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Association Between Quality of Prenatal Care and Patient Satisfaction Among Pregnant Women at Kenali Besar Primary Health Center

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Abstract

Introduction: Healthcare service quality is an important indicator in assessing the quality of primary care facilities such as public health centers. The Antenatal Care (ANC) program is a crucial strategy in reducing the Maternal Mortality Rate (MMR), where the satisfaction of pregnant women reflects the fulfillment of patients' clinical and psychological expectations. This study aims to determine the relationship between the quality of ANC health services and the satisfaction level of pregnant women at the Kenali Besar Public Health Center, Jambi City, in 2026. **Methods:** This type of research is quantitative with a cross-sectional design, using a purposive sampling technique to obtain a sample of 59 respondents. **Results:** The univariate research results showed that the majority of respondents rated the quality of ANC services in the good category (57,6%) and felt satisfied with the services received (88.1%). The results of the bivariate test using Chi-Square obtained a p-value of 0.035 (<0.05) with an Odds Ratio (OR) of 10.421. This indicates a significant difference in perception, where pregnant women who receive poor service are 4.4 times more likely to feel less satisfied. **Conclusion:** It can be concluded that there is a significant relationship between the quality of health services and the satisfaction level of pregnant women at the Kenali Besar Public Health Center, Jambi City.

Keywords: Patient satisfaction; Pregnant woman; Prenatal care; Primary health care; Quality of Health Care

Introduction

The maternal and child mortality rate is the main indicator that is often used to assess the health status of a country. The maternal mortality rate (MMR) is one of the important measures that describes the number of female deaths due to complications that occur during pregnancy, childbirth, and the postpartum period. In the Ministry of Health's Strategic Plan for 2020-2024, it is stated that maternal and child health problems in Indonesia are still a challenge that requires serious attention, especially in the aspect of accessibility of health services and quality assurance of services provided by first-level health facilities[1].

Law of the Republic of Indonesia Number 4 of 2024 explains that every mother and child has the right to receive safe, quality, and affordable health services. One form of

implementation of these services is the antenatal care program, which is an important strategy in monitoring the condition of the mother and fetus on a regular basis. Efforts to accelerate the reduction of maternal mortality rate are carried out by ensuring that every pregnant woman is able to access quality health services that are in accordance with standards[2,3].

The maternal mortality rate in Indonesia decreased by almost half during the period 2010-2020 from 346 deaths to 189 deaths per 100,000 live births. Meanwhile, in Jambi, based on the secondary data of the Jambi City Health Profile in 2024, the target of pregnant women at the Kenali Besar Health Center is 1,053 people. The coverage of periodic visits that were successfully collected included ANC 1 by 97.53%, ANC 4 by 98.77%, and ANC 6 by 98.5%. Although the percentage is quite high, the number of visits has fluctuated and has not been completely consistent[4,5]. reliability, responsiveness, assurance, empathy, and tangible evidence. The relationship between these five dimensions of ANC service quality and the level of satisfaction of pregnant women is the main focus that wants to be explored empirically. This research is expected to be a reference for health centers in improving the quality of health services and optimizing the level of satisfaction of pregnant women during pregnancy[8,9].

Methods

This study uses a quantitative method with a correlational descriptive design through a cross-sectional approach. The research was carried out in the working area of the Kenali Besar Health Center in Jambi City from May to June 2026. The population in this study is all pregnant women who make antenatal visits at the Kenali Besar Health Center, Jambi City. The sample in this study amounted to 59 pregnant women who made pregnancy check-up visits at the Maternal and Child Health (MCH) unit[10].

The sampling technique uses purposive sampling which is based on the consideration of certain criteria. The inclusion criteria include pregnant women who have undergone a minimum visit of the second visit, are in cooperative conditions, and are willing to actively participate. The exclusion criteria include pregnant women who are in an acute clinical emergency condition so that they need immediate referral treatment.

Primary data collection was carried out directly using structured questionnaire instruments. The ANC health service quality questionnaire was developed based on the Servqual quality dimension, while the satisfaction level questionnaire was compiled by the researcher with reference to Pohan's theory into Good (≥80%) and Poor (<80%), and satisfaction questionnaires using a cut-off value categorized into Satisfied (≥60%) and Less Satisfied (<60%). This instrument is designed to measure the perception of functional comfort as well as the objective assessment of pregnant women while receiving services at the maternal and child health unit of the Kenali Besar Health Center.

