

# The Relationship of Pregnant Women's Knowledge of COVID-19 Prevention with Ante Natal Care (ANC) Visits

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**Abstract:** ANC examination is an examination carried out on pregnant women which aims to improve the physical and mental health of pregnant women to the maximum so that they are able to face the delivery period, the transition period from the time after giving birth to when the uterus returns to normal as before pregnancy, as well as preparation for exclusive breastfeeding. ANC visits should be carried out four times during pregnancy, namely in the first and second trimesters, at least one visit each and in the third trimester at least 2 visits. However, the COVID-19 pandemic has hampered ANC visits for pregnant women due to the lack of knowledge of pregnant women about COVID-19. Objectives: To find out the knowledge of pregnant women about COVID-19 prevention, to find out ANC visits, to determine the relationship between knowledge of pregnant women about COVID-19 prevention and ANC visits. Design: A design using descriptive analytic method with a Cross Sectional design. Method: Total population is 39 people, with saturated sampling technique, the sample is 39 people. Findings: Most of respondents' Ante Natal Care Visits met the standards and that the majority of respondents had good knowledge about COVID-19 prevention. The result of the study is that there is a relationship between knowledge about COVID-19 prevention and ANC visits. Conclusion: During the pandemic, knowledge about preventing COVID-19 needs to be increased so that pregnant women continue to make ANC visits. Clinical Evidence: Each individual responds and has a different perception in dealing with the COVID-19 pandemic. Knowledge of COVID-19 prevention aims to encourage pregnant women to continue to visit ANC because they comply with health protocols.

**Keywords:** Knowledge, COVID-19 Prevention, ANC Visits

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## 1. Introduction

The high number of COVID-19 cases has prompted the government to enforce the PSBB system, which began to be implemented in all areas referred to as red zones in Indonesia on April 4, 2020. In addition to the implementation of PSBB, people began to limit activities outside their homes due to fear of being infected with COVID-19, especially to come to health care facilities. This also applies to pregnant women, where the rate of ANC visits at health facilities is reduced [1].

ANC examination is an examination carried out on pregnant women which aims to improve the physical and mental health of pregnant women to the maximum so that they are able to face the delivery period, the transition period

from the time after giving birth to when the uterus returns to normal as before pregnancy, as well as preparation for exclusive breastfeeding. ANC visits should be carried out four times during pregnancy, namely in the first and second trimesters, at least one visit each and in the third trimester at least 2 visits. [2] However, the COVID-19 pandemic has hampered ANC visits for pregnant women due to the lack of knowledge of pregnant women about COVID-19. Based on Siregar's research (2020) with 37 samples, it was found that the majority of respondents (57%) had a poor understanding of preventing COVID-19 infection.

Based on the issue of the Ministry of Health [3], regarding guidelines for the prevention and control of Coronavirus Disease, there are several steps that can be taken to prevent transmission, including: Cleaning hands using soap or hand

sanitizer; Not touching nose and mouth: When coughing or sneezing cover your nose and mouth with a tissue/mask or point your mouth and nose towards your elbow; Always wear a medical mask; Keep your distance from people when in a crowd.

Based on research by Rizkia, et al. [6] about relationships knowledge with the behavior of pregnant women in undergoing pregnancy During the COVID-19 pandemic, research results were obtained shows that there is a relationship between knowledge and mother's behavior in carrying out her pregnancy during the pandemic COVID-19 ( $p=0.001$ ). Number of respondents from North Aceh 50 people (36.2%), and Pidie 88 people (63.8%). Obtained the majority of the knowledge level of pregnant women is in the good category, namely 70 people (50.7%), it can be concluded that pregnant women in Pidie and Aceh Utara have a good level of knowledge regarding preparation for pregnancy during the COVID-19 pandemic.

Based on other research conducted by Ariestanti, et al. [7], at BPM Rosnawati, Cipayung, East Jakarta about the determinants of behavior of pregnant women doing antenatal care During the COVID-19 pandemic, from 45 respondents of 3rd trimester pregnant women, there are 33 people (73.3%) who routinely perform ANC and who do not routinely were 12 people (26.7%). Based on this study, maternal age, maternal education, knowledge, attitudes and related health facilities significantly with the behavior of pregnant women carrying out examinations during pregnancy.

