequate chairs, trash cans, hand sanitizers), suitability for use, quality, clean, neat, and comfortable service facilities and infrastructure, the presence of supporting facilities such as waiting rooms, prayer rooms, adequate bathrooms and parking, and information boards/signs about hospital evacuation plans and routes.

The seventh variable concerns the fee/tariff charged to the recipient of the service and the amount charged is determined based on an agreement between the organizer and the community. The questions for this indicator cover how the costs/tariffs include clear, open, and affordable service costs, and how officers do not receive monetary/goods outside of the official tariff (gratuity). The next variable is the product specification of the type of service provided and received per the provisions set. The questions for this indicator cover all types of services functioning per the standards stated by the hospital on the information board and the completeness of medical equipment and services and supporting equipment.

The ninth concerns the handling of complaints, suggestions, and inputs, as well as the procedures for complaint handling and follow-up. The questions for this indicator about complaint handling include the means of public service complaints available and the certainty of follow-up handling of public service complaints is clear. The tenth variable concerns an on-line service for registration in outpatient installations. The last variable is the presence of students in assisting the service process and their competence. In this study, the Cronbach's alpha of 0.77 to 0.93 indicated that it is of acceptable reliability.

Data collection

The data collection was conducted by having respondents fill in a paper-based questionnaire at the hospital and fill in an online questionnaire via Google Forms through a sent request. For inpatients, we used Bed Occupancy Rate (BOR) values. The contents of the paper-based questionnaire and the electronic version by Google Forms are the same. The distribution of online questionnaires is widely used research, for example, Abidova et al., (2020) used the Qualtrics software (Qualtrics XM, Provo, UT/ Seattle, WA) to collect data online.

Data analysis

The data analysis of demographic data utilized frequency analysis and general information about the survey participants. The data included the respondent's age, gender, education, occupation, and insurance. The descriptive statistics employed in this study were frequency, percentage, and CSI score. In a path analysis model, the normality test determines whether the dependent, independent, or both variables have a standard or abnormal distribution. Additionally, the kurtosis value in the final row was 6.350, which helped determined the multivariate normality of the data. Next, path analysis determined the direct or indirect influence of multiple independent variables-analysis of research using Stata version 13 software (STATA Corp LP).

Ethical consideration

The Ethical Review Board was obtained from Institut Ilmu Kesehatan STRADA Indonesia with number 2951/ KEPK/IV/2022. The institute analyzed and approved the protocol to guarantee that the rights of the study's subjects were fully protected. Moreover, the respondents were well-informed about the objectives of this research. We obtained written informed consent forms from each participant. The data were gathered and handled with confidentiality and anonymity.

RESULTS

Based on Table 1, most respondents are aged 41-60 (37.78%). This result indicates that people of productive age prefer to go to the hospital for health treatment. Most respondents were women (62.67%), and most graduated senior high school (41.40%). This statistic suggests that the level of knowledge of the community who uses local

government-owned hospital services is at the lower middle level. Additionally, most of the respondents were not working (33.14%) and used the Indonesian Health Card (Kartu Indonesia Sehat or KIS/BPJS) (71.15%) for payment.

Table 2. Respondents' characteristics

Characteristics	Indicators	Total	%
Age	17-25 years	174	19.68
	26-40 years	197	22.29
	41-60 years	334	37.78
	Over 60 years	179	20.25
Sex	Male	330	37.33
	Female	554	62.67
Education	Elementary school	61	6.90
	Junior High School	113	12.78
	Senior High School	116	13.12
	Diploma	366	41.40
	Bachelor	65	7.35
	Master Degree/PhD	149	16.86
Occupation	Public servant	80	9.05
	Private Sector	125	14.14
	Self-employed	173	19.57
	Student	91	10.29
	Unemployed	293	33.14
	Other	122	13.80
Insurance	BPJS/KIS	629	71.15
	Other insurance	18	2.04
	Non-insurance	237	26.81

Table 3 and Table 4 show that the conversion value of Community Satisfaction Index in outpatient installation is 87.44 with the category 'very good' in the Service Unit Performance.

