Research Article

Determinants Factors Related to Patient Satisfaction with Laboratory Services at Permata Hati General Hospital

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ABSTRACT

Introduction: The quality of healthcare services is a crucial factor in the success of a hospital. Healthcare services are considered high-quality when they generate satisfaction for the patients served. This research aims to identify factors related to patient satisfaction with laboratory services. **Methods:** The research used a quantitative approach with a correlational research design and a cross-sectional approach. The sampling technique used in this study is purposive sampling. The sample size used in this research is 98 patients. The instrument used in this study is a patient satisfaction questionnaire consisting of 25 items. The questionnaire has been validated and has good reliability, with validity test values ranging from 0.477 to 0.980 and a reliability value of 0.913. Data processing in this research uses Chi-square and Rank Spearman tests. **Results:** The results of the study indicate that there is no relationship between age (p=0.100), gender (p=0.133), education (p=0.594), marital status (p=0.151), and occupation (p=0.155) with patient satisfaction. **Conclusion:** It can be concluded that age, gender, education, marital status, and occupation do not have a significant relationship with patient satisfaction with the services provided.

Keywords: Laboratory, Patient satisfaction, Sociodemographic, Factors

Introduction

A hospital is a type of healthcare facility that offers comprehensive health services for individuals [1]. Hospitals have undergone various changes as healthcare service providers, transforming into social institutions and profit-oriented businesses [2],[3]. A service quality analysis is necessary to anticipate potential business competition in hospitals [4]. The quality of healthcare services is a key factor in the success of a hospital. The measurement of good services is reflected in the quality of services provided. The better the services offered, the higher the quality of healthcare services [5]. If consumers are dissatisfied with the services provided, it can lead to decreased hospital visits, resulting in financial losses for the hospital [6].

In the study conducted by Puji Lestari et al. [7], reliability is the most crucial factor in determining patient satisfaction when assessing satisfaction levels. The determining factors for inpatient satisfaction are ranked from most important to least important, with reliability, assurance, accessibility, responsiveness, tangible, and empathy as the last factor. Another study by Teguh Santoso et al.[4] asserts that service quality variables (tangible, reliability, responsiveness, assurance, empathy) collectively significantly impact patient satisfaction in the Laboratory of RSUD Kota Mataram. Triwardani [8] examined the relationship between sociodemographic factors and patient satisfaction, discovering that patient age and gender correlate with the satisfaction level with hospital services.

In Semarapura City, specifically at Permata Hati General Hospital, research has yet to be conducted to assess patient satisfaction with laboratory services, even though this is crucial to maintaining the quality of services to ensure they remain high-quality and can impact the hospital's revenue. According to internal data at Permata Hati General Hospital, there has been a decline in patient visits in February and July 2022. According to Nurhalina et al. [6], a decrease in hospital visits can be caused by patient dissatisfaction with the provided services.

This research aims to determine patient satisfaction with laboratory services at Permata Hati General Hospital. The factors needed to identify include the sociodemographic characteristics of patients based on age, gender, education, marital status, and occupation.

This research is expected to provide theoretical benefits by serving as a reference for future researchers in understanding the determinants of patient satisfaction. Additionally, it is hoped that the results of this study will make a substantial contribution, especially for the authors who can use it as a tool to broaden their understanding and insight in applying the theories.

Material and Methods

This research was conducted at Permata Hati General Hospital from January 31 to March 31, 2023. The study used correlational research with a cross-sectional design.

Subject

The population size in this study was obtained from the average monthly visits over the past year, amounting to 844.

The sampling technique was purposive sampling. Inclusion criteria included patients who received laboratory services and were willing to be respondents by signing informed consent, while exclusion criteria included uncooperative patients. The sample size used in this research was 98 patients.

Data collection

This study used a questionnaire modified from the previous study [9]. This questionnaire was chosen according to the objective of the questionnaire to measure patient satisfaction with laboratory service in the hospital. The original instrument was developed with 50 items. After modification, the number of items became 25 questions. The Likert scale ranged from 1 (very unsatisfied) to 5 (very satisfied). The questionnaire has been validated and has good reliability, with validity test values ranging from 0.477 to 0.980 and a reliability value of 0.913.

The type of data collected was primary data through the distribution of questionnaires. The research began by aligning perceptions with two enumerators, namely laboratory staff at the hospital. The alignment of perceptions covered the objectives, benefits, respondent selection methods, and research procedures. The researcher then selected respondents according to inclusion and exclusion criteria and provided explanations to potential respondents. If potential respondents were willing to participate, they were encouraged to sign an informed consent.

Respondents who had signed informed consent were then given a questionnaire to complete. The time required for each respondent was approximately 20-30 minutes.

Data analysis

After the data were filled out, the researcher collected and separated the data and

conducted data analysis. Three stages of data analysis were used in this research: univariate and bivariate. Bivariate tests used the Rank Spearman test and Chi-square test.

Before completing the analysis, several data processing stages had to be carried out, including editing, coding, data entry, cleaning, and tabulation.

