

# LEVEL OF ANXIETY, KNOWLEDGE AND MOTIVATION OF PREGNANT WOMEN TOWARDS PRENATAL EXAMINATION DURING THE COVID 19 PANDEMIC

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## Abstract

The COVID-19 pandemic threatens the entire population. But there are specific groups, such as pregnant women, who are predicted to be at higher risk and vulnerable to infectious diseases. Knowing and understanding Covid-19 is crucial to managing the pandemic well and minimizing anxiety when visiting health services. Every pregnant woman can manage her pregnancy if she has the motivation to achieve the desired pregnancy goals. The purpose of this study was to determine the knowledge and anxiety of pregnant women about COVID-19, as well as the motivation of pregnant women to take a pregnancy test. This study is a correlational-quantitative cross-sectional study followed by an online survey to assess the knowledge, anxiety, and motivation of health workers about pregnancy monitoring during the COVID-19 pandemic. Multiple linear regression analysis was used to test the relationship of the three variables. Study Results: There is a significant influence between knowledge and pregnancy management during the Covid-19 pandemic. Recommendation: Midwives should provide information on the importance of pregnancy management through training and counseling.

**Keywords:** Anxiety Level, Knowledge of Pregnant Women, Motivation.

## INTRODUCTION

COVID-19 is a disease caused by the coronavirus. The coronavirus was first detected in Wuhan in December 2019 and first in Indonesia on March 2, 2020, and spread to 34 provinces on April 9, 2020. The most affected provinces are Jakarta, East Java, and West Java. . Until 2021, Indonesia was still hit by the Covid-19 pandemic. As of October 5, 2021, 4,220,206 Indonesians were reportedly exposed to Covid-19. In addition to medical risks, this pandemic also has enormous psychological and social consequences. In this unprecedented situation, it is difficult to predict the psychological and emotional impact of COVID-19. In Indonesia, pregnant women are part of the population at high risk of exposure to COVID-19.

At the time of exposure, 51.9% of pregnant women with confirmed COVID-19 were asymptomatic. As of April 2021, 72% of COVID-19 infections in pregnant women occurred at more than 37 weeks of gestation. There were 45 cases that required intensive care and a mortality rate of 3%. A study conducted in the first country, China, showed that fear and uncertainty of the unknown can lead to mental health problems such as stress, anxiety, depression, somatization, and bad behaviors such as increased alcohol and tobacco use (Shigemura et al., 2020).

A study of 1,210 people in 194 Chinese cities using the Depression, Anxiety and Stress Scale (DASS-21) found that 16.5% of the sample had mild depressive symptoms. 28.8% had moderate anxiety symptoms; and 8.1% reported severe stress levels (Wang et al, 2020). Stress, anxiety and depression levels measure psychological states resulting from poor health (Wang et al, 2020).

Anxiety is a bad experience that the body responds to with physiological stimuli that reveal symptoms such as anxiety, fear of danger that a person feels. The birth process and fetal condition usually cause anxiety in pregnant women (Baro'ah, 2020).

The existence of concerns and worries related to pregnancy and the Covid-19 pandemic will increase the anxiety of pregnant women. Therefore, knowing and understanding Covid-19 is very important to address this pandemic properly (Jamil et al, 2020). Prenatal care is a planned program of monitoring, education and health services for pregnant women so that their pregnancy and childbirth are safe, satisfying. Every pregnant woman can track her pregnancy if she is motivated to achieve the desired pregnancy goals (Prasojo et al., 2015).

The emergence of the Covid-19 pandemic is expected to increase the anxiety of pregnant women, which in turn will have an impact on the participation of pregnant women in antenatal care if not balanced with adequate information about Covid-19. The low number of visits by pregnant women was also revealed from a survey conducted by the author at one of the primary clinics in Pekanbaru, where the number of visits by pregnant women decreased during the Covid-19 pandemic. . Therefore, the author wants to know the level of anxiety, knowledge and motivation of pregnant women in managing pregnancy during the Covid 19 pandemic.