Based on data obtained on March 12-15 2021, There are 4 pregnant women who make ANC visits at the Clinic Pratama Mariana Medan, said that the COVID-19 pandemic did not affect the ANC visit rate and don't trust it completely the existence of COVID-19, and lack of understanding of the dangers of COVID-19. And from secondary data obtained from the Primary Mariana Clinic in Medan, there is one pregnant woman who is exposed to COVID-19 after being tested antigen and immediately referred to the hospital. So that researchers are interested to take the title of the relationship between knowledge of pregnant women about COVID-19 prevention with ANC visits at the Mariana Pratama Clinic Medan in 2021.

## 2. Method

The type of research used in this research is a descriptive analytic survey research with a cross sectional design. Cross sectional is a research with an observation approach or data collection at once (point time approach), meaning that each research subject is only observed once. [4]. This research was conducted at the Mariana Primary Clinic Medan, Jl. Candlenut No. 39 Kp. Lalang district. Sunggal Kab. Deli Serdang. The population in this study were all pregnant women in the Mariana Primary Clinic. The sampling technique used is saturated sampling, and the research sample is 39 people.

Data collection in this study began with obtaining a letter

of recommendation for permission to carry out research from the Educational institution of the Faculty of Nursing and Midwifery, University of Prima Indonesia and submitting an application for permission to carry out research at the Pratama Mariana Clinic, Jl. Candlenut No. 39 Kp. Lalang district. Sunggal Kab. Deli Serdang. After obtaining permission, the researcher first gave an explanation of the objectives, benefits and research process. If they agree to be a respondent, the respondent signs the agreement letter. Then the researcher provided an instrument to collect data in the form of a demographic questionnaire and a question questionnaire about the knowledge of pregnant women regarding the prevention of COVID-19. Furthermore, the researchers explained how to fill out the questionnaire to pregnant women [13].

After the questionnaire was filled in, the instrument was collected again by the researcher and checked for completeness. If the instrument is not filled out completely, it will be completed on the spot. [12]

Data analysis includes univariate and bivariate. Univariate data analysis based on knowledge about COVID-19 prevention and ANC visits was then analyzed in a frequency distribution table. Bivariate data analysis based on the relationship between knowledge of pregnant women about COVID-19 prevention and ANC visits. This study uses the Chi Square test statistical test on the SPSS program. Chi Square is used to test the relationship or effect of two nominal variables.

The reliability of the study findings was ensured by the researcher regarding the analysis [15] Initial ideas about the research were discussed with the research team. This study uses a questionnaire that has been modified according to research needs. The research findings come from data collected from the initial survey and respondents' experiences regarding knowledge about COVID-19 prevention and ANC visits.

**Table 1.** Knowledge of Pregnant Women About COVID-19 Prevention and ANC Visits.

No	Knowledge	Frequency	Percentage (%)
1	Good	38	97.4
2	Enough	1	2.6
	Total	39	100.0

  

No	Visit	Frequency	Percentage (%)
1	Standard	31	79.5
2	Not Up to Standard	8	20.5
	Total	39	100.0

Based on the table, the majority of respondents have good knowledge about COVID-19 prevention as many as 38 people (97.4%), while the minority of respondents have sufficient knowledge about COVID-19 prevention as many as 1 person (2.6%). The majority of respondents who made ANC visits according to standards were 31 people (79.5%), while the minority of respondents who visited non-standard ANC were 8 people (20.5%).

**Table 2.** Relationship of Knowledge of Pregnant Women About COVID-19 Prevention and ANC Visits.

Implementation							
Knowledge	Standard		Not Up to Standard		Total		P (Value)
	N	%	N	%	N	%	
Good	31	79.5	7	17.9	38	97.4	0.046
Enough	0	0	1	2.6	1	2.6	
Less	0	0	0	0	0	0	

Based on the table of 39 respondents at the Pratama Mariana clinic, 38 respondents (97.4%) who had good knowledge carried out ANC visits according to standards as many as 31 people (79.5%), while respondents who did not visit ANC according to standards were 7 people (17.9%). Respondents who have sufficient knowledge as many as 1 person (2.6%) carry out ANC visits not according to standards as many as 1 person (2.6%), while respondents who carry out ANC visits according to standards are 0 people (0%).

Results calculation using the Chi Square statistical test method of the relationship between knowledge of pregnant women about COVID-19 prevention and ANC visits ( $\alpha = 0.05$  and  $df = 1$ , the result is  $p$  value = 0.046,  $H_0$  is accepted and  $H_a$  is rejected. Which means that there is a significant relationship between knowledge of pregnant women about COVID-19 prevention and ANC visits.