The data that has been collected is processed through the stages of editing, coding, entry, and cleaning. Data analysis was carried out univariate to describe the frequency distribution of respondent characteristics (age, education, occupation, gestational age, frequency of visits) as well as an overview of service quality and satisfaction levels. Furthermore, bivariate analysis was carried out using the Chi-Square non-parametric statistical test at the significance level of $\alpha = 0.05$ to prove whether there is a relationship between the variables of health service quality and the satisfaction of pregnant women, as well as to calculate the Odds Ratio (OR) value. This research has also obtained ethical approval from the research ethics committee number 4872/UN21.8/PT.01.04/2025 related to health before the implementation of data collection took place.

Results

The results of the study presented univariate analysis data in the form of frequency distribution of respondent demographic characteristics, an overview of the components of the ANC health service quality dimension, the distribution of satisfaction levels, and bivariate analysis data in the form of cross-tabulation of the results of the relationship test between variables.

Table 1. Distribution of Characteristics of Pregnant Women Respondents by Age (n=59)

Age	Frequency (n=59)	Percentage (100%)
At risk (20 years<and >35 years)	6	10,2%
Low risk (20-35 years)	53	89,8%
Total	**59**	**100%**

Based on Table 1. The distribution of respondent characteristics of the majority of respondents was in the low risk age category (20-35 years), namely 53 people (89.8%) and the at risk age category, namely 6 people (10,2%).

Table 2. Distribution of Characteristics of Pregnant Women Respondents by Education Level (n=59)

Education Level	Frequency (n=59)	Percentage (100%)
Junior High School	6	10,2%
Senior High School	26	44,1%
Diploma	6	10,2%
Bachelor's Degree	21	35,6%
Total	**59**	**100%**

Judging from the level of education, the majority of respondents had senior high school level of 26 people with a percentage of 44.1%, and a small percentage of respondents were junior high school of 6 people with a percentage of 10.2%.

Table 3. Distribution of Characteristics of Pregnant Women Respondents by Occupation (n=59)

Jobs	Frequency (n=59)	Percentage (100%)
Housewife	24	40,7%
Civil Servant	10	16,9%
Private Employee	20	33,9%
Others	5	8,5%
Total	**59**	**100%**

Based on the respondents' employment status, it shows that the majority of respondents are actively working (civil servant/private employee/others) as many as 35 people with a percentage of 59.3%, while a small percentage of respondents are not working or have the status of housewife, namely 24 people with a percentage of 40.7%.

Table 4. Distribution of Characteristics of Pregnant Women Respondents Based on Gestational Age (n=59)

Gestational Age	Frequency (n=59)	Percentage (100%)
First Trimester	17	28,8%
Second Trimester	19	32,2%
Third Trimester	23	39,0%
Total	**59**	**100%**

Based on gestational age, the majority of respondents were in the third trimester, namely 23 people (39.0%), while a small number of respondents were in the first trimester as many as 17 people (28.8%).

Table 5. Distribution of Characteristics of Pregnant Women Respondents Based on Frequency of Visits (n=59)

Check Frequency	Frequency (n=59)	Percentage (100%)
1 time	11	18,6%
2 times	16	27,1%
3 times	8	13,5%
≥ 4 times	24	40,7 %
Total	**59**	**100%**

Based on the frequency of visits, the majority of respondents conducted ANC visits ≥ 4 times as many as 24 people (40.7%), while few respondents did 3 times as many as 8 people (13.5%).

Table 6. Frequency Distribution of Antenatal Care Health Service Quality Overview

ANC Service Quality	Frequency (n=59)	Percentage (100%)
Good (≥80%)	34	57,6%
Poor (<80%)	25	42,4%

Table 6. The frequency distribution of service quality is that the majority of respondents rated it in the good category as many as 34 people (57,6%), while a small number of respondents rated it in the poor category as many as 28 people (42,4%).

Table 7. Frequency Distribution of Pregnant Women Satisfaction Levels

Pregnant Woman Satisfaction	Frequency (n=59)	Percentage (100%)
Satisfied (≥60%)	52	88,1%
Less satisfied (<60%)	7	11,9%

Table 7. The frequency distribution of satisfaction levels showed that the majority of respondents were satisfied with the services received by 52 people (88.1%), while a small percentage of respondents felt Less satisfied, namely 7 people (11.9%).