Ethical considerations
This research has obtained ethical approval with the number 15/E1.STIKESWIKA/EC/I/2023. The study's risks and benefits were explained to participants. The informed consent form was followed by questionnaire distribution. Respondents could decline or withdraw during data collection.

Result and Discussion
Table 1. Distribution of Respondents' Characteristics

Variable	f	%
Age		
< 17 years	0	0
17-25 years	26	26,5
26-35 years	26	26,5
36-45 years	23	23,5
46-55 years	23	23,5
>56 years	0	0
Gender		
Male	34	34,7
Female	64	65,3
Occupation		
Civil servant	18	18,4
Military/Police	5	5,1
Private employee	46	46,9
Entrepreneur	8	8,2
Other jobs	21	21,4
Education		
No formal education	1	1,0
Basic level of education	6	6,1
Middle level of education	31	31,6
High level of education	60	61,2
Marital Status		
Unmarried	32	32,7
Married	66	67,3
Total	98	100

Table 1 indicates that the majority of patients were in the age groups of 17-25 years and 26-35 years (26.5%). Most patients were female (34.7%). The majority of patients work in the private sector (46.9%). Higher education was more common among patients, with 60 respondents (61.2%). Additionally, most patients (67.3%) were married.

Table 2. The Relationship between Age and Patient Satisfaction

Age	Patient Satisfaction				Total		Sig (*P Value*)
	Unsatisfactory		Satisfactory				
	N	%	N	%	N	%	
< 17 years	0	0	0	0	0	100	
17-25 years	12	46,2	14	53,8	26	100	
26-35 years	12	46,2	14	53,8	26	100	0,100
36-45 years	10	43,5	13	56,5	23	100	
46-55 years	5	21,7	18	78,3	23	100	
>56 years	0	0	0	0	0	100	
Total					98	100	

Table 2 shows that the satisfactory category was most prevalent among respondents aged 46-55 years, 18 respondents. The analysis of the relationship between age and patient satisfaction shows a significance value (p-value) of 0.100, greater than 0.05. This means that there is no significant relationship between age and patient satisfaction.

Table 3. The Relationship between Gender and Patient Satisfaction

Gender	Patient Satisfaction				Total		Sig (*P Value*)
	Unsatisfactory		Satisfactory				
	N	%	N	%	N	%	
Male	17	50,0	17	50,0	34	100	0,133
Female	22	34,4	42	65,6	64	100	
Total					98	100	

Based on the table above, it was found that the most satisfied category was predominant among female respondents, 42 respondents. The analysis of the relationship between gender and patient satisfaction yielded a significance value (p-value) of 0.133, greater than 0.05. This implies that there is no significant relationship between gender and patient satisfaction.

Table 4. The Relationship between Highest Education Level and Patient Satisfaction

Education	Patient Satisfaction				Total		Sig (*P Value*)
	Unsatisfactory		Satisfactory				
	N	%	N	%	N	%	
No formal education	1	100,0	0	0,0	1	100	
Basic level of education	1	16,7	5	83,3	6	100	0,594
Middle level of education	12	38,7	19	61,3	31	100	
High level of education	25	41,7	35	58,3	60	100	
Total					98	100	

Based on the table above, it was found that the most satisfied category was predominant among respondents with higher education, which was 35 respondents. The analysis of the relationship between the last education level and patient satisfaction yielded a significance value (p-value) of 0.594, greater than 0.05. This implies no significant relationship between the education level and patient satisfaction.

Table 5. The Relationship between Marital Status and Patient Satisfaction

Marital Status	Patient Satisfaction				Total		Sig (*P Value*)
	Unsatisfactory		Satisfactory				
	N	%	N	%	N	%	
Unmarried	16	50,0	16	50,0	32	100	0,151
Married	23	34,8	43	65,2	66	100	
Total					98	100	

In the table above, it was found that the most satisfied category is predominant among respondents who are married, 43 respondents. Based on the analysis of the relationship between marital status and patient satisfaction, the obtained significance value (p-value) is 0.151, which is greater than 0.05. This means no significant relationship exists between marital status and patient satisfaction.

Table 6. The Relationship between Occupation and Patient Satisfaction

Occupation	Patient Satisfaction				Total		Sig (*P Value*)
	Unsatisfactory		Satisfactory				
	N	%	N	%	N	%	
Civil servant	4	22,2	14	77,8	18	100	
Military/Police	3	60,0	2	40,0	5	100	
Private employee	21	45,7	25	54,3	46	100	0,155
Entrepreneur	5	62,5	3	37,5	8	100	
Other jobs	6	28,6	15	71,4	21	100	
Total					98	100	

The table above shows that the most satisfied category was predominant among respondents with a private sector job 25 respondents. Based on the analysis of the relationship between occupation and patient satisfaction, the obtained significance value (p-value) is 0.155, which is greater than 0.05. This means that there is no significant relationship between occupation and patient satisfaction.

Age

This research is in line with studies conducted by Faridah et al. [10], Kartini et al. [11], and Nuryanto [12], which found no significant relationship between age and the level of patient satisfaction. This finding is consistent with Anfal's study, stating that young and elderly patients have the same needs to receive the best healthcare services [13].