Table 3. The patient satisfaction index value of 11 elements

Indicators	Conversion	Service unit performance
Service requirement	86.75	Very good
Service procedure	85.50	Very good
Service time	81.25	Very good
Service competence	89.00	Very good
Service behaviour	89.75	Very good
Facilities	87.25	Very good
Service cost	86.75	Very good
Product specification service	87.00	Very good
Complaint handling	91.00	Very good
Online services	93.00	Very good
The presence of internship students	84.50	Very good
Average	87.44	Very good

Table 4. The patient satisfaction index value of every department

Department	Conversion	Service unit performance
Interne	88.50	Very good
Heart	84.25	Very good
THT	81.50	Very good
Children	89.00	Very good
Surgery	90.50	Very good
General	89.00	Very good
Pulmonary	92.00	Very good
Gynaecology	79.00	Good
Dental	77.25	Good
Oral surgery	81.75	Very good
Neural	77.75	Good
Physiotherapy	99.25	Very good
Eye	89.25	Very good
Psychiatry	98.00	Very good
Orthopaedics	83.50	Very good
Neurosurgery	97.25	Very good
Oncology	99.50	Very good
Urology	76.75	Good
Average	87.44	Very good

The community satisfaction index revealed that age, sex, and education affect online service; insurance affects service behaviour; occupation affects service cost; and age affects specific service (Table 5).

Table 5. Factors affecting the patient satisfaction index

Dependent variable		Independent variable	Path coefficient (b)	CI 95%		p
				Lower limit	Upper limit	
Direct effect						
Online service	←	Age (*)	0.68	0.08	1.27	0.026*
	←	Sex(*)	0.82	0.15	1.49	0.016*
	←	Education (*)	1.76	0.86	2.66	<0.001*
Service behaviour	←	Insurance	-0.34	-1.07	0.40	0.369
Service cost	←	Occupation (*)	0.67	0.92	1.26	0.023*
Specific service	←	Age (*)	0.74	0.20	1.29	0.008*
Indirect effect						
Complaint handling	←	Service procedure (*)	0.95	0.35	1.55	0.002*
	←	Service competence (*)	0.91	0.31	1.52	0.003*
Service competence	←	Service procedure (*)	1.14	0.55	1.72	<0.001*
Service procedure	←	Online service (*)	0.59	0.59	-0.01	0.051
Online service	←	Service requirement	-0.68	-1.56	0.21	0.133
Service time	←	Internship student (*)	0.70	0.10	1.31	0.022*
Service behaviour	←	Facilities	0.54	-0.13	1.2	0.117*

Dependent variable		Independent variable	Path coefficient (b)	CI 95%		p
				Lower limit	Upper limit	
	←	Service time (*)	1.73	1.12	2.35	<0.000*
	←	Specific service	-0.65	-1.39	0.89	0.085
Facilities	←	Specific service	0.36	-0.24	0.95	0.238
Specific service	←	Service cost	0.19	-0.45	0.82	0.566
Service cost	←	Service requirement	-0.27	-0.92	0.38	0.418
Log Likelihood= -1326.9474						

Figure 1 is the path analysis diagram of the factors affecting the Patient Satisfaction Index in a Type B State Hospital.

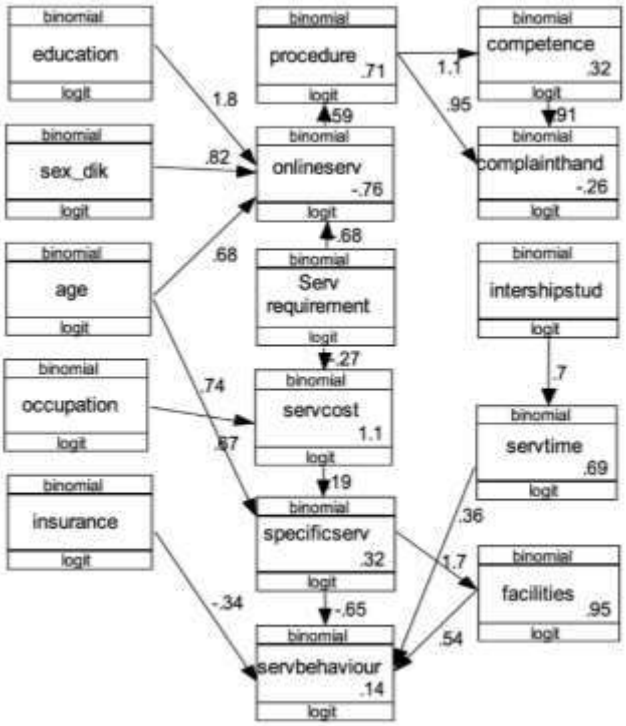

Figure 1. Path analysis model of the factors affecting the patient community satisfaction index

