

Anxiety of Pregnant Women and Determination of Maternity Health Care Facility during the COVID-19 Pandemic

Hilda Sulistia Alam ^{1*}, Sutrisna Altahira ¹, Risnawati¹

¹ Polytechnic of Baubau, Baubau, Southeast Sulawesi, Indonesia

ARTICLE INFORMATION

Received: 13, December, 2021

Revised: 22, October, 2022

Accepted: 23, October, 2022

KEYWORDS

Pregnant; Anxiety; COVID-19; Maternity Health Care

Kehamilan; Kecemasan; COVID-19; Tempat Bersalin

CORRESPONDING AUTHOR

Hilda Sulistia Alam

Jl. Sijawangkati, Kota Baubau Sulawesi Tenggara

hildasulistialam@gmail.com

+62852-2272-7266

DOI

<https://doi.org/10.36456/embrio.v14i2.4688>

ABSTRACT

There are physical and psychological changes during pregnancy experienced by pregnant women. Anxiety often increases before delivery, especially in the third trimester. During pregnancy, COVID-19 can contribute to a woman's mental health issues. Anxiety is often experienced regarding previous birth and delivery, fear of becoming infected with COVID-19 and transmitting it to others, and information obtained from social media regarding the susceptibility of pregnant women to COVID-19. Anxiety will impact decision making, especially concerning the selection of maternity health care facilities during the COVID-19 pandemic. This was a quantitative analytical study with cross-sectional design through survey methodology that was conducted July-November 2021 in the work area of 3 Community Health Centers (Betoambari, Katobengke and Kadolomoko) at Baubau City, Southeast Sulawesi. 72 pregnant women in the third trimester who were recorded in the MCH book were selected as the study samples through probability sampling technique. This study aims to determine the relationship between anxiety of pregnant women and the type of maternity health care facility during the COVID-19 pandemic. Data were collected using HARS (Hamilton Anxiety Rating Scale) questionnaire. The results of data analysis using the Chi-Square test obtained a $p=0.001 < \alpha=0.05$. There was a relationship between anxiety of pregnant women and the type of health care facility during the COVID-19 pandemic. Women with severe anxiety chose Private Practice Midwife (16.6%), women with moderate anxiety chose CHC (15.2%) and women with mild anxiety chose hospital (12.5%) as a maternity health care facility during the Covid-19 pandemic.

Selama masa kehamilan terjadi perubahan fisik maupun psikologi pada ibu hamil. Kecemasan meningkat menjelang persalinan terutama pada trimester tiga. Selama kehamilan, COVID-19 dapat berkontribusi pada masalah kesehatan mental wanita. Kecemasan yang dirasakan, khususnya mengenai pengalaman ibu-ibu sebelumnya yang pernah melahirkan, ketakutan tertular COVID-19 dan menularkannya kepada orang lain, serta informasi yang diperoleh dari media sosial mengenai kerentanan ibu hamil terhadap COVID-19. Rasa cemas akan memengaruhi pengambilan keputusan khususnya dalam menentukan jenis fasilitas pelayanan kesehatan bersalin di masa pandemi COVID-19. Penelitian ini dilakukan untuk mempelajari bagaimana ketakutan pandemi COVID-19 memengaruhi keputusan ibu hamil tentang ke mana harus mencari perawatan bersalin. Penelitian ini bersifat kuantitatif, menggunakan desain cross-sectional dan metodologi survei analitik dilakukan pada Juli–November 2021 di wilayah kerja Puskesmas (Betoambari, Katobengke dan Kadolomoko) Kota Baubau Sulawesi Tenggara. Teknik pengambilan sampel dengan probability sampling melibatkan 72 ibu hamil trimester tiga yang tercatat di buku Laporan KIA. Teknik pengumpulan data menggunakan kuesioner HARS (Hamilton Anxiety Rating Scale). Hasil analisis data menggunakan uji Chi-Square menunjukkan $p=0,001 < \alpha=0,05$ adanya hubungan kecemasan dalam menentukan jenis fasilitas pelayanan kesehatan di masa pandemi COVID-19. Kecemasan berat memilih Praktik

Introduction

Pregnant women often experience physical and mental changes. In general, the physical changes during pregnancy characterized by amenorrhea, enlarged breasts and abdomen, weight gain, relaxation of the digestive muscles, changes in sensitivity and changes in the shape of the uterus and organ system function (Pieter H.Z & Lubis N. L, 2010). Complaints of feeling nauseous, abdominal pain, dizziness, and fatigue as well as face that looks so tense are found in the first trimester. Tari & Romania 2011 in (Rustikayanti, R. N., 2016) regarding psychological changes in the first trimester of pregnancy states that about 80% of pregnant women experience negative emotions such as disappointment, rejection, anxiety, and sadness. A woman's mental state may appear stable and show signs of adaptation during the second trimester, but actually anxiety often emerges during the third trimester as the baby grows (Janiwarty & Pieter, 2012). A woman's physical and mental health continues to develop along with increasing gestational age until delivery. The time of delivery that is getting closer causes anxiety, especially for women with the first delivery experience (Marmi, 2011). Pregnancy is a source of anxiety, especially in primigravida because this is a kind of new condition that is experienced for the first time. These changes are normal conditions as the sign of the body's adaptive response during pregnancy (Mandriwati & Ayu, 2016).