### 3. Discussion

According to Notoatmojo [5] things that can affect a person's level of knowledge are: The level of education, where the higher a person's understanding, the better the knowledge he has: Jobs affect a person's level of knowledge where the more worthy the job is, it can be interpreted the level of knowledge is better: quite mature the level of knowledge is better than people who are still young: The environment is a condition or condition around a person, where being in an environment of knowledgeable people will affect the increase in everyone's knowledge: The culture that exists in society will affect the level of acceptance of one's knowledge.

According to the researcher's assumption, respondents who have good knowledge are influenced by the level of education of the respondents, namely the majority of high school students so that it is easier for respondents to understand information about preventing COVID-19 [11], this makes respondents not afraid to do pregnancy tests so that the majority of ANC visits are according to standards. Meanwhile, respondents who are sufficiently knowledgeable are caused by the respondent's education, namely elementary school and is also influenced by the respondent's work as a housewife which can affect the level of socialization with the surrounding environment, so that the respondent's knowledge of how to prevent COVID-19 is lacking and the level of ANC visits does not meet the standards. The majority of respondents' ANC visits met the standards because the respondents' knowledge of preventing COVID-19 was good.

ANC examination is a pregnancy examination that aims to improve the physical and mental health of pregnant women optimally so that they are able to face the period of childbirth, postpartum, preparation for exclusive breastfeeding, and the return of normal reproductive health as before pregnancy. ANC visits should be done 4 times during pregnancy, once in the first trimester, once in the second trimester, and twice in the third trimester [8].

According to the researcher's assumption, that knowledge is an understanding or view of someone who previously did not understand a thing or information, so knowing this thing or information is very important to do. With good knowledge about the prevention of COVID-19 in oneself, ANC visits at health service centers will better meet the standards of ANC visits that have been set. Meanwhile, if the respondent's level of knowledge about COVID-19 prevention is lacking, then ANC visits at health service centers are also low. From the results of the study, the majority of respondents have good knowledge because of the high sense of public concern for health so that it becomes a support for them to know more information about COVID-19 [9].

#### 3.1. Study Limitations

The study was conducted on 39 pregnant women who came to visit the Midwife clinic. The researchers obtained data on ante natal care (ANC) visits despite the COVID-19 pandemic [14].

#### 3.2. Recommendation

For the safety of pregnant women and fetuses from the transmission and effects of COVID, it is necessary to call for support for the implementation of PSBB (Large-Scale Social Restrictions) in areas with COVID-19 incidence rates ranging from yellow to black zones, as well as updating and increasing socialization of guidelines for handling pregnant women and maternity mothers who are infected with COVID-19 to all health workers and health service facilities who carry out pregnancy and childbirth examinations.

#### 3.3. Implications for Midwifery Practice, Research and Administration

The findings of this study can inform the midwife development program to be able to provide routine education to pregnant women during the pandemic [10]. In addition, to reduce the morbidity and mortality associated with COVID-19, good education management is needed. Education aims to make pregnant women and the public aware of COVID-19 prevention. These findings can start a quantitative study on

the relationship between knowledge of COVID-19 prevention and ANC visits to pregnant women.

## 4. Conclusion

The majority of respondents have good knowledge, while the minority of respondents are knowledgeable enough about COVID-19 prevention. The majority of respondents meet the standards of ANC visits, with accurate information from local health workers and social media used to influence public knowledge for the better so that ANC visits can run according to the standards set has been established. There is a relationship between knowledge of pregnant women about COVID-19 prevention and ANC visits.

## Ethical Considerations

This research has been approved by the Ethics Commission of Prima Indonesia University. Permission was also obtained to obtain approval for the study site. Researchers have previously visited the unit to obtain information and establish relationships with midwives and respondents. Respondents were briefed on the benefits of the study and asked to sign a consent form and notify them of their freedom to participate or withdraw from the study. An identification code is used to ensure the anonymity and confidentiality of each respondent.

## Finding

The results of this study obtained univariate and bivariate analysis data. The majority of respondents are well informed, while the minority of respondents have sufficient knowledge about COVID-19 prevention at the Mariana Primary Clinic. Majority respondents meet the standards of ANC visits at the Primary Clinic Mariana. There is a relationship between knowledge of pregnant women about prevention COVID-19 with ANC visit at Mariana Primary Clinic.

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