DISCUSSION

This study demonstrated that education, gender, and age directly affect online services as a satisfaction indicator. Other similar studies on the influence of sociodemographic characteristics on patients' satisfaction also showed a consistent relationship between patient satisfaction with age, gender, education, or insurance (Al-Harajin et al., 2019; Ramaswamy et al., 2020). Moreover, age is the most influential factor in the utilization of online services by 0.98 times. Another factor that has influenced the use of online or telemedicine services is gender and education. Age is a known factor associated with the use of information and communication technology, including the use of health information. This is believed to be due to age-related motivational factors rather than difficulty accessing technology (Darrat et al., 2021). Patients' age was found to correlate positively with the tangibility dimension of service but not with overall satisfaction. This, combined with education, indicates the patients' maturity and evaluation of healthcare delivery (Enabudoso & Isara, 2011). Moreover, Alessandri et al. (2021) found that the factors that influenced the use of telemedicine services during the COVID-19 pandemic were the age factor (which was 0.21 times higher), the education factor, the ease of access factor, and the service experience factor received from health workers in telemedicine that was 0.38 times higher (Kludacz-Alessandri et al., 2021). The older the patients, the more probable they have extensive experience interacting with healthcare institutions, which affects their choice of facility and evaluation of the quality of services provided (Amporfro et al., 2021).

According to a prior study, respondents with primary education were 8.57 times more likely to be satisfied with nursing care than those who were illiterate (Wudu, 2021). The report aligns with research undertaken in Greece and Ethiopia (Gorari & Theodosopoulou, 2015; Sharew et al., 2018). This resemblance may be attributed to educated patients being familiar with healthcare facilities. As a result, they have higher expectations of nursing care than patients without formal education. Patient satisfaction is the patient's perception of the offered therapy compared to the standard treatment. Therefore, planned education enables the patient to reach their prior treatment experience with the predicted treatment (Wudu, 2021).

Furthermore, previous research has shown that client satisfaction positively correlates with enrollment in a health insurance program (Sun et al., 2017). Community-based health insurance is considered a viable instrument for improving the health system for low-income individuals, as it improves the health condition of enrollees and boosts labor supply and productivity (Sarker et al., 2017). Many factors, such as insurance scheme design features such as benefit packages, inflexible payment schedules, and a lack of client awareness, play a crucial role in successfully implementing such a scheme (Kimani et al., 2014). Moreover, satisfied individuals are more likely to employ healthcare services and adhere to treatment regimens (Ali et al., 2017; Atafu & Kwon, 2018).

The result shows that online services are effective in increasing service satisfaction. Customer satisfaction can be achieved when the needs and expectations are met. Patient satisfaction cannot be separated from the quality of services, which can function as the capital to get more patients (Sari et al., 2020). To fulfill the increasing service demands, performing data processing, such as having faster registration flows through online-based services, is necessary. The ease of obtaining services through online facilities makes a faster and shorter line from diagnosis and treatment, increasing the satisfaction of patients and families (Wardani & Efendi, 2014).

Time directly affects service satisfaction. Today's society perceives time as highly valuable, so a faster line to receive health services becomes a point of consideration when choosing a hospital (Taber et al., 2015). This point aligns with the previous research by Xie & Or (2017), which revealed that long wait times are the second factor of dissatisfaction. Patient waiting time refers to the time it takes from registration to the specialist providing the service (Xie & Or, 2017). It reflects how the organization manages its service components and adjusts them to the patient's situation and

expectations. Thus, good quality health services should run as well as possible to maintain loyal customers.

Our study showed that complaint handling directly improves service satisfaction. One of the strategies to increase customer satisfaction is efficient complaint handling (Behrouzi & Ma'aram, 2019). An efficient noncompliant-handling strategy could change a patient's satisfaction from unsatisfied to satisfied. A well-managed patient complaint handling following the basic fundamental principles (transparency, accountability, responsibility, independence, equality, and fairness) will generate a satisfactory perception of service quality (Marliana, 2017).

Facilities also play a significant role in achieving community satisfaction and directly affect service satisfaction. Increased public awareness of health's importance is one reason why the need for health facilities is also increasing. Additionally, people are more thoughtful in choosing healthcare providers that meet their needs and expectations (Assefa et al., 2019). Facilities are crucial to increasing satisfaction as it provides convenience and meets service users' needs and comfort. If the facilities provided suit their needs, it positively affects patients', families', and communities' satisfaction (Haldane et al., 2019; Hu et al., 2016; Manzoor et al., 2019).

This study's result shows service procedures' effect on service satisfaction as an indicator of competence, service requirements, and service behavior. According to (Mosadeghrad, 2014), the delivery of health services significantly affects the attitudes and expectations of patients and strengthens their relationship with healthcare providers. As a result, service delivery significantly impacts the management of all services and organizations involved and is related to delivering detailed medical attention (Cowing et al., 2009). In addition, it is significant to focus on the best quality of service to increase community satisfaction (Manzoor et al., 2019). Participation of medical or paramedics can influence the quality of health services. Nurses who provide nursing services to patients are a form of professional service based on the science and ethics of nursing (Purwaningsih, 2015). The optimal services provided by employees to the patient or the patient's family are expected to provide satisfaction so that it brings about effective coping. Effective coping means that the patient or the community thinks of alternatives as a form of adaptation to the positive behavior of hospital services (Karaca & Durna, 2019).