## RESEARCH METHODS

This research method is a correlational quantitative research, where the cross-sectional method is the population of pregnant women recorded in the medical records of the Arrabih Pratama Clinic Pekanbaru. The population of this study were all third trimester pregnant women registered at Arrabih Pratama Clinic from August to September 2021, totaling 30 people.

The entire sample was used for sampling in this study. Where researchers studied all 30 pregnant women who visited the Arrabih Pratama Clinic between January and July 2022. The sampling technique used was total sampling, which is a sample survey method where all third trimester pregnant women who visited the Arrabih Pratama Clinic between January and July 2022 were selected.

## RESULT AND DISCUSSION

### a. Result

#### 1) Univariate Analysis

The univariate analysis of several independent variables describing each variable, including pregnancy test, knowledge, anxiety level and motivation, is described below:

**Table 1: Frequency distribution of antenatal check-ups, knowledge, anxiety level and motivation**

Variabel	Frekuensi	
	N = 30	%
<b>Pregnancy Screening</b>		
Not regular (<6)	19	63,3
Rutin (≥ 6)	11	36,7
<b>Pengetahuan</b>		
Kurang	16	53,3
Baik	14	46,7
<b>Tingkat Kecemasan</b>		
Tinggi	18	60
Rendah	12	40
<b>Motivasi</b>		
Rendah	17	56,7
Tinggi	13	43,3

Pregnancy test, information, anxiety and motivation are in Table 1. The results of univariate analysis showed that the majority did not routinely do pregnancy tests, even 19 people (63.3%), 53.3% of mothers had poor knowledge, 60% had high anxiety and 56.7% had low motivation. There were no homogeneous variables (the value of one category was danlt;15%).

## 2) Bivariate Analysis

Bivariate analysis aims to determine the effect of anxiety level, knowledge and motivation of pregnant women on pregnancy control during the Covid-19 pandemic with pregnancy control during the Covid-19 pandemic using the Chi-square test where  $\alpha = 0.05$ , CI; 95.

**Table 2: Resume of Bivariate Analysis Results**

Variables	Pregnancy Screening					p Value	OR (95 % CI)
	Not Routine		Routine		Total		
	N	%	n	%	n (%)		
<b>Knowledge</b>							
Less	15	88,2	2	11,8	17	<b>0,004</b>	16,875 (2,555- 111,463)
Both	4	30,8	9	69,2	13		
<b>Levels of anxiety</b>							
high	15	83,3	3	16,7	18	<b>0,017</b>	10,00 (1,781- 56,150)
low	4	33,3	8	66,7	12		
<b>Motivation</b>							
Low	14	87,5	2	12,5	16	<b>0,011</b>	12,600 (1,999- 79,436)
High	5	63,3	9	36,7	14		

Table 2 shows that among the three independent variables, all independent variables are significantly associated with pregnancy control, namely knowledge, anxiety level and motivation.

## 3) Multivariate Analysis

After conducting bivariate analysis, multivariate analysis was conducted to determine the most dominant relationship between the independent and dependent variables. In

the first stage of multivariate analysis, possible independent variables (multivariate candidate variables) included in multivariate analysis were identified, namely bivariate analysis variables with a  $p$ -value  $\leq 0.25$  (Hastono, 2007). The multivariate analysis used was multivariate logistic regression. The bivariate selection results showed 3 variables had a  $p$ -value  $\leq 0.25$  so that all variables included in the multivariate analysis were knowledge, anxiety level, and motivation.

