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The Influence of General Facilities, General Service, Registration Service, Service Providers and Accessibility on Patient Satisfaction of Antenatal Care at XYZ Hospital

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ABSTRACT

The aim of this research is to examine and analyze the influence of public facilities, public services, service providers and accessibility on patient satisfaction with antenatal services at XYZ Hospital. Testing of the modified research model from previous research was carried out using data from midwifery services at the hospital. The method in this research is a quantitative approach with surveys and cross sectional. Respondent data was taken in 2024 by purposive sampling with questionnaires from individuals who had received antenatal care services at XYZ Hospital. There are 180 samples that meet the requirements described by PLS-SEM. The results of this research show that the five variables are proven to have a significant and positive influence. This research adds a contribution that focuses more on antenatal care services in hospitals. It is recommended in future research to include more hospitals of various types and a larger sample size so that the analysis results can be more generalized at the population level. Future research is recommended to consider adding other variables that may potentially influence patient satisfaction.

Keywords: Accessibility, General Facilities, General Service, Patient Satisfaction, Registration Service, Service Providers

INTRODUCTION

Antenatal Care (ANC) or antenatal care is one of the most important services that must be provided to women throughout the world during their pregnancy. Antenatal care starts from the first day of confirmed pregnancy and lasts until birth. The World Health Organization (WHO) recommends that pregnant women undergo screening and treat risk factors for pregnancy and risk factors for childbirth (Alhaqbani & Bawazir, 2022).

Antenatal care (ANC) is the main strategy in reducing maternal morbidity and mortality. ANC aims to monitor and maintain the health and safety of the mother and fetus, detect any pregnancy complications and take necessary action, respond to complaints, prepare for childbirth, and promote a healthy lifestyle (Laksono et al., 2020). ANC helps provide basic preventive and therapeutic services, increases awareness of danger signs in mothers, provides orientation on childbirth readiness, and improves health service seeking behavior for women (Hussen & Worku, 2022).

Apart from improving health which is the main goal of the health system, WHO also emphasizes the importance of increasing patient satisfaction. Patient satisfaction is an indicator of the quality of health services that can be influenced by both aspects of care (e.g. technical, quality) as well as personal factors and environmental factors that can influence the patient experience.(Andaleeb, 1998).

Patient satisfaction is one aspect that needs to be considered in the health service industry. Patients who are satisfied with the services provided will have the intention to return to a hospital (Mandagi et al., 2024). Patients who are satisfied tend to be loyal, both in private and state hospitals (Setyawan et al., 2020). Patients who are satisfied will promote it by word of mouth to those closest to them (Siripipatthanakul, 2021). Satisfaction leads to the creation of patient trust (Liu et al., 2021). The basic research theory used is Donabedian

Theory regarding healthcare quality which explains that patient satisfaction is an important result of the interpersonal health service process (Donabedian, 1988). Expression and satisfaction or dissatisfaction is the patient's subjective assessment of the quality of service in all aspects of the service, especially from the inter-personal relations of the service provider (health care provider) in the hospital.

Factors that cause patient satisfaction with antenatal care include responsive service (fast and unhurried service, comfortable clinic hours and privacy during consultations), treatment facilitation (service provider communication regarding medical services and ease of receiving medication, availability of equipment, empathy staff, non-discriminatory treatment regardless of the patient's socioeconomic status, provider assurance (the patient's courtesy and trust in the provider's competence), and the number of clinical examinations received (Onyeajam et al., 2018). Iron/folic acid supplementation, weight measurement, travel time to hospital and consultation time are positively related to patient satisfaction. (Hussen & Worku, 2022). This research focuses on the influence of general facilities, general service, registration service, provider service and accessibility on patient satisfaction with antenatal care at XYZ Hospital.

METHOD

This research uses a quantitative design that tests the influence of the independent variable on the dependent variable. The population determined in this study are all patients who have received antenatal care services at XYZ Hospital in Jakarta in 2024. These individuals must have a history of being a patient who received obstetric care in the form of a pregnancy check (antenatal care) at XYZ Hospital. Based on the minimum sample size reference with the PLS-SEM statistical method, it is recommended to use the inverse square root method, when power cannot be determined then the minimum sample required is at least 160 people (Kock & Hadaya, 2018). The research sample obtained was 180 people.

