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# Anxiety level of third trimester pregnant women towards antenatal care visit compliance during the covid-19 pandemic



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#### ARTICLE INFO

#### ABSTRACT

The Covid-19 pandemic has impacted all areas of life, one of those is Article history: pregnant women. During the Covid-19 pandemic, pregnant women are terrified to conduct a pregnancy check. The purpose of this study Received June 28th, 2022 was to identify the correlation between the anxiety level of third Revised September 5th, 2022 trimester pregnant women towards antenatal care (ANC) visits during Accepted October 13rd, 2022 the Covid-19 pandemic. The study used a cross sectional study at the Sanden Public Health Center (PHC) from January to March 2022. The Keyword: sample was taken using purposive sampling of 45 people. Data was worry; collected by using a questionnaire. Data analysis used univariate and pregnancy test; bivariate (chi square) analysis. The results of the univariate analysis ANC appointment; showed that the majority of pregnant women who did not fulfill the visit spread of COVID-19. compliance experienced severe anxiety, namely 7 people (87.5%). While the majority of pregnant women who met the compliance visit experienced mild anxiety, namely 24 people (85.7%). The results of the bivariate analysis showed that there was a relationship between the level of anxiety of pregnant women in the third trimester and the level of compliance with ANC visits during the Covid-19 pandemic at the Sanden PHC in 2021 with a p value of 0.000. The majority of respondents at the Sanden PHC, Bantul Regency, were classified as not at risk, not working, highly educated, multigravida, experiencing mild anxiety levels, and fulfilling ANC visits. There is a relationship between the level of anxiety of pregnant women in the third trimester and the level of compliance with ANC visits during the Covid-19 pandemic. This is an open access article under the CC–BY-SA license.



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### INTRODUCTION

Corona Virus Disease 2019 (Covid-19) is a disease caused by Severe Acute Respiratory Syndrome Coronavirus-2 (SARS-CoV-2) virus. The number of cases in the world has reached 197 million cases of people exposed to Covid-19.<sup>1</sup> Bantul is the district with the most positive confirmed cases of Covid-19 in Yogyakarta as many as 31,795 cases. A systematic review studies state that 8.8% (n = 2743; 13 studies) of the 31,016 pregnant women with COVID-19 had information on the severity of their condition. 85.6% of them

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had COVID-19 that wasn't severe, and the remaining 14.4% had severe COVID-19.(1) During the Covid-19 pandemic, pregnant women feel afraid when they want to have their pregnancies examined. Anxiety in pregnancy is an emotional reaction that occurs in pregnant women related to the mother's concern with the welfare of herself and her fetus, the continuity of pregnancy, childbirth, the post-natal period and when it has become a mother.<sup>2</sup> Access to maternal health services, especially pregnancy services, has been impacted by the COVID-19 epidemic. There have been more mother and child deaths as a result of this disturbance to maternal health services. Studies have shown that individuals, particularly pregnant women, exhibit a variety of mental health symptoms during the massive spread of COVID-19, including stress, anxiety, fears about contamination, health issues, post-traumatic stress disorder, and suicidal thoughts. People's mental health has been impacted by the COVID-19 pandemic.(2) The prevalence of anxiety and depression in developed countries is around 7-20% and in developing countries it is more than 20%.<sup>3</sup> Based on the results of Wanda's research, it was found that gravidity and work were related to the anxiety of pregnant women in facing childbirth. Pregnant women also often experience changes or psychological disorders that can arise in pregnant women, namely the nature of disappointment, rejection, anxiety, and sadness experienced by pregnant women in the first trimester, which is estimated at 80%. In the second trimester, the mother's psychology seems calmer and has begun to adapt, while entering the third trimester, the mother's psychological changes will increase and become more complex when compared to the previous trimester, this is due to the growing condition of pregnancy.<sup>4</sup>

In this case the Covid-19 pandemic is one of the sources of the problem. In addition, it results in limited maternal and neonatal health services, such as a reduction in compliance with pregnancy visits and delayed classes for pregnant women. Antenatal Care (ANC) examination program is one of the efforts made to reduce MMR in Indonesia. Antenatal care coverage during pregnancy consists of K1, ideal K1, and K4. Pregnancy check-up (ANC) services at the Health Center are in accordance with the protocol of practical instructions for maternal and newborn health services during the Covid-19 pandemic, the first mandatory visit to pregnant women carried out in the first trimester is recommended by doctors for risk factor screening (HIV, syphilis, Hepatitis B), if the first visit is to a midwife, after the ANC is carried out, the pregnant woman is then given a referral for an examination to the doctor. The second mandatory visit carried out in the third trimester (one month before the estimate) must meet a doctor to prepare for labor. For the next visit, it can be done on the advice of health workers and preceded by an appointment to meet and ask the mother to study the KIA handbook.<sup>5</sup>

Although earlier research has indicated that high-risk births are associated with increased anxiety and sadness, there is not enough information to determine how the COVID-19 pandemic may affect expectant mothers. Patients with concomitant conditions are reportedly more susceptible to COVID-19.(3) (4)Pregnant women may have a higher level of anxiety and may therefore require help more frequently than usual. In our study, we set out to examine—for the first time—how pregnant women's anxiety levels changed as a result of the COVID-19 epidemic.

