






CORRELATION BETWEEN PERCEPTIONS OF QUALITY ANTENATAL CARE SERVICES TO PATIENT SATISFACTION OF PREGNANT WOMEN DURING THE COVID-19 PANDEMIC

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Abstract

Background: The MMR and IMR rates can be significantly lowered by using high-quality prenatal care services. With high-quality antenatal care, moms and babies can obtain critical services, quickly detect risk factors, and quickly access emergency aid during the COVID-19 pandemic. Patient satisfaction is related to the caliber of healthcare services. Recurring patient visits and suggestions for other pregnant patients can all result in patient satisfaction. **Objective:** Analyzing the relationship between perceptions of the quality of antenatal care services and patient satisfaction of pregnant women at the Public Health Center during the COVID-19 pandemic. **Method:** Analytic observational cross-sectional research is what this kind of study entails. There are 73 respondents in the samples, and the sampling was done using the consecutive sampling method with non-probability sampling. The independent variable is the perceived quality of antenatal services. The dependent variable is patient satisfaction. The instrument used was a google form questionnaire, and the data analysis using the Spearman rank test. **Result:** the majority of respondents gave good perceptions on the dimensions of reliability, responsiveness, assurance, empathy, and direct evidence. Respondents with good perceptions were more than half satisfied, while respondents with sufficient perceptions were mostly dissatisfied with antenatal care services. Spearman's rank test results for each dimension obtained $P=0.001$ ($P<0.05$). **Conclusion:** There is a significant relationship between perceptions of the quality of antenatal care services, especially the variables of empathy and tangible, and patient satisfaction of pregnant women at the Puskesmas during the COVID-19 pandemic. Future research can add some patient characteristics or other research variables because there are still 44% of other variables that have a significant effect on patient satisfaction.

keyword : Perception, Quality of service, COVID-19

INTRODUCTION

Integrated antenatal care services are comprehensive and quality prenatal care services provided to all pregnant women. Quality and quality integrated antenatal care services if they meet operational standards known as 10 T and are carried out by competent health workers such as trained midwives, doctors, and nurses (Kemenkes RI, 2010). Quality of antenatal care services is a so important role in reducing maternal mortality and infant mortality. Because with quality





antenatal care services, maternal and neonatal still get essential services, risk factors early can be identified, and get access to emergency help (Mulati, E.ed. dkk, 2015). Eventhough during the COVID-19 pandemic, health services for pregnant women must still be held by taking into account the prevention of transmission to pregnant women and health workers who examine them. Pregnant women are more at risk of transmitting infectious diseases such as COVID-19 both physically and psychologically. This can put pregnant women with COVID-19 at risk of experiencing premature events, hypertension, preeclampsia, and miscarriage (Qomar dkk, 2021).

We know that during the COVID-19 pandemic, there were many restrictions on community activities, including to restrictions on maternal and neonatal health services. In addition, pregnant women are reluctant to go to health service facilities for fear of infection, and unpreparedness for services in terms of health workers and infrastructure to include limited personal protective equipment in health service facilities. That has caused maternal and neonatal health services to be one of the services most affected by COVID-19, both in terms of access and service quality (Kemenkes RI, 2021).

Based on data from the Ponorogo Regency Health Office, the target for pregnant women in 2021 in Ponorogo Regency is 11,004 people. The target of pregnant women at the North Ponorgo Health Center was the highest in Ponorogo Regency, namely 534 pregnant women. At the North Ponorogo Health Center, the number of pregnant women who visited antenatal care from January to March 2020 (before the COVID-19 pandemic) averaged around 99 patients/month. During the COVID-19 pandemic, pregnant women who made antenatal visits from January to March 2021 averaged around 78 patients/month. This data shows that there was a decrease in the number of antenatal visits during the COVID-19 pandemic at the North Ponorogo Health Center. Since the beginning of the pandemic, the North Ponorogo Health Center has limited the number of ANC patient visits. Every patient who wants to make an antenatal visit at the North Ponorogo Health Center is required to consult and tele-register (registration via telephone) in advance with the midwife at the North Ponorogo Health Center. In addition, the Public Health Center also schedules Integrated antenatal care examinations every Monday and

Wednesday for a maximum of 5 patients/day and routine antenatal care every Tuesday. This was carried out by the North Ponorogo health center as an effort to reduce the risk of pregnant women exposed to COVID-19.