**Table 3: Bivariate Selection Results**

No	Variabels	<i>p value</i>	OR
1.	Knowledge	0,002	Kandidat
2.	Axiety levels	0,045	Kandidat
3.	Motivation	0,159	Kandidat

**a. Multivariate Modeling**

Setelah melakukan analisis multivariat terhadap tiga variabel independen dengan studi kehamilan, disusun Tabel 4 analisis model multivariat sesuai Tabel 3, yang terlihat bahwa terdapat beberapa variabel dengan  $p$ -value  $> 0,05$  yaitu. variabel berikut:

**Table 4: Multivariate Modeling I**

No	Variables	<i>p value</i>	OR	(95 % CI)	
				Lower	Upper
1.	Knowledge	0,045	12,257	1,062	141,476
2.	Axiety Levels	0,129	7,376	0,557	97,631
3.	Motivation	0,171	5,075	0,496	51,879

Table 4 shows that there were 2 variables with  $p$ -value  $> 0.05$ , namely anxiety and motivation. Variables with  $p$ -value  $> 0.05$  were gradually excluded from the next multivariate model, starting with the highest  $p$ -value. Table 4 shows that the motivation variable (P Value 0.171) and anxiety level (P Value 0.129) have the highest  $p$ -value, so the motivation variable was excluded from the model, the results obtained in table 5 are as follows. ::

**Table 5: Multivariate Modeling II**

No	Variabels	<i>p value</i>	OR	(95 % CI)	
				Lower	Upper
1.	Knowledge	0,016	19,282	1,736	214,143
2.	Axiety Levels	0,022	15,640	1,484	164,807

After the second modeling, we look at the change in OR value (OR before eliminating variable X - OR after variable X / OR before eliminating variable X).

**Table 6: Change in OR Value With and Without Motivation Variable**

No	Variabels	OR with motivation variables	OR without motivation variables	Change of OR (%)
1.	Knowledge	12,257	19,282	-57,3137
2.	Axiety Levels	7,376	15,640	-112,036
3.	Motivation	5,075	-	-

Table 6 above shows that the change in knowledge and anxiety level variables OR  $> 10\%$ . This means that the stimulus variable interferes with the knowledge and anxiety level variables, so it is re-entered into the model, then the anxiety level variable is eliminated again, namely the variable with the second largest  $p$  value, with the following results.

**Table 7: Multivariate Modeling III**

No	Variabels	p value	OR	(95 % CI)	
				Lower	Upper
1.	Pengetahuan	0,041	8,893	1,088	72,658
2.	Motivasi	0,017	12,401	1,555	98,887

After the third multivariate modeling, the changes in OR values (OR before variable X is excluded - OR after variable X is excluded / OR before variable X is excluded x 100%) on other independent variables with or without the anxiety level variable are shown in table 8 as follows:

**Table 8: Change in OR Value With and Without Anxiety Level Variable**

No	Variabels	OR with anxiety level variables	OR without anxiety level variables	Change of OR (%)
1.	Knowledge	12,257	8,893	27,44817
2.	Axienty Levels	7,376	-	-
3.	Motivation	5,075	12,401	-144,358

Table 8 above shows changes in knowledge and motivation variables OR > 10%. This means that the knowledge and motivation variables are confused with the anxiety level variable, so the anxiety level variable is re-entered into another multivariate model.

**Table 9: Final Multivariate Modeling**

No	Variabel	p value	OR	(95 % CI)	
				Lower	Upper
1.	Knowledge	0,045	12,257	1,062	141,476
2.	Axienty levels	0,129	7,376	0,557	97,631
3.	Motivation	0,171	5,075	0,496	51,879