Table 8. Quality of Service with the Level of Satisfaction of Pregnant Women Who Made Antenatal Care (ANC) Visits at the Kenali Besar Health Center, Jambi City

Variable	Pregnant Woman Satisfaction				Total		OR	(95% CI)	*p-value*
	Satisfied		Less Satisfied						
	N	%	N	%	N	%			
Service Quality ANC									
Good	33	97.1	1	2.9	34	100	10,421	(1,165-93,203)	0,035
Poor	19	76.0	6	24.0	25	100			

Based on the results of the bivariate analysis in Table 8, it is known that cross-tabulation shows that in the group of pregnant women who rated the quality of ANC services as good, most of them were in the satisfied category as many as 33 respondents (97.1%). On the other hand, among respondents who assessed the quality of ANC services as poor, most of

them were less satisfied, namely 6 respondents (24.0%). The results of the statistical test using Chi-Square obtained a p-value of 0.035 (<0.05) with an Odds Ratio (OR) of 10.421.

Discussion

The demographic characteristics of pregnant women are one of the factors that affect how pregnant women assess the quality of the pregnancy visit services provided. Univariate results showed that the majority of pregnant women were in the low risk age category (20-35 years) at 89.8%.

The results of this study are in line with the research of Rustinawati and Sugiatini (2025) which shows that most pregnant women who make antenatal care (ANC) visits are at a healthy reproductive age of 70.7%. The findings of the research results of Fatkhiyah, et al. (2020) also show a similar thing where the majority of pregnant women who visit ANC are in the low risk age group as much as 66.6%. The results of the two studies prove that the reproductive age group tends to be much more active in utilizing antenatal care (ANC) visit services during pregnancy to minimize complications[11,12].

Judging from the level of education, the majority of respondents have a high school secondary education background (44.1%). The background of secondary education supported by the ease of access to information today makes pregnant women have a better understanding of the ideal pregnancy visit standards.

The results of this study are in line with the research of Inayah (2021) which shows that the majority of pregnant women who make antenatal care (ANC) visits have a high school education level of 70.6%. This finding is also supported by research by Fadliani (2022) which states that most pregnant women who perform ANC services have a high school education level of 66.7%. These two studies confirm that formal education background is closely related to increasing the awareness of pregnant women to carry out regular pregnancy check-ups and understand the benefits of antenatal care[13,14].

The employment status of respondents who are mostly actively working outside the home (59.3%) is one of the factors that can affect a person's behavior in utilizing health services, including antenatal care (ANC) services. These results are in line with Luciana's (2022) research which explained that the work characteristics of the majority of respondents in her study area were active work outside the home, namely 51 people (51%). However,

these results are different from the findings of Suriani (2024), where most of the pregnant women respondents in her study were actually unemployed or housewife by 41.2%[15,16].

The results showed that most of the respondents were in the third trimester of pregnancy, namely 23 respondents (39.0%). This finding appears to be in line with Nurhikma's (2024) research which explains that the largest group of pregnant women is at 9 months gestational age as many as 22 people (21.8%). Meanwhile, different results were shown in the Safari (2023) study, where the majority of pregnant women in the study area were actually in the second trimester, which was 23 people (46%). Although there are variations in the distribution of data, in general, the results of the study show that pregnant women respondents have a high tendency to have antenatal care (ANC) visits when entering the mid to late phases of pregnancy (trimester II and trimester III)[17,18].

Judging from the frequency of visits, most of the respondents have had antenatal care (ANC) visits ≥ 4 times, namely 24 people (40.7%), while the smallest proportion were respondents with a frequency of 3 visits, namely 8 people (13.5%). The results of this study show a different tendency or contrary to the findings of Murni (2020) which states that the majority of pregnant women do not carry out a complete ANC visit according to the minimum standard of ANC 4, which is 54.5%[19].

The results of Chi-Square statistical testing proved that there was a significant relationship between the quality of ANC health services and the satisfaction level of pregnant women at the Kenali Besar Health Center, Jambi City ($p = 0.014 < 0.05$). This meaningful finding is in line with research published by Balkis Fitriani Faozi et al. (2022), which states that there is a close relationship between the conformity of midwife's clinical operational quality standards and the achievement of functional satisfaction of pregnant women. The balanced assessment between good (52.5%) and poor quality (47.5%) indicates that the management of the health center still has to carry out continuous restructuring to reduce the gap in services[20].