Tjiptono and Chandra (2013) say that service quality can be assessed based on the reliability or ability of officers to provide services, the responsiveness of service providers to help patients, and guarantees in this case related to the knowledge and courtesy of service providers so that it creates a feeling of trust from patients, empathy / a sense of care and physical evidence in the form of cleanliness, comfort, and availability of the necessary examination tools.

A good perception is inseparable from good service quality, according to the expectations and needs of patients. According to Notoatmodjo (2010), perceptions are influenced by internal and external factors. The internal factors influencing perception are experience/knowledge, needs, expectations, motivation, emotions, and culture. From the internal factors that differ from one respondent to another, it may also result in different perceptions. The purpose of the study was to determine the relationship between the perceived quality of antenatal care services and patient satisfaction of pregnant women at the North Ponorogo Health Center during the COVID-19 pandemic.

METHOD

The research design used was an observational analytic study with cross-sectional. The population in this study were all pregnant women who were to included in the working area of the North Ponorogo Health Center as many as 89 people. Sampling is non-random (non-probability sampling) with a consecutive sampling technique. The sample size was calculated using the Slovin formula, and the results obtained were 73 respondents. The instrument used was a questionnaire in the form of a structured Google form, with closed questions. The questionnaire consisted of 3 groups of questions, namely respondent characteristics, questions measuring perceptions of the quality of antenatal care services, and patient satisfaction of pregnant women. All questionnaire answers are to present in multiple-choice form. The questionnaire was self-made by the researcher, who had previously carried out validity and reliability tests, with the results of the validity test showing that the questions contained in the questionnaire were valid with a total



corrected item value of <0.05 . The results of the reliability test in this study also showed that the questions contained in the questionnaire were reliable with Cronbach alpha values > 0.60 .

The independent variables in this study have ordinal data types, while the dependent variable has nominal data types, so the researchers used the data analysis of the Rank Spearman correlation test with the help of SPSS with a significance level of 95%. With an error rate used in this study of 5% to see the results of the significance of statistical calculations using a significance limit of 0.05%, it means that the p -value < 0.05 , the hypothesis is accepted, and if the p -value is > 0.05 , the result is not significant which means the hypothesis is rejected, and knowing the magnitude of the risk of Prevalence Risk (PR). This research has passed an ethical test from the Faculty of Medicine, Universitas Airlangga.

RESULT AND DISCUSSION

Based on the results of research on univariate analysis of general data of respondents based on age, education, and occupation. Can be seen in the following table :

Table1. Respondent General Characteristics

Variable	Category	Amount	Percentage %
Age	17 - 24	15	20,5
	25 - 34	49	67,1
	≥ 35	9	12,3
Education	Higher education (Senior high school & Bachelor's degree)	67	91,8
	Low education (Elementary school & Junior high school)	6	8,2
Work	Housewife	45	61,6
	Private employee	14	19,2
	Entrepreneur	12	16,4
	Government employees	2	2,7

Table 1 shows that most of the 49 people (67.1%) of the study subjects were pregnant women aged 25-34 years, 67 people with higher education (91.8%), and 45 people as housewives (61.6%).

The majority of the research subjects in this study were 49 people (67.1%) who were of healthy reproductive age, namely aged 25-34 years and most of the 37 people (77.7%) gave a good perception of antenatal care services at North Ponorogo Health Center for the covid-19 pandemic. According to Sumarwan (2004) in (Setianingsih dan Ronoatmodjo, 2021) age has a relationship with perceptions of service quality because, in each age group, there are different points of view and mindsets. The way of thinking adults tends to be more mature, so it can affect service utilization. Therefore, from the aspect of age, it will create different perceptions between individuals even though they get the same health services.

The level of education is one of the factors that can influence a person's perception. The education of the research subjects in this study was divided into higher education, namely high school and college, and low education, namely not going to school, elementary, and junior high. Based on the results of the study, more than half, namely 68 people (93.1%) were highly educated research subjects and the majority, namely 48 people (70.5%) gave a good perception of antenatal care services at North Ponorogo Health Center during the COVID-19 pandemic. Antenatal care visits to pregnant women with higher education tend to be more organized and know more about the quality of antenatal care services obtained at the healthcare facilities visited (Khasanah, 2020). The higher the individual's educational level, the more knowledge he has, so that the individual will more easily understand the object to be perceived (Yustiani dkk, 2013).