Notably, the indirect effect of service requirements on service satisfaction is through payment and service fees. The quality-of-service results from comparison between the expectations of service users about the service and their perceptions about how the service is given. Technical and functional quality in the healthcare sector is crucial to identifying several service quality dimensions (Shafiq et al., 2017). Quality care includes assessment, technical management at the administrative and clinical levels, interpersonal control, and continuity of care. Access refers to some aspects, such as location, hours, telephone, waiting time, and appointments. The administration of technical management focuses on the general condition and facilities, food, and billing efficiency. Technical clinical management, which refers to the technical quality of care provided, may have been one of the more contentious areas with the argument that patients lack the knowledge to accurately assess technical competence (Caruana et al., 2000).

The price or cost paid by the patient for the services received is also one of the factors of satisfaction and dissatisfaction of the community about health care facilities (Suyitno, 2018). The policy of value or price can affect the mindset of human beings by considering their needs as customers of a product. The costs incurred on the services received will affect the community's satisfaction with the health services, affecting their interest in revisiting. People will choose more effective, efficient, and suitable services according to the price or cost, which means they will be satisfied with spending the service costs. Therefore, the price has a positive relationship with satisfaction; the higher the feasibility of the price level, the higher the satisfaction of society (Sitio & Ali, 2019).

Next, the effect of service competence on community satisfaction with the services provided through the presence of internship students. The quality of service is affected by the competence of medical personnel and paramedics within the hospital. Training can improve competence according to the respective field of work, so employees can improve their performance and positively improve service quality (Syahrul et al., 2021). Competence is seen from expertise, knowledge, and emotional conditions. The better the competence, the more professional the employees, with practical, efficient, and transparent results based on the standards. Competence affects the quality of patient services, resulting in higher compensation for patient satisfaction (Jiménez & Basurto, 2022).

Hospitals have a strategic role in accelerating the improvement of the community level with a new paradigm of quality public health services per the patient's needs and expectations (Tiara & Lestari, 2013). Patient satisfaction is related to the quality of service. By knowing the level of patient satisfaction, hospital management can increase the quality of service. The clinical practice made by students is an independent action of professionals through cooperation with patients, individuals, family groups/communities, and collaboration with other medical or paramedics based on their responsibilities. The skills and attitudes of the interns have a positive effect on patient satisfaction. The better the skills and attitudes upon providing services, the higher the patient or family satisfaction (Wandebori, 2017).

Lastly, this study shows the indirect effect of the internship student on service satisfaction through service time and service behavior. High-quality or satisfactory service is achieved if the service meets the customer's needs and expectations. Therefore, quality is enormously significant and always focuses on patient satisfaction. To provide quality health services, standards must be met in the specification of service products. The acceptance of each service product specification represents the results of the services provided and is one of the priority programs in improving the quality of service for the community, so community satisfaction is reached. The increase in every product specification service positively affects community satisfaction (Wandebori, 2017).

The result shows that there is an effect of insurance on service behavior. Some treatments of nurses, doctors, administration, and others are sometimes different for insurance patients. The level of satisfaction of insurance patients with health services in hospital inpatient wards is lower than that of uninsured patients. Nurse service is the most influential factor in patient satisfaction (Amporfro et al., 2021). This is because nursing services are the main spearhead of health services in hospitals and are the main mirror of the overall success of health services. High-quality nursing services must also be carried out by professional nursing personnel in a professional manner (Jiménez & Basurto, 2022).

The limitation of this study is that the research location was only one hospital. Consequently, the distribution of the study sample is uneven and cannot be compared with private hospitals. We also did not identify each respondent's number of visitations. Moreover, methodological aspects in comparative analysis, research sample size, and research questionnaires are important factors for the evaluation process that could be improved in future studies.

CONCLUSION AND RECOMMENDATION

In this study, 11 satisfaction indicators were investigated. This study found that education, gender, and age directly affect online services as an indicator of satisfaction. Future research should identify the status of patient visits to evaluate the differences. There should also be a continuous process of monitoring and analyzing healthcare services using patient feedback and research data to develop new policies and improvements to healthcare facilities.

ACKNOWLEDGMENT

The author is thankful to the respondents for their valuable information and awareness to participate in this research. The authors wish to acknowledge the Faculty of Nursing at Institut Ilmu Kesehatan STRADA Indonesia for their financial support.

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