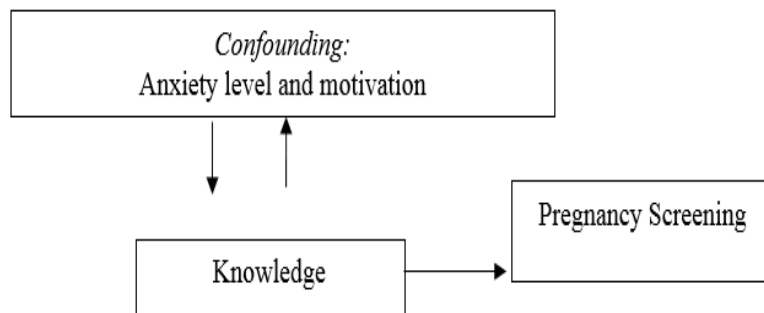
Multivariate analysis with three models shows that the significant association with pregnancy control in Table 9 is the knowledge variable, where mothers who are less informed have a 12-fold risk of not performing routine pregnancy control during the Covid-19 pandemic compared to mothers who are well informed (CI 95). %: OR = 1.062-141.476), while the confounding variables are the variables of anxiety level and motivation to control pregnancy during the Covid-19 pandemic.

## DISCUSSION

Knowledge is the result of curiosity through the process of the senses, including the eyes and ears. Knowledge is an important area in shaping overt behavior (Donsu, 2017). Personal and environmental factors influence health behavior. Knowledge is one of the personal factors that can influence behavior (Notoatmodjo, 2012). People who receive information are quite easy to understand and understand the problem (Bruin et al, 2020). The results showed that mothers with poor knowledge were 12 times more likely not to have routine prenatal check-ups during the Covid-19 pandemic than mothers with good knowledge (95% CI: OR = 1062-141476). Public knowledge about COVID-19 plays an important role in determining the willingness of the community to accept this measure as a behavior change in health care facilities. Although various policies to fight the COVID-19 pandemic are unprecedented, success or failure depends on community behavior (Supinganto et al., 2021).

The results of this study are in accordance with Azizah's research (2021) with a p-value of 0.037 andlt;  $\alpha$  (0.05), meaning that there is a relationship between knowledge and pregnancy control during the Covid-19 pandemic.

In this study, 2 confounding variables were found, namely the variables of anxiety level and motivation as shown in Figure 3 below:



**Figure 1: Influence of Knowledge and Confounding Variables with Anxiety Level and Motivation**

Information from mothers is very important, especially now that Covid-19 has made pregnant women feel worried about pregnancy control, especially since pregnant women are one of the risk groups that are easily infected with the virus (Ike and Putri, 2021). Politics related to the current pandemic cannot be ignored as a risk factor affecting awareness and regularity of ANC visits. One of the contents of the ANC service guidelines for midwives during the Covid-19 pandemic is to transfer or conduct pregnancy hours and pregnancy consultations online, and counseling, information and training can be done online or by telemedicine (Padesi et al., 2021). According to Nurtin's research (2021), the level of knowledge and anxiety are interrelated, so pregnant women must seek more information so that their pregnancy is safe without fear. According to the researcher of pregnancy test kits during the Covid 19 pandemic, information is very important for mothers, but even if mothers have good information, when mothers have high anxiety and lack of motivation to take pregnancy tests, mothers do not routinely take pregnancy tests. The researchers suggested providing more information about the importance of birth control through education or counseling. Midwives can also take advantage of technological advances by adopting telecommunication tools that are now available to everyone, making it easier to check pregnant women even during the Covid-19 pandemic.

## CONCLUSIONS AND SUGGESTIONS

### Conclusions

Based on the description of the research results chapter and discussion chapter, the researcher draws the following conclusions:

- Mothers who did not routinely do pregnancy tests were 19 people (63.3%). Pada masa pandemi Covid-19 terdapat pengaruh yang signifikan antara pengetahuan dan tes kehamilan.
- Pregnancy tests do not significantly affect the level of anxiety and motivation during the Covid-19 pandemic. 4. The dominant factor in pregnancy testing is the information variable.
- The results showed that mothers with less knowledge were 12 times more likely to skip routine pregnancy tests than mothers with more knowledge.

### A. Suggestions



1. The need for midwives to provide information either through counseling or counseling about the importance of pregnancy checks.
2. The need for midwives to utilize technology to achieve visits from examining pregnant women through online media today. Midwives can use telemedia or whatsapp to find out the development or condition of pregnant women.

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