In this study, most of the research subjects were highly educated, and the majority were house wives. The research subjects in this study were more than half of the 45 people (61.6%) who were housewives, and the majority of 34 people

(75.5%) gave a good perception of antenatal care services at the North Ponorogo Health Center during the COVID-19 pandemic. Pregnant women who are not working will tend to receive the health services provided because they spend more time at home, so there are fewer references to the latest antenatal care services. Meanwhile, pregnant women who work allow mothers to exchange knowledge and experience with colleagues in their work environment (Ermaya, N. dan Nugroho, D, 2015).

Figure 1. Correlation between Perceived Reliability of Antenatal Care Services and Patient Satisfaction of Pregnant Women at North Ponorogo Health Center During the COVID-19 Pandemic September-October 2021

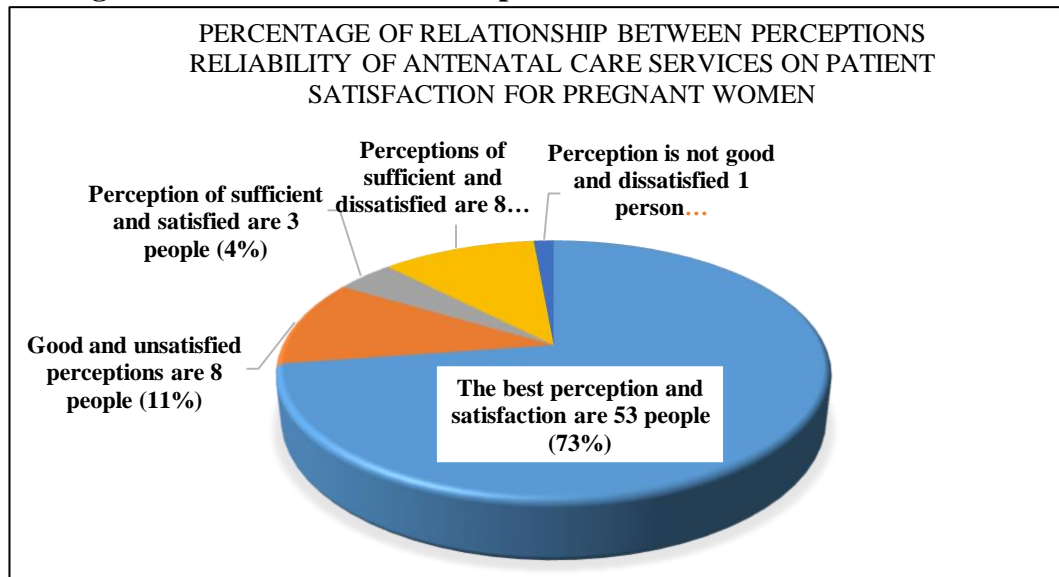


Figure 1 shows that of the 73 research subjects, the majority of people gave good perceptions and were satisfied with antenatal care services 73%, gave good perceptions and were not satisfied 11%, gave enough perceptions and dissatisfied 11%, and then gave almost good and satisfied perception 4%, the last one just 1% gave a disreputable and unsatisfied perception of antenatal care services.

The results of data analysis using the Spearman rank test obtained a ρ value of 0.001 ($\rho < 0.05$). So that the H_0 was rejected, there was a relationship between the perception of the reliability of antenatal care services on the satisfaction of pregnant women patients at the North Ponorogo Health Center during the COVID-

19 pandemic. The coefficient (r) is 0.546, meaning that the two variables have a strong correlation and the direction of the relationship is positive.

The results of this study are in line with research conducted by Khoeriah, dkk (2021). The research was proven using the chi-square test with a value of $\rho=0.000$ ($p<0.05$), which means there is a significant relationship between the quality of antenatal care service reliability and the level of satisfaction of pregnant women. This shows the compatibility between the expectations of the majority of pregnant women patients for antenatal care services obtained at the North Ponorogo Health Center and the reliability dimension.

In this study, 8 research subjects gave good reliability perceptions but were dissatisfied with antenatal care services. On the reliability dimension, questions about antenatal care services starting on time get the lowest score compared to the other questions on the reliability dimension. This means that there are still some patients who think that the antenatal care service does not start on time. According to Septiani's research dkk (2017), the queue for outpatients was highest on average during the initial opening hours of the registration counter. In the early hours of opening the registration counter for antenatal care patients, you have to line up with quite a lot of other public patients. This is what makes patients feel unsatisfied because they have to queue for quite a long time in the waiting room with many other patients, especially during the COVID-19 pandemic as it is now.