RESULT and DICUSSION

Respondent Characteristics

Respondent characteristics consisted of 102 new patients (57%) and 78 old patients (43%). BPJS patients consisted of 122 people (68%) and non-BPJS patients consisted of 58 people (32%). Respondents aged less than 20 years were 3 people (2%), aged 20 to 29 years were 85 people (47%), aged 30 to 39 years were 92 people (51%). Respondents' occupations included housewives as many as 85 people (47%), private employees as many as 52 people (29%), others as many as 14 people (8%), civil servants as many as 18 people (10%), entrepreneurs as many as 11 people (6%) . Respondents with a diploma or bachelor's degree were 71 people (39%), 7 people had master's and doctoral degrees (4%), 102 people had high school graduates or equivalent (57%). Respondents living in the city of Bekasi were 11 people (6%), Bogor were 8 people (4%), Jakarta were 150 people (83%), Others were 5 people (3%), Tangerang were 6 people (3%). Respondents with 2 visits were 69 people (38%), 34 people visited 3 times (19%), 21 people had 4 visits (12%), 56 people visited 5 times or more (31%).). Respondents with the number of first pregnancies were 78 people (43%), second pregnancies were 55 people (31%), third pregnancies were 27 people (15%), fourth pregnancies or more were 20 people (11%). Respondents with gestational age < 24 weeks were 27 people (15%), gestational age 24 - 27 weeks were 13 people (7%), gestational age 28 -36 weeks were 73 people (41%), gestational age > 36 weeks were 67 people (37%). The first visit was at 6 to 12 weeks of gestation as many as 64 people (36%), the first visit was at 13 to 18 weeks of gestation as many as 21 people (12%), the first visit at 19 to 24 weeks of gestation was 36 people (20%), the first visit at gestational age > 24 weeks was 59 people (33%). Respondents with planned pregnancies were 82 people (46%) and 98 people (54%) had unplanned pregnancies.

Patient satisfaction obtained an average value of 4.03 with an answer category of agree. General facilities obtained an average value of 4.01 with an affirmative answer category. General services obtained an average score of 4.07 with an affirmative answer category. Registration service obtained an average value of 3.92 with an affirmative answer category. Service providers obtained an average score of 4.17 with an affirmative answer category. Accessibility obtained an average value of 3.84 with an answer category of agree.

Research result

Convergent Validity

Table 1. Outer Loading

AY		GF		GS		PS		RS		PSN	
AY1	0.839	GF1	0.880	GS1	0.918	PS1	0.897	RS1	0.843	PSN1	0.906
AY2	0.908	GF2	0.873	GS2	0.908	PS2	0.913	RS2	0.826	PSN2	0.914
AY3	0.872	GF3	0.787	GS3	0.893	PS3	0.943	RS3	0.812	PSN3	0.923
AY4	0.914	GF4	0.901	GS4	0.907	PS4	0.961	RS4	0.860	PSN4	0.882
AY5	0.915	GF5	0.853			PS5	0.963	RS5	0.802		
		GF6	0.847			PS6	0.974				

Based on the data presented in the table above, it is known that the indicators in each dimension have an outer loading value of > 0.7, and AVE > 0.5, where all variables such as accessibility (AY), general facilities (GF), general services (GF), providers services (PS), registration services (RS), patient satisfaction (PSN) have met the criteria and can be analyzed further. Accessibility (AY) gets an average variant extracted (AVE) value of 0.792, general facilities (GF) gets an AVE value of 0.736, general services (GF) gets an AVE value of 0.821, providers services (PS) has an AVE value of 0.888, registration services (RS) has an AVE value of 0.687, patient satisfaction (PSN) has an AVE value of 0.822.

Discriminant Validity

Table 2. Discriminant Validity

	AY	GF	GS	PSN	PS	RS
AY						
GF	0.706					
GS	0.688	0.763				
PSN	0.844	0.785	0.812			
PS	0.824	0.657	0.748	0.854		
RS	0.837	0.824	0.845	0.875	0.786	

In the table above you can see the HT/MT ratio value for the discriminant validity test, where the ratio value for each variable was found to be below 0.9. Based on these data, it can be concluded that all the indicators in this research model have been discriminated well. These indicators are most appropriate to use to measure the construct itself, thus it can be interpreted that the indicators in this research model can specifically measure their respective constructs so that all variables pass the discriminant validity test.