Service quality is a key determinant of patient satisfaction in healthcare services. According to the SERVQUAL model developed by Parasuraman et al., service quality is assessed by comparing patients' expectations with their perceptions across five dimensions: tangibles, reliability, responsiveness, assurance, and empathy. In antenatal care (ANC), meeting pregnant women's expectations through high-quality services is essential for achieving patient satisfaction. The significant association found in this study suggests that

better service quality contributes to higher maternal satisfaction by improving the overall healthcare experience beyond clinical care alone[21,22].

An Odds Ratio (OR) value of 4,400 carries strong operational implications. This proves that pregnant women who receive poor service quality have the opportunity to experience less satisfaction about 4 times greater than pregnant women who receive good service. The risk of this functional less satisfaction if left unchecked can have a negative impact on the decline in compliance rates of integrated periodic pregnancy visits (ANC 4/ANC 6). Pregnant women who feel less satisfied have the potential to be reluctant to return to check their pregnancy at the health center, so that early detection of dangerous signs of complications (preeclampsia, severe anemia, fetal malpresentation) escapes the clinical monitoring of midwives[7,23].

When reviewed by component of the Servqual quality dimension, it is known that the highest level of good response is contributed by the empathy dimension in the statement of the officer's friendly attitude and the willingness of midwives to listen patiently to complaints (71.2%). Communicative and therapeutic interpersonal approaches have proven to be the main pillars of shaping the psychological comfort of maternity patients. This finding indicates that empathy emerged as the highest-rated dimension because antenatal care (ANC) involves close and continuous interaction between healthcare providers and pregnant women[9].

During pregnancy, women experience physical and emotional changes that increase their need for attention, reassurance, and effective communication. Therefore, healthcare providers who demonstrate empathy by listening attentively, showing concern, and communicating respectfully are more likely to create a sense of comfort and trust. These positive interpersonal experiences may explain why the empathy dimension received the highest ratings and contributed greatly to pregnant women's satisfaction with ANC services[11].

However, the superiority of the empathy dimension is hampered by the low assessment of respondents on the dimensions of physical evidence (tangible) and the dimension of responsiveness (responsiveness). As many as 47.5% of respondents complained about the lack of space in the maternal and child health waiting room, stuffy air ventilation circulation during crowded visits, and the flow of administrative registration queues that were felt to be slow[9,24].

In integrated ANC visit operations, a long series of direct clinical visits requires a considerable duration of visit per patient. If the duration of the visit is not balanced by the availability of a comfortable physical waiting room and the responsiveness of queue management, then the perception of patient less satisfaction will be formed quickly. Therefore, solutive measures such as the arrangement of regular visit room facilities and the alignment of a more efficient registration queue system are an important form of concern for the management of the Kenali Besar Health Center to improve the comfort of the waiting room, especially for pregnant women[7,25].

Conclusion

The conclusion in this study was obtained from the results of the analysis proving that most of the respondents assessed the quality of ANC health services at the Kenali Besar Health Center in Jambi City to be in the good category (52.5%) and expressed satisfaction with the services received by pregnant women (54.2%). Furthermore, the results of statistical testing concluded that there was a meaningful and empirically significant relationship between the quality of health services and the satisfaction rate of pregnant women ($p = 0.014 < 0.05$), where poor quality of service was proven to increase the risk of patient less satisfaction up to 4.4 times higher.

The limitation of this study lies in the use of cross-sectional research designs that only allow data collection in a specific period of time, so that it cannot describe the causal relationship in depth. In addition, the scope of variables is also still limited to the dimension of Servqual's service quality.

As a suggestion, the Kenali Besar Health Center is expected to continue to improve the comfort of physical facilities, especially in the maternal and child health waiting room, through regular maintenance and rearrangement of the registration queue flow to be more efficient and provide comfort for all patients, especially pregnant women. For nursing education institutions, the results of this research are expected to be an additional reference in the development of research in the field of community nursing management. Meanwhile, for the next researcher, it is recommended to develop the research by expanding the scope of the sample and adding other variables such as service waiting time, family support for ANC compliance, and ease of registration and service flow.

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