The reliability dimension is the ability of service providers to provide services as promised to patients. Of the five dimensions, service quality and reliability are the most prominent dimensions for clients. Because this dimension requires the professionalism of health workers, how do health workers provide services in accordance with established service standards.

Figure 2. Correlation between Perceived Responsiveness of Antenatal Care Services and Patient Satisfaction of Pregnant Women at North Ponorogo Health Center During the COVID-19 Pandemic September-October 2021

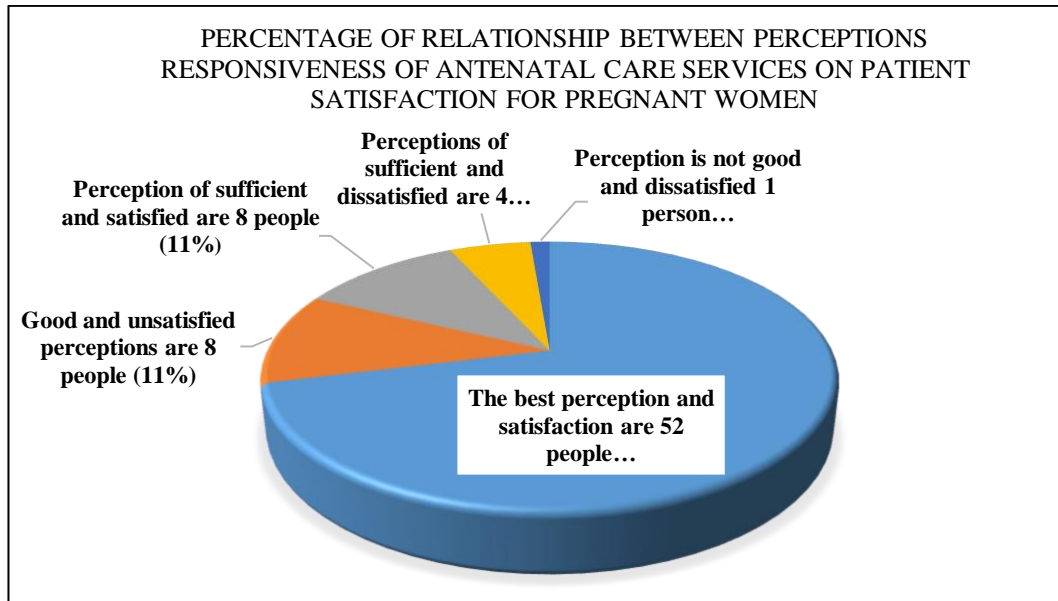


Figure 2 shows that of the 73 research subjects, the majority of people gave good perceptions and were satisfied with antenatal care services 71%, gave good perceptions and were not satisfy 11%, gave almost good and satisfied perception 11%, and then gave enough perceptions and dissatisfied 6%, the last one just 1% gave a disreputable and unsatisfied perception of antenatal care services.

The results of data analysis using the Spearman rank test obtained a ρ value of 0.001 ($\rho < 0.05$). So that the H_0 was rejected, there was a relationship between the perception of the responsiveness of antenatal care services on the satisfaction of pregnant women patients at the North Ponorogo Health Center during the Covid-19 pandemic. The coefficient (r) is 0.510, meaning that the two variables have a strong correlation and the direction of the relationship is positive.

This research is in line with the research of Nurfadilah dkk (2019), as evidenced by the chi-square statistical test with a ρ value of 0.000 < 0.05 , meaning that there is a significant relationship between responsiveness and satisfaction of pregnant women. So that there is a match between the expectations of the majority of pregnant women for antenatal care services obtained by the Public Health Center on the responsiveness dimension. This study, found that 8 research subjects gave good perceptions but were dissatisfied with antenatal care services. In the responsiveness dimension, the question regarding the patient's time to get antenatal care services at the North Ponorogo Health Center got the lowest score compared

to the other questions in the responsiveness dimension. This means that there are still some patients who think that it takes a long time to get comprehensive antenatal care services. Responsiveness is the ability of health workers to respond quickly to complaints submitted by patients. Health workers must be sensitive and patient to listen to patient complaints and understand the wishes of the patient.