Reliability Test

Table 3. Reliability Test

Variable	Cronbach's Alpha	Composite Reliability	Result
AY	0.935	0.950	Reliable
GF	0.928	0.943	Reliable
GS	0.928	0.948	Reliable
PSN	0.928	0.949	Reliable
PS	0.975	0.979	Reliable
RS	0.885	0.916	Reliable

From the table above it can be seen that the Cronbach's alpha and composite reliability

values for all variables are above 0.7 as required. All variables can be used in subsequent analysis.

R Square

Table 4. R Square

Variable	R Square	Result
Patient Satisfaction	0.785	Strong

Based on the data presented in the table above, it can be seen that the R-Square value for the Patient Satisfaction variable is 0.785. This value explains that the percentage of Patient Satisfaction can be explained by Accessibility, General Facilities, General Services, Provider's Services and Registration Services with a strong category of 78.5%. The R square value is grouped into three categories where an R square value of 0.75 and above is included in the strong category, an R square value of 0.50 and above and less than 0.75 is included in the moderate category, and an R square value of 0.25 and above and less than 0.50 is included weak category (Hair et al., 2019).

F Square

Table 5. F Square

Pengaruh Variabel	F Square	Result
Accessibility ► Patient Satisfaction	0.056	Weak
General facilites ► Patient Satisfaction	0.045	Weak
General services ► Patient Satisfaction	0.036	Weak
Provider's services ► Patient Satisfaction	0.140	Weak
Registration services ► Patient Satisfaction	0.032	Weak

F Square values higher than 0.02, 0.15, and 0.35 represent small, medium and large effect sizes (Purwanto, 2021). The results of table 5 show that accessibility, general facilities, general services, provider's services and registration services have a small effect size in influencing patient satisfaction. Provider's services have a relatively larger effect size than other variables on patient satisfaction, so hospital management needs to pay attention to it to continue improving.

Q Square

Table 6 Q Square

Variabele	Q^2 Predict	Result
Patient Satisfaction	0.633	Large predictive relevance

The table above shows that factors such as accessibility, general facilities, general services, provider's services and registration services have good predictive relevance to patient satisfaction. If the Q Square value < 0.25, it can be said that the model has small predictive relevance, the Q Square value of 0.25 - 0.5 has medium predictive relevance, while the Q Square value > 0.5 can be said that the model has large predictive relevance (Ghozali & Latan, 2015).

Hypothesis Testing

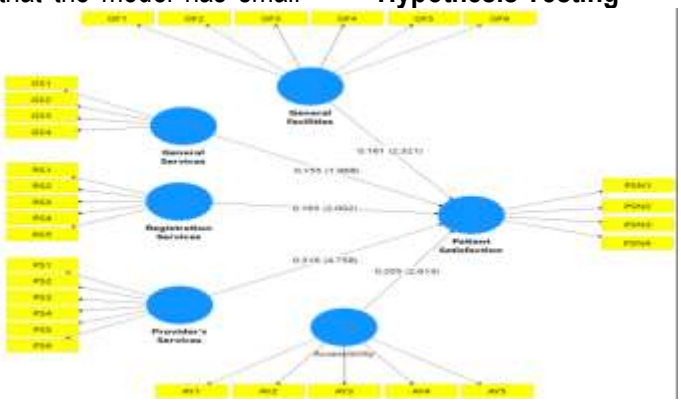

Figure 1. Path Coefficients

Figure 1 shows the results of path analysis on the influence of general facilities, general services, registration services, provider's services, accessibility on patient satisfaction.

Next, the results of the hypothesis test from the independent variable to the dependent variable will be explained.

Table 7. Hypothesis Testing

	Standard Coefficient	T Statistics	P Value	Decision
General facilities -> patient satisfaction	0.161	2.321	0.010	Accepted
General services -> patient satisfaction	0.155	1.968	0.025	Accepted
Registration services -> patient satisfaction	0.165	2.002	0.023	Accepted
Provider's services -> patient satisfaction	0.316	4.758	0.000	Accepted
Accessibility -> patient satisfaction	0.205	2.613	0.005	Accepted

The influence of general facilities on patient satisfaction

From table 7 above it is known that the calculated t for the general facilities variable is 2.321 at a significance level of 0.010 with a regression coefficient value (path coefficient) of 0.161. Because the path coefficient value is positive and the t statistic value is >1.645 and the pvalue is 0.010 <0.05, it can be concluded that the general facilities variable has a positive and significant effect on patient satisfaction.

