

## THE INFLUENCE OF MATERNAL ANXIETY TOWARDS THE SELECTION OF MATERNITY PLACES DURING COVID- 19

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### ABSTRACT

*Corona Virus Disease (COVID-19) pandemic is currently engulfing almost the entire world, including Indonesia. As of August 12, 2021, there were 3,774,155 positive cases of Covid-19 in Indonesia, 24,709 new cases and 113,664 deaths. The group of maternal is a vulnerable group, where there are 4.9% of pregnant women who are confirmed positive for COVID-19 from 1,483 confirmed cases that have accompanying condition data. Therefore, maternal, perinatal, postpartum and newborns are vulnerable targets for transmission of COVID-19 infection and this condition is feared to increase maternal and perinatal morbidity and mortality. The general objective of this study was to determine the effect of the anxiety level of pregnant women on the choice of place of delivery during the COVID-19 period. This study used a survey method with a cross sectional approach. The study was conducted in Aceh Barat Regency, in March-June 2021. The population in this study were 637 third trimester pregnant women in 2021. The number of samples in this study was 246 samples calculated by the slovin formula and using accidental sampling technique. Data analysis used logistic regression test. The results of the bivariate analysis showed that there was a significant effect between the level of mild anxiety and the choice of place of delivery during the COVID-19 pandemic with a value (OR=5.6, 95% CI=2.04-15.3, p-value=0.001), . While the level of moderate anxiety had no significant effect on the choice of place of delivery during the Covid-19 period (OR=2.1, 95% CI=0.4-12.4, p-value=0.383) The level of severe anxiety in pregnant women was also not significant. effect on the choice of place of delivery during the Covid-19 period (OR=1.1, 95% CI=0, p-value=0.989). Expected to the government can improve education programs and supervision of the prevention and control of the Covid 19 pandemic, especially groups of pregnant women in order to minimize the possibility of excessive anxiety in pregnant women during the Covid 19 pandemic.*

**Keywords:** *The level of anxiety, The selection of places besalin, Pandemic Covid-19*

### INTRODUCTION

Corona Virus Disease (COVID-19) or also known as SARS-CoV-2 is an infectious disease caused by a new type of coronavirus (WHO, 2020). WHO data as of August 4, 2020, there were 18 million confirmed cases with 219 thousand new cases and 691,000 deaths in the world (WHO, 2020).

The development of COVID-19 in Indonesia as of August 4, 2020, there were 115,000 positive cases, 1.9 thousand new cases and 5.3 thousand deaths. For the group of pregnant women, there were 4.9% of pregnant women who were confirmed positive for COVID-19 from 1,483 confirmed cases of pregnant women who had accompanying condition data (Ministry of Health, 2020).

Accumulative cases of Covid-19 cases in Aceh have reached 31,389 people as of August 26, 2021. There are 6,526 COVID-19 patients being treated. Covid-19 survivors, (who have recovered) as many as 23,494 people. While the cumulative death cases have reached 1,369 people. Meanwhile, based on data from the West Aceh Covid 19 Task Force as of August 25, 2021, there were 833 confirmed positive cases, 385 people underwent treatment, 406 people recovered and 42 people died.

Pregnancy conditions that cause a decrease in partial immunity due to physiological changes so that pregnant women are more susceptible to viral infections (Pradana & Casman, 2020). Data shows that pregnant women, childbirth, postpartum and newborns are also vulnerable targets for COVID-19 infection and this condition is feared to increase maternal and newborn morbidity and mortality (Ministry of Health, 2020).

Anxiety of pregnant women increases during the COVID-19 period because they think about the health of their older relatives, worry about their children and the baby to be born (Gillian A. Corbett et al., 2020). Anxiety in pregnant women during the COVID-19 pandemic in Arabia was characterized by worries about infection of family members (71.5%) and fetal health (70%), worries about having a pregnancy check-up (68.7%), infection (59.2%) ) and worried about the delivery process (55.4%) (Taubman-Ben-Ari et al. (2020). Pregnant women during Covid showed an increase in symptoms of depression and anxiety (Berthelot et al., 2020). Anxiety of pregnant women in COVID- 19 in Wuhan China influenced the choice of delivery decisions at the hospital where as many as 50.25% delayed delivery in the hospital due to fears of being infected with COVID-19 and 51.23% delayed childbirth in the hospital due to concerns that the baby was infected with COVID-19 (Liu et al. al., 2020).