Figure 3. Correlation between Perceived Assurance of Antenatal Care Services and Patient Satisfaction of Pregnant Women at North Ponorogo Health Center During the COVID-19 Pandemic September-October 2021

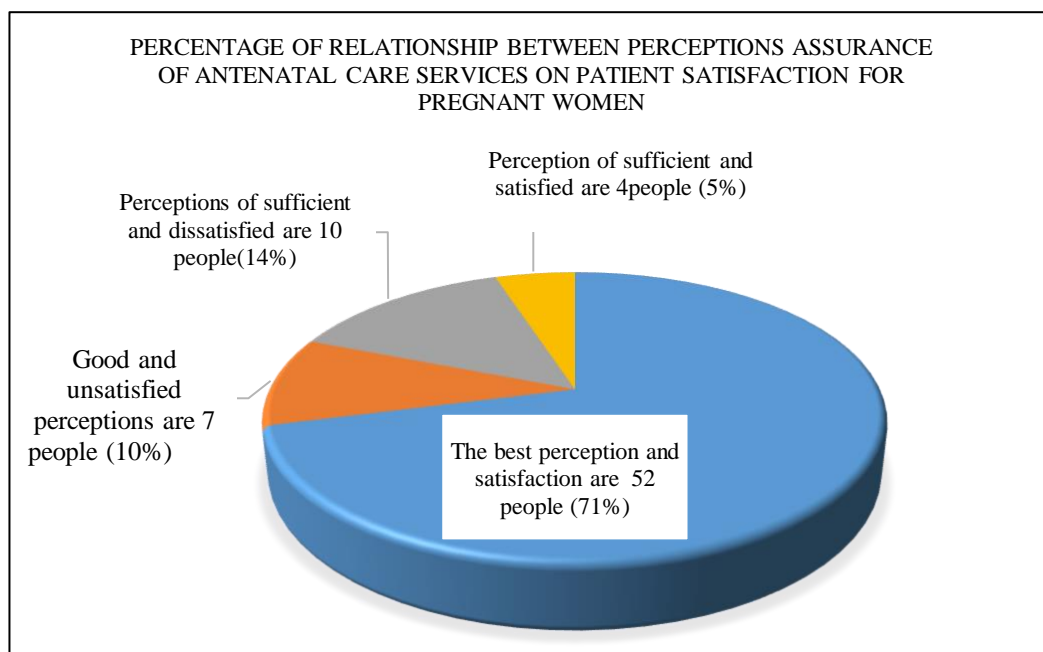


Figure 3 shows that of the 73 research subjects, the majority of people gave good perceptions and were satisfied with antenatal care services 71%, gave good perceptions and were not satisfied 10%, gave almost good and satisfied perceptions 14%, and then 5% gave enough perceptions and dissatisfied of antenatal care services.

The results of data analysis using the Spearman rank test obtained a ρ value of 0.001 ($\rho < 0.05$). So that the H_0 was rejected, there was a relationship between



the perception of the *assurance* of antenatal care services on the satisfaction of pregnant women patients at the North Ponorogo Health Center during the COVID-19 pandemic. The coefficient (r) is 0.555, meaning that the two variables have a strong correlation and the direction of the relationship is positive.

This research is in line with study conducted by Sampouw (2019). The research was proven using the Pearson Correlation test with a p value of 0.013 ($p < 0.05$), means that there is a significant relationship between the quality of antenatal care services and the satisfaction of pregnant women from the assurance aspect. This shows the compatibility between the expectations of the majority of pregnant women patients for antenatal care services on the guarantee dimension.

This study was found that 7 research subjects gave good perceptions but were dissatisfied with antenatal care services. The assurance dimension is a combination of knowledge, courtesy, and the ability of health workers to generate trust from patients. Patients do not only have hope for the extensive knowledge possessed by health workers but also for the attitude of the staff to be good and not belittle patients. Thus, patients will feel comfortable, open, and trust health workers.

If the patient's perceived service quality guarantee is lower than his expectations, the quality of health services will not be satisfactory. Whether a service quality is good or not depends on how service providers can satisfy patient expectations consisten (Kurniatri dan Sunaryadi, 2016).