The research results support hypothesis H1 "Public facilities have a positive effect on the satisfaction of antenatal care patients at XYZ Hospital". This means that public facilities provided by hospitals play an important role in increasing patient satisfaction. Apart from toilet cleanliness, the availability of space for accommodation and nutritional services has a significant relationship with the level of patient satisfaction (Asamrew et al., 2020). Infrastructure is one of the reasons why patients feel satisfied with a hospital (Sodani et al., 2010). One of the factors driving visits to health facilities is trust in the health facility (Kumari et al., 2009). Patient satisfaction can be increased by focusing on improving facility cleanliness (Adhikary et al., 2018).

The influence of general services on patient satisfaction

From table 7 above it is known that the t count for the general services variable is 1.968 at a significance level of 0.025 with a regression coefficient value (path coefficient) of 0.155. Because the path coefficient value is positive and the t statistic value is >1.645 and the pvalue is 0.025 <0.05, it can be concluded that the General Services variable has a positive and significant effect on patient satisfaction.

The research results show that general services have a significant effect on patient satisfaction in antenatal care services at XYZ Hospital, supporting hypothesis H2 that "General services have a positive effect on Antenatal Care patient satisfaction at XYZ Hospital." Qualified and modern medical technology is very important for patients in antenatal care. Diagnostic services such as ultrasound provide important information about the condition of the fetus and the health of the mother, which directly affects the patient's sense of security and satisfaction. Likewise with laboratory services and the availability of medicines, these facilities are very important to support timely diagnosis and effective treatment.

Patient satisfaction can be determined from the overall quality of service (Boquiren et al., 2015). There is some evidence that health information technology improves patient satisfaction (Rozenblum et al., 2013). The ultrasound method can reduce intervention time, reduce perceived pain, and increase patient satisfaction levels (Sengul & Acaroğlu, 2022). There is a need for evaluation to improve and optimize outpatient services such as adding laboratory staff, paying attention to the completeness of medical equipment and medicines, especially medicines that are often needed by the community.(Anivista et al., 2023). Overall services and availability of health facilities and medicines are able to meet patient expectations (Tikirik & Imbaruddin, 2021). Patients whose expectations are met can be said to be compatible with the availability of health facilities and medicines.

The influence of registration services on patient satisfaction

From table 7 above it is known that the t count for the registration services variable is 2.002 at a significance level of 0.023 with a regression coefficient value (path coefficient) of 0.165. Because the path coefficient value is positive and the t statistic value is >1.645 and the p value is 0.023 <0.05, it can be concluded that the registration services variable has a positive and significant effect on patient satisfaction.

The research results show that registration services on patient satisfaction in antenatal care services at XYZ Hospital show positive and significant results, supporting hypothesis H3 "Registration services have a positive effect on Antenatal Care patient satisfaction at XYZ Hospital." This means that the quality and efficiency of registration services which include aspects such as operational hours, waiting times, and communication with registration staff provide a direct contribution to the level of patient satisfaction. In other words, the better the registration service provided, the higher the patient's satisfaction with the antenatal care service at XYZ Hospital.

The results of statistical tests show that there is an influence of outpatient registration services on patient satisfaction (Situmorang, 2022). Speed of service, timeliness of service and readiness for registration will influence patient satisfaction (Masrulloh et al., 2020). Areas such as registration services, waiting times especially for pharmacies and consultations, as well as sanitation and seating facilities need to be further improved (Kalubowila et al., 2017). Implementation of comprehensive reservation services for non-emergency registration in hospitals shortens patient waiting times and increases patient satisfaction (Xie et al., 2019). The electronic appointment system that is starting to be implemented in the healthcare sector is considered positive in terms of benefits and convenience, and along with this, their attitudes and behavior are also positively influenced (Handan, 2016).

The influence of provider's services on patient satisfaction

From table 7 above it is known that the t count for the provider's services variable is 4.758 at a significance level of 0.000 with a regression coefficient (path coefficient) of 0.316. Because the path coefficient value is positive and the t statistic value is >1.645 and the pvalue is 0.000 <0.05, it can be concluded that the provider's services variable has a positive and significant effect on patient satisfaction.