Based on a survey through short interviews with pregnant women who visited at Sanden Health Center, it was found that there was an anxiety for pregnant women to visit during the COVID-19 pandemic. Therefore, researchers are interested in knowing more about the relationship between the level of anxiety of pregnant women in the third trimester and compliance with ANC visits during the Covid-19 pandemic at Sanden Health Center.

### METHOD

This research is analitical survey with a cross sectional design. The population in this study were all all third trimester pregnant women who performed anc at Sanden Health

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Center in 2021. Sample were selected by purposive sampling with consideration of inclusion and exclusion criteria. The population in this study amounted to 376 pregnant women. The inclusion criteria in this study were pregnant woman who were willing to be respondents and have mobile phone with the WhatsApp feature so that they can be included in the WhatsApp group and can access the questionnaire in the form of a google form. The sample size was calculated using the Slovin formula and the number of samples was 45 respondents. This research was conducted from January to March 2022 at Sanden Health Center, Bantul Regency, Special Region of Yogyakarta.

The variables studied in this study were ANC visit compliance, anxiety level, age of pregnant women, gravida, educational level and employment status. The data used is primary data, which is taken directly from the respondents using a questionnaire with google form. Data analysis used in this research is univariate and bivariate analysis used chi square test. This research has been declared to have passed the ethical test held by the Ethics Commission of Poltekkes Kemenkes Yogyakarta.

#### **RESULTS AND DISCUSSION**

Description of respondent is used to provide an overview of the characteristics of respondents who were sampled in the study. The description in this study was conducted to obtain the percentage and distribution of the frequency.

Variable	Frequency (n)	Percentage (%)	
Age			
Risk (< 20 years or > 35	9	20	
years)			
Unrisk (20-35 years old)	36	80	
Employment status Employed			
	18	40	
Unemployed	27	60	
Educational level			
Low	13	28.9	
High	32	71.1	
Gravida			
Primigravida	19	42.2	
Multigravida	26	57.8	
ANC visit compliance Comply			
	30	66.7	
Uncomply	15	33.3	
Anxiety level			
Mild anxiety	28	62.2	
Moderate anxiety	9	20	
Severe anxiety	8	17.8	

Table 1. Demographic Characteristics of The Pregnant Women.

Distribution of respondent characteristics based on pregnant women's age, pregnant women's employment status, pregnant women's education, gravida, ANC visit compliance and anxiety level (table 1).

Bivariate analysis was carried out to see relationship between the anxiety level of pregnant women in the third trimester and compliance with ANC visits. The calculation results can be seen in the following table:

	Visit Compliance							
Anxiety Level	Uncomply		Comply		Total		Chi- Square	P-value
	n	%	n	%	n	%	-	
Mild anxiety	4	14,3	24	85,7	28	100		
Moderate anxiety	4	44,4	5	55,6	9	100	15,634	0,000
Severe anxiety	7	87,5	1	12,5	8	100		
Total	15	33,3	30	66,7	45	100		

Table 2. The relationship between the anxiety level of pregnant women in the third trimester and compliance with ANC visits during the Covid-19 pandemic in Sanden Health Center in 2021

The anxiety level of pregnant women in the third trimester at Sanden Health Center in 2021 was mostly in the mild category, namely 28 people (62.2%). The category of compliance with ANC visits during the Covid-19 pandemic at Sanden Health Center in 2021 is the number of pregnancy check-ups/ANCs that meet visits, namely 30 people (66.7%). The results of the univariate analysis showed that the majority of pregnant women who performed ANC at Sanden Health Center, Bantul Regency, were of the non-risk age group as many as 36 respondents or 80%. A good reproductive age is at the age of 20-35 years, which is the best period for pregnancy, childbirth, and breastfeeding. After that the mother's risk will increase every year. The magnitude of the risk is largely determined by socioeconomic conditions and the local environment. Maternal mortality and morbidity will be high when giving birth too young and too old, namely under 20 years old and above 35 years old. The period between the ages of 20-35 years is the best year to have children, which means that the possibility of interference with pregnancy and childbirth is very small.

The majority of pregnant women who performed ANC at the Sanden Public Health Center, Bantul Regency, had completed high school education as many as 32 respondents (71.1%). Secondary education is education that prepares students to become members of the community who have the ability to have reciprocal relationships with the socio-cultural and natural environment, and can develop further abilities in the world of work or higher education. Secondary education, which lasts three years after primary education, is held at senior high school (high school) or equivalent education.

The majority of pregnant women who perform ANC at Sanden Health Center, Bantul Regency are not working, as many as 27 respondents (60%). Working mothers are women who work outside the home and receive money or earn income from their work. Furthermore, the needs that arise in women to work are the same as men, namely psychological, security, social and self-actualization needs. Women can achieve self-identity, a certain level of class, a certain social level in society, the possibility to make social contacts, feel happy and free from boredom, do something constructive and creative, can contribute ideas and do self-healing from stressful situations. and routine.