Figure 4. Correlation between Perceived Empathy of Antenatal Care Services and Patient Satisfaction of Pregnant Women at North Ponorogo Health Center During the COVID-19 Pandemic September-October 2021

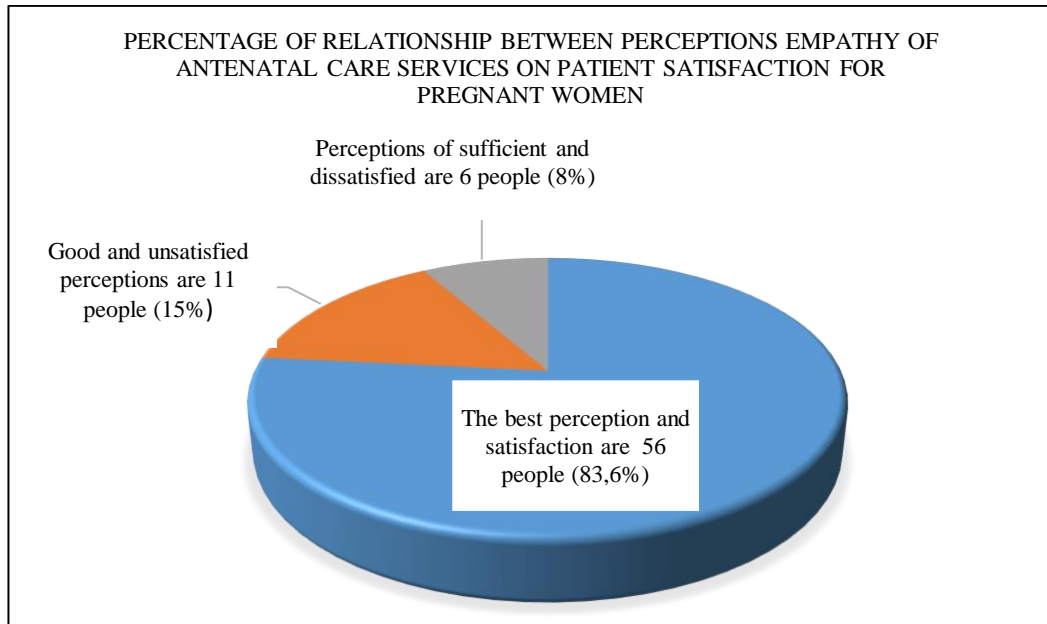


Figure 4 shows that of the 73 research subjects, the majority of people gave good perceptions and were satisfied with antenatal care services 83%, gave good perceptions and were not satisfied 15% and then 8% subjects gave enough perceptions and dissatisfied of antenatal care services.

The results of data analysis using the Spearman rank test obtained a ρ value of 0.001 ($\rho < 0.05$). So that the H_0 was rejected, there was a relationship between the perception of the *empathy* of antenatal care services on the satisfaction of pregnant women patients at the North Ponorogo Health Center during the COVID-19 pandemic. The coefficient (r) is 0.543, meaning that the two variables have a strong correlation and the direction of the relationship is positive.

In this study, the empathy dimension obtained the highest total score when compared to other dimensions. This is the majority of research subjects who consider that the empathy of health workers is a so important aspect when conducting antenatal care visits. However, in this dimension, 11 research subjects were also found to have good perceptions and were dissatisfied with antenatal care services. In the empathy dimension the questions regarding the willingness of midwives to listen to patient complaints, the friendliness of midwives when providing antenatal care services, and the attention of staff towards patients both scored lower scores than the question regarding patient privacy which was well-guarded by officers.

The dimension of empathy is the care of officers to give personal attention to clients. In this dimension, health workers listen to patient complaints sincerely and try to protect patient privacy.

Figure 5. Correlation between Perceived Tangible of Antenatal Care Services and Patient Satisfaction of Pregnant Women at North Ponorogo Health Center During the COVID-19 Pandemic September-October 2021