Based on the research results, provider's services on patient satisfaction in antenatal care services at XYZ Hospital showed positive and significant results, supporting hypothesis H4 that "Provider's Services have a positive effect on patient satisfaction with Antenatal Care at XYZ Hospital." This means that the services provided by medical personnel, including doctors and nurses, have a strong and direct impact on patient satisfaction. The quality of interactions, competence, and attitudes of service providers such as health education by nurses, examinations by doctors, effective communication, and friendly attitudes of doctors and nurses all contribute significantly to how patients rate their experience. The better the service provided by medical personnel, the higher the level of patient satisfaction in antenatal care services at XYZ Hospital.

Information and emotional support from doctors is known to have a positive effect on patient satisfaction (Chen et al., 2020). Several factors leading to physician incompetence, such as inappropriate handling of critical cases, inaccurate diagnosis, over-reliance on medical tests, absence of physical examinations, unavailability of specialist physicians, and experimentation by trainee physicians, are associated with patient dissatisfaction (Jalil et al., 2017). Doctors' therapeutic skills, their friendly attitude, respect for patients' feelings, and careful examination of patients by doctors, show a significant correlation with patient satisfaction (Biglu et al., 2017).

The influence of accessibility on patient satisfaction

From table 7 above it is known that the t count for the accessibility variable is 2.613 at a significance level of 0.005 with a regression coefficient (path coefficient) of 0.205. Because the path coefficient value is positive and the t statistic value is >1.645 and the p-value is 0.005 <0.05, it can be concluded that the accessibility variable has a positive and significant effect on patient satisfaction.

The research results show that accessibility to patient satisfaction in antenatal care services at XYZ Hospital shows positive and significant results, supporting hypothesis H5 that "Accessibility has a positive effect on Patient Satisfaction Antenatal Care at XYZ Hospital." This means that easy access to health services has a strong and direct impact on patient satisfaction. Good accessibility ensures that patients can access services easily and conveniently, which is critical in improving their experience during care.

Accessibility is one of the domains that underlies patient satisfaction (Boquiren et al., 2015). If healthcare providers are directly accessible in a country, patients show higher satisfaction with general practice than in countries that require more referrals (Kroneman et al., 2006). Despite major reforms in healthcare policy, patient satisfaction appears to be lacking. The research findings challenge authorities and physicians to improve accessibility to improve patient satisfaction (Raivio et al., 2014). Most people interviewed reported that they decided to go to a health service because it was close to home and not because they trusted the service (Cabrera-Barona et al., 2017).

CONCLUSION

This research focuses on antenatal care services for patients in hospitals. This research model was modified from previous research with patient satisfaction with antenatal care as the dependent variable. There are 5 independent variables, namely General Facilities, General Services, Registration Services, Provider Services and Accessibility. There are 5 hypotheses that have been tested empirically using survey data from respondents who have experience receiving services at XYZ Hospital. Data analysis using PLS-SEM has been carried out to answer the research questions asked. The research results show that general facilities, general services, registration services, provider's services, accessibility each have a positive influence on patient satisfaction.

Services for patients in hospitals have often been researched, but this research adds a new contribution with research that focuses more on antenatal care services in hospitals. Services like this are different from other services, because pregnancy is actually a normal physiological process and is not classified as a disease. However, the gynecological examination process involves more emotions from female patients. For example, a patient in a hospital is waiting with joy for her first pregnancy check-up. Patients and their families also want the best care for the mother and fetus in the womb, especially if it is the first child. On the other hand, private hospital patients generally pay their own pregnancy check-up fees, therefore this group has higher expectations of hospital services and seeks higher quality services.

This research has limitations because the research model was only tested empirically at one XYZ Hospital with a limited sample size. Therefore, there are limitations in generalizing the findings in this study. It is recommended that future research include more hospitals of various types and a larger sample size so that the results of the analysis can be more generalized at the population level. Future research is recommended to consider adding other variables that may potentially influence patient satisfaction. For example, factors such as the quality of medical services, interactions between patients and medical personnel, and more specific physical environmental factors in the antenatal care room. The addition of these variables can provide a more comprehensive understanding of what factors actually influence patient satisfaction and how these variables interact with each other..

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