According to Oroh et al. [14], older individuals tend to accept physical limitations more easily and feel satisfied with their conditions compared to younger patients. Older people generally have higher openness and lower demands and expectations. Therefore, older people are more quickly satisfied with their needs than younger individuals.

According to the researcher, age can influence patient satisfaction with hospital services but cannot be the sole determining factor. Many other factors need to be considered, such as service quality, facility availability, ease of access, clarity of information, and good communication between patients and medical staff.

Gender

This research aligns with studies conducted by Muzer [15] and Nuryanto [12], which found no significant relationship between gender and patient satisfaction. Both men and women have similar expectations when receiving healthcare services, and patient satisfaction is not correlated with the patient's gender.

According to Notoatmodjo S. in Rizal & Jalpi [16], men significantly influence women's opinions and considerations when making decisions. However, men also bear heavier responsibilities than women, expecting better

working conditions to feel satisfied, especially in healthcare services. Due to these psychological differences, women tend to be more easily satisfied than men.

According to the researcher, each individual has distinct preferences and needs when receiving healthcare services. Despite gender differences in psychology, perceptions, and behavior, these aspects cannot be generalized universally. Therefore, healthcare services should emphasize each individual and personalize services for patients without emphasizing gender as a determinant of patient satisfaction.

Education

This research aligns with Munawir, as cited in Araujo [17]. According to Munawir [17], patient satisfaction does not solely depend on an individual's level of education but varies across various supportive dimensions and other aspects influencing service quality. This view is reinforced by Azrul Azwar, as mentioned in Muzer [15], stating that patient satisfaction is not influenced by an individual's educational status but rather by other variable aspects, similar to the quality of service influenced by various supportive dimensions.

Anfal [13] asserts that individuals with higher levels of education tend to be more critical and demanding when receiving healthcare services if they feel dissatisfied. This is because the higher an individual's level of education, the greater their health knowledge. Conversely, individuals with lower education levels generally accept healthcare services with few demands or expectations for more due to their lack of knowledge about what they should receive. Differences in education levels affect the expectations and needs of individuals regarding the healthcare services they receive.

According to the researcher, previous studies have found many relationships between the level of education and patient satisfaction. However, as indicated by the findings of this study, every patient's response to healthcare services, including their satisfaction response to those services, is not solely influenced by their level of education but also by their knowledge and intelligence levels.

Marital Status

This research aligns with studies conducted by Faridah et al. [10] and Yuniar & Handayani [18], stating that no significant relationship exists between marital status and patient satisfaction. They emphasize that patient satisfaction is primarily influenced by professionalism, healthcare providers' respect, and patient appreciation. Additionally, patient satisfaction can also be affected by the availability of healthcare providers to answer each patient's questions and provide clear information about medication use and regulations.

However, Ayranci Atalay [19] found different results, stating that there is a significant relationship between marital status and patient satisfaction. They explain that, in general, married patients are more satisfied with healthcare services compared to unmarried or divorced patients. Married couples also tend to provide patients with more significant emotional and social support, which can influence their perception of the quality of healthcare services.

According to the researcher, happy and stable couples tend to feel more secure and maintain their health than those who feel unhappy in their marital relationships. Happy couples can also provide more support and attention to their sick partners, making patients feel more comfortable and satisfied with the services they receive. However, the researcher acknowledges that this is not absolute and can vary for each individual. Some patients may feel they do not need support from their partners or feel they can maintain their health, even if their marital status is not happy. Other factors, such as social and cultural environments, can influence patient satisfaction with healthcare services, making this research more complex.

Occupation

This research is aligned with studies conducted by Suryati et al. [20] and Anfal [13], indicating that occupational status does not significantly affect patient satisfaction. These findings suggest that patients from various occupational backgrounds, whether employees, entrepreneurs, or other professions, have similar

satisfaction levels in receiving healthcare services. Anfal [13] added that other factors influence patient satisfaction, such as the work environment and family environment. Therefore, it is essential to consider that patient satisfaction is influenced not only by individual factors but also by environmental factors that can affect it.

According to the researcher, patients with jobs that require higher social interaction, such as teachers or salespeople, tend to pay more attention to communication and interaction aspects with healthcare providers when explaining their health conditions. Conversely, patients with jobs more focused on physical work, such as farmers or construction workers, might be more concerned with the physical quality of services, such as cleanliness and room comfort. However, further research is still needed to clarify the relationship between patients' occupations and patient satisfaction with healthcare services.

Limitations

One of the limitations is that satisfaction can be influenced by many factors that should have been examined in this research. Besides, the sample in this research was 98 people so the research results are difficult to generalize to a wider population.

Conclusion

The results of the patient satisfaction category indicate that 39.8% of respondents consider the service unsatisfactory, while 60.2% of respondents find the service satisfactory. There is no significant relationship between age and patient satisfaction. Similarly, no meaningful relationship exists between gender, education, marital status, and occupation with patient satisfaction. Multivariate analysis could not be conducted due to the absence of significant relationships in the bivariate analysis between sociodemographic factors and patient satisfaction.

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Conflict of interests

We declared that there is no conflict of interest.

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