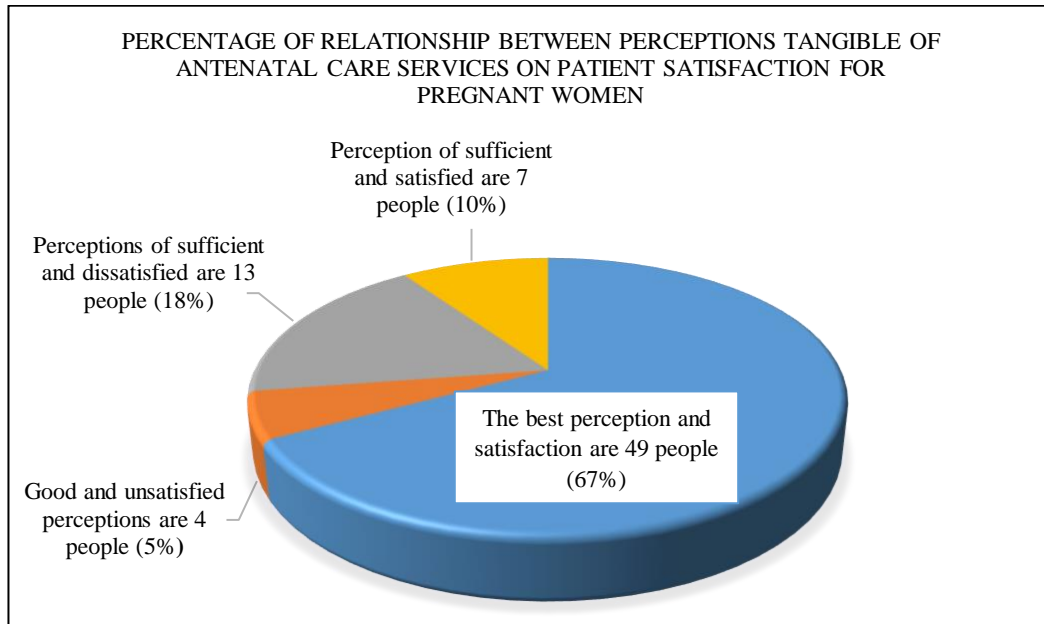


Figure 5 shows that of the 73 research subjects, the majority of people gave good perceptions and were satisfied with antenatal care services 67%, gave good perceptions and were not satisfied 4%, gave almost good and satisfied perceptions 10%, and then 18% gave enough perceptions and dissatisfied of antenatal care services.

The results of data analysis using the Spearman rank test obtained a ρ value of 0.001 ($\rho < 0.05$). So that the H_0 was rejected, there was a relationship between the perception of the tangible of antenatal care services on the satisfaction of pregnant women patients at the North Ponorogo Health Center during the COVID-19 pandemic. The coefficient (r) is 0.606, meaning that the two variables have a strong correlation and the direction of the relationship is positive.

In this study, the direct evidence dimension obtained the lowest total score when compared to the other dimensions. In this dimension, there are 4 people who give good perceptions but are not satisfied with antenatal care services. It is possible

that the patient thought that during the COVID-19 pandemic it was necessary to carry out strict COVID-19 screening, and the patient was still dissatisfied with the COVID-19 screening carried out by the public health center.

Results of Multivariate Analysis

The results of multiple linear regression tests to find out the effect of the independent variables on the dependent variable is presented in table 2 below.

Table2. Results of Multiple Linear Regression Analysis

Variable	B	Sig
Reliability	0,122	0,445
Responsiveness	0,97	0,492
Assurance	0,57	0,642
Empathy	0,281	0,011
Tangible	0,428	0,000
Test F		0,000
R2		0,560

Based on Table 2, above the sig. on test F is 0.000 so it can be concluded that with a 95% confidence level simultaneously the independent variables have a significant effect on the dependent variable. Effective Contribution Value independent variable to the dependent variable can be seen from the adjusted R square that is equal to 0.560. It can be interpreted that the donation effectiveness of Reliability, Responsiveness, Assurance, Empathy, and Tangible to Patient Satisfaction by 56% so that 44% is given by other variables.

In the variable Reliability sig. = 0.445>0.05, the Responsiveness variable is sig. = 0.492>0.05 and the Assurance sig variable. = 0.642>0.05, this shows that reliability, responsiveness, and assurance have no significant effect on patient satisfaction. While the variable Empathy sig. = 0.011<0.05 and variable Tangible sig.= 0.000<0.05 indicates that empathy has a significant effect significant in patient satisfaction.

CONCLUSION, SUGGESTION

There is a strong and positive relationship between perceptions of the quality of antenatal care services and patient satisfaction of pregnant women at the North Ponorogo Health Center during the COVID-19 pandemic. The better the perception



of antenatal care services, the more satisfied pregnant women patients are with antenatal care services at the Public Health Center during the COVID-19 pandemic. Upcoming studies may be able to add some patient characteristics or research variables. Because the more variables studied, the more statistical differences that can be compared between one study and another.

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