The research design using a cross sectional design aims to determine the relationship between the level of anxiety of pregnant women and compliance with ANC visits at Sanden Health Center. The results of this study indicate that COVID- 19 has an impact on anxiety in pregnant women. The majority of pregnant women who did not fulfill the visit compliance experienced severe anxiety, namely 7 people (87.5%). While the majority of pregnant women who met the compliance visit experienced mild anxiety, namely 24 people (85.7%). This is in line with previous research which stated that there was a relationship between the level of anxiety and knowledge of pregnant women with adherence to antenatal care visits & preparation for delivery during Covid-19 pandemic.<sup>6</sup> This study also supports previous research which states that there is a relationship between anxiety levels pregnant women with antenatal care visits to health care facilities during the Covid-19 pandemic.<sup>7</sup>

From the results of the chi square analysis, it was found that there was a relationship between the level of anxiety of pregnant women in the third trimester and compliance with ANC visits during the Covid-19 pandemic at Sanden Health Center in 2021 (p=0.000). The results of the study showed that the COVID-19 pandemic caused mild anxiety levels in pregnant women at Sanden Health Center. Research conducted during the early phase of the pandemic could be the reason for the increased psychological impact on pregnant women which may have changed, namely research in Indonesia found that 31.4% of pregnant women in Madura during the COVID-19 pandemic experienced severe anxiety due to COVID-19.<sup>8</sup> Especially during this COVID-19 pandemic, pregnant women have to deal with many things related to mental and mental readiness to undergo pregnancy with various health protocols compared to women aged 26 compared to pregnant women in the first and third trimesters.<sup>9</sup> However, the second trimester is often referred to as the period of health radiance, when the mother feels well. The mother has accepted the pregnancy and is starting to use her energy and thoughts constructively.

Based on the educational status of the majority of respondents with the last education in the high category as many as 32 people (71.1%). Lack of knowledge about the COVID-19 pandemic provides an anxiety response to pregnant women. Researchers assume that the respondent's low education causes respondents to lack proper information about COVID-19 so they are prone to experiencing anxiety. A person's level of education has an effect on receiving information and processing it before it becomes bad behavior or good behavior that has an impact on his health status.<sup>10</sup>

The most employment status of respondents is unemployment as many as 27 people (60%). Occupation is an activity carried out by humans, economic status and work can cause stress and will continue to cause anxiety.<sup>11</sup> Families who have jobs and income during the COVID-19 pandemic will be a support system for the mental health of each member. Housewives who have a lot of work at home during the COVID-19 pandemic and their husbands don't work will have an impact on anxiety. Anxiety of pregnant women is not only due to socio- economic level but also the interaction of pregnant women with the wider community who are active in certain organizations, it is assumed that working mothers have higher knowledge and faster access to information than mothers who do not work. <sup>12</sup> Obstetric status of pregnant women includes gravida, parity and abortion. The results showed that the obstetrical status of gravida was 26 people (57.8%), the number of pregnancy check-ups/ANC visits that met was 30 people (66.7%). The majority of pregnant women who did not meet the compliance visit experienced severe anxiety, namely 7 people (87.5%). While the majority of pregnant women who met the compliance visit experienced mild anxiety, namely 24 people (85.7%).

The capacity of pregnant women to access or attend ANC is affected by the COVID-19 epidemic. The most frequently mentioned factors related to health facilities were fear of contracting the virus in health facilities and lack of trust in health facilities, with 33.3% of respondents during the COVID-19 pandemic not completing ANC visits to Q4 because they

were affected by facilities being closed, too full, or not receiving patient. Our sample participants also frequently mentioned social distancing issues and concerns about contracting COVID-19 if they came into the community as barriers to ANC. Strong evidence supports the notion that COVID-19 is the cause of increased rates of stillbirth, miscarriage, maternal illness and death. Our information on the causes of the pandemic's impact on women's capacity to obtain or attend ANC may provide insight.(5) (6)

Feelings of anxiety or fear arise because a multigravida mother feels about past experiences she has experienced such as the pain she suffered during childbirth. Pregnant women also experience anxiety about previous births such as women who have problems with their pregnancy will feel anxious and think about being able to maintain their pregnancy.<sup>13</sup> The experience of giving birth for pregnant women is certainly different, researchers assume that pregnant women who are multigravida or who have had the experience of giving birth for the first time have experience giving birth during the COVID-19 pandemic who do not yet know the description, information and better preparation in facing a safe delivery from the dangers of the COVID-19 pandemic. Regular antenatal visits can reduce the discomfort experienced during pregnancy. However, the COVID-19 pandemic has added to the worry of pregnant women to make antenatal visits. Regular antenatal check-ups are needed to obtain information about pregnancy or comorbidities.<sup>14</sup>

# CONCLUSION

There is a relationship between the level of anxiety of pregnant women in the third trimester and the level of compliance with ANC visits during the COVID-19 pandemic at Sanden Health Center, Bantul Regency.

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