Based on data on the coverage of health services for pregnant women, the number of K1 and K4 in Indonesia in 2019 was 82.9% and 88.4%, respectively, deliveries assisted by health personnel were 83.2%, deliveries in health facilities were 82.1 % (Ministry of Health, 2020). Antenatal Care service data in January - April 2020 decreased from 76 thousand to 59 thousand in K1, and K4 also decreased from 57 thousand to 50 thousand visits (Nurjasmi, 2020).

Based on data from the West Aceh District Health Office, until April 2020 the number of pregnant women who had a MCH book were 1,273 (26.56%) lower than the April 2019 period, which was 1,286 (27.03%), the number of K1 visits was 1,263 (26.35). %) lower than the period in April 2019 which was 1,267 (26.63%), the number of K4 visits was 1,010 (21.07%) lower than the period in April 2019 which was 1,019 (21.42%), births to health workers were 1,025 ( 22.10%), births from health workers at health facilities were 1,014 (21.86%) and deliveries for non-health facilities were 11, higher than the April 2019 period, which was 0. (Dinkes, 2020).

In general, a woman who wants to give birth needs a safe and comfortable atmosphere and support from those closest to her. This is in line with Acehese culture, that every mother who is about to give birth needs assistance from several people who are trusted by the mother and family. However, in connection with the current pandemic, there have

been changes to the rules in various health care centers, including restrictions on assistance for mothers who are about to give birth.

The results of interviews conducted by researchers with several midwives in West Aceh Regency, the number of pregnant women who gave birth at the Independent Practice Midwife (PMB) increased during this COVID-19 pandemic. Pregnant women have anxiety about giving birth in advanced health facilities because they are worried about the risk of transmitting Covid-19 infection due to interactions with officers and other patients in large numbers. Concerns in choosing a place of delivery other than the practice of independent midwives in mothers who have complications in pregnancy and childbirth, can increase the risk of morbidity and mortality in maternity. Based on this background, the researcher aims to conduct research on the Effect of Pregnant Women's Anxiety on the Choice of Place of Delivery during the COVID-19 Period.

## METHOD

This study used a survey method with a cross sectional approach. The study was conducted in Aceh Barat Regency, in March-June 2021. The population in this study were 637 third trimester pregnant women in 2021. The number of samples in this study was 246 samples calculated by the slovin formula and using accidental sampling technique. Data analysis used logistic regression test.

## RESULTS

### Univariate Analysis

**Table 1.** Frequency Distribution of Characteristics, Anxiety Levels, Choice of Place of Delivery during the Covid-19 Period

Variabel	n (f%)
<b>Choice of Place of Birth</b>	
• CEmONC	30 (12,20)
• BEmONC	94 (43,52)
• PMB	122 (56,48)
<b>Anxiety</b>	
• No Anxiety	206 (83,74)
• Light	28 (11,38)
• Currently	6 (2,44)
• Heavy	6 (2,44)

Source; Primary data for 2021

Based on Table 1, it shows that the frequency distribution of pregnant women who chose the Independent Practice Midwife (PMB) delivery place was 122 (56.48%) higher

during the Covid-19 period compared to pregnant women who chose the BEmONC 94 (43.52%) and 30 (12. 20%).

The frequency distribution of pregnant women who did not have anxiety levels during the Covid-19 period was 206 (83.74%) higher than pregnant women with mild anxiety levels 28 (11.38%), and moderate anxiety levels 6 (2.44%) and severe anxiety level 6 (2.44%).

**Bivariate Analysis**

**Table 2.** The Influence of Pregnant Women's Anxiety Levels on the Choice of Place of Delivery during the COVID-19 Period

Anxiety	Choice of Place of Birth						Total	OR	95% CI	P-Value	
	CEmONC		BEmONC		PMB						
	f	%	f	f	%	F					
No Anxiety	27	13,11	9	43,6	89	43,20	20	10			
Light	2	7,14	3	10,7	23	82,14	28	10	5,6	2,04-15,3	0,001
Currently	1	16,67	1	16,6	4	66,67	6	10	2,1	0,4-12,4	0,383
Heavy	0	0	0	0	6	100	6	10	1,1	0	0,989
<b>Total</b>	<b>30</b>	<b>12,20</b>	<b>9</b>	<b>38,2</b>	<b>122</b>	<b>49,59</b>	<b>24</b>	<b>10</b>			
			<b>4</b>	<b>1</b>			<b>6</b>	<b>0</b>			

Source; Primary data for 2021

The results of the statistical test showed that there was a significant effect between the level of mild anxiety in pregnant women and the choice of place of delivery during the Covid-19 period with a value (OR = 5.6, 95% CI = 2.04-15.3, p-value = 0.001), meaning that pregnant women with mild anxiety levels were 5.6 times more likely to choose a Independent Practice Midwife (PMB) delivery place (rather than CEmONC and BEmONC) during the Covid-19 period compared to pregnant women who had no anxiety. Meanwhile, the moderate level of anxiety in pregnant women had no significant effect on the choice of place of delivery during the Covid-19 period (OR=2.1, 95% CI=0.4-12.4, p-value=0.383). moderate anxiety is 2.1 times more likely to choose the place of delivery in PMB over CEmONC and BEmONC during the Covid-19 period compared to pregnant women who do not have anxiety. The level of severe anxiety in pregnant women also has no significant effect

regarding the choice of place of delivery during the Covid-19 period (OR = 1.1, 95% CI = 0, p-value = 0.989) where pregnant women with severe anxiety levels were only 1.1

times more likely to choose a place of delivery in PMB rather than CEmONC and BEmONC) compared to pregnant women who had no anxiety.

## DISCUSSION

The results of this study indicate that there is a significant effect between the level of mild anxiety in pregnant women and the choice of place of delivery during the Covid-19 period with a value (OR = 5.6, 95% CI = 2.04-15.3, p-value = 0.001). This is in line with the results of research conducted by Yuliani & Aini in 2020 which found pregnant women and postpartum mothers in Baturraden District, during the COVID-19 pandemic, the majority experienced mild-moderate anxiety. In another study, pregnant women who experienced anxiety during the COVID-19 pandemic reached 63-68%. The data illustrates that 40% of Obstetrics and Gynecology Doctors have been contacted by more than ten pregnant women, due to anxiety related to COVID-19 (Yuliani & Aini, 2020). These results are also in line with the research of Preis et al. (2021) in the United States, that there is an influence between pregnant women and the choice of place of delivery during Covid-19 OR = 17.74 and p-value = 0.001, but pregnant women in the United States prefer home births 24.4% than births in health facilities 15.4%. The policies set by the American government for pregnant women who want to give birth are divided into 2 types of community births, namely births at home and births at birth service centers (medical) so that people have the right to choose to determine the place of delivery according to their needs (Preis et al., 2021). ). This is of course very contrary to the policy of the Indonesian government, where maternity mothers must continue to give birth in health care facilities even though in the midst of the Covid-19 pandemic.

Anxiety in pregnant women during the COVID-19 pandemic needs to be a concern. Based on the results of the study, it showed that pregnant women who did not experience anxiety during the Covid-19 period were 206 (83.74%) higher than pregnant women with a mild anxiety level of 28 (11.38%), and a moderate level of anxiety 6 (2.44%). ) and severe anxiety level 6 (2.44%). This is different from the results of a study which reported that during the COVID-19 pandemic pregnant women who experienced severe anxiety reached 57.5%, and there was a relationship between maternal anxiety and the readiness of pregnant women in the third trimester to face childbirth during the COVID-19 pandemic (Angesti , 2020). Some of the anxiety experienced by primigravida mothers before their first delivery during the pandemic started from worrying about the baby being born prematurely, worrying about the development of the fetus in the womb, worrying about the death of the baby, worrying about the birth of the baby with defects, worrying about possible complications during delivery, and worrying about pain. at delivery (Asmariyah et al., 2021). This indicates that the anxiety of pregnant women, including during the COVID-19 pandemic, needs to be handled appropriately and safely so as not to interfere with the mother's physical and mental readiness in facing childbirth so that delivery can run smoothly and safely.

Researchers assume that anxiety in pregnant women can have an impact on the health of the mother and fetus. With the COVID-19 pandemic, it can increase the incidence or level

of anxiety in pregnant women, so that these problems require further treatment, to reduce the negative impact on the welfare of the mother and fetus. So that researchers can recommend that in every antenatal visit during the pandemic, both face-to-face and online, psychological assessments of pregnant women can be carried out more optimally, so that if they are detected to suffer from psychological problems such as anxiety, further management can immediately be given.

## CONCLUSION

There is a significant effect between the level of mild anxiety in pregnant women and the choice of place of delivery at Independent Practice Midwife (PMB) during the Covid-19 period with a value (OR = 5.6, 95% CI = 2.04-15.3, p = 0.001). Meanwhile, the moderate level of anxiety in pregnant women had no effect on the choice of place of delivery during the Covid-19 period (OR=2.1, 95% CI=0.4-12.4, p=0.383).

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