Anxiety is a feeling of discomfort or fear that a person feels in a tense situation. As the due date draws near, many expectant mothers experience an increase in their anxiety levels. About 28.7 percent of the Indonesian population suffers from anxiety. Women in the third trimester of pregnancy in the island of Java have an anxiety level of 52.3% when they are asked about birth and delivery (Siallagan & Lestari, 2018). According to Rukiyah (2013), in the third trimester of pregnancy, when the time for delivery is getting closer, pregnant women experience an increasing and intense level of anxiety. Furthermore, Hidayat (2014) states that if pregnant women do not get motivation from their environment, especially from their husbands and closest people, anxiety and fear tend to be one of the emotions most often experienced (Siallagan & Lestari, 2018).

According to study conducted by Einsenberg (1996) regarding the anxiety of pregnant women, almost all (94%) respondents worried about having a healthy baby, almost all (93%) worried about going through labor without incident, and almost all (91%) worried about their appearance rather than their health. According to these findings, moderate anxiety affected 69.6% of pregnant women and mild anxiety affected 8.7% of pregnant women. Discussing maternal health during pregnancy and the potential complications that can arise during delivery is a major part of the family system's efforts to prepare for and prevent adverse outcomes. During the time before delivery, most mothers struggle to make concrete decisions and doubt their own judgment about what they need (Hidayat, 2013).

Psychological problems, such as whether or not the fetus is healthy in the womb, have been exacerbated by the outbreak of the COVID-19 virus. Anxiety is fueled by memories of previous births,

care to be received and the spread of COVID-19, and data obtained from the media about safety measures to be taken during the pandemic. Most expectant mothers are reported to feel anxious about giving birth during the current COVID-19 pandemic. This is mainly due to the widespread coverage in the media and social media of the increased risk of infection for pregnant women and their unborn babies, as well as other factors such as previous deliveries, previous exposure to the virus, and the likelihood of contracting it (Pane et al., 2021). According to Dunkel in Purwaningsih (2020) depression and anxiety are common in pregnant women, and lack of social support can be a contributing factor. The less anxiety and depression a person experience, the more effective the social support will be. During pregnancy, as people take on new responsibilities and roles in society, social support is critical to their health and happiness.

At this stage, the significance of social support lies in the help or support that people receive from certain groups and relationships (husband, parents, in-laws, friends, neighbors) that are able to make the recipient feel loved and valued, or in other words to get support from the community. Women need their social networks to gather around them as they approach their due date. In this case, the husband can provide support by encouraging and paying more attention to his pregnant wife, which will bring good to their relationship as well as decision making. Anxiety will affect a person's decision making (Maharani, TI., Fakhurrozi, 2014). Shared responsibility of society and government is to ensure that all mothers have ready access to prenatal care, skilled medical assistance during labor, postpartum care for mother and child, specific attention and referral in case of complications, care for new children, and methods of contraception and family planning (Ministry of Health of the Republic of Indonesia, 2021).

Based on the initial data survey conducted at 3 CHCs in Baubau City with the highest number of delivery coverage in July 2021 which involved Private Practice Midwife (PMB) in each work area, it was found that of the women giving birth, 24-26% chose CHCs, while 73-75% chose PMB which were inversely proportional to the number of visits by women in the third trimester of pregnancy who visited each CHCs for Antenatal Care. The results of interviews with 3 pregnant women in three CHCs showed that they were anxious to hear the news on social media regarding Baubau City as COVID-19 cluster with an increase in the number of daily cases at the Regional Public Service Agency (BLUD) of the Baubau City Hospital. Therefore, together with nuclear family members, they decided to choose the type of health service facility with minimal risk of exposure to COVID-19 cases, namely PMB. They expected to pass the birth process safely and comfortably. The current study aims to determine the relationship between anxiety of pregnant women and the type of maternity health care facility during the COVID-19 pandemic.

Methods

This was a quantitative analytical study with cross-sectional design through survey methodology that was conducted July-November 2021 in the work area of 3 Community Health Centers (Betoambari, Katobengke and Kadolomoko) at Baubau City, Southeast Sulawesi. 72 pregnant women in the third trimester who were recorded in the MCH book were selected as the study samples through probability

sampling technique. Data were collected using HARS (Hamilton Anxiety Rating Scale) questionnaire. Before delivered to respondents, validation and reliability tests for the questionnaire were conducted. The Chi-Square significance test was conducted on the data by using SPSS with a 95% significance level to analyze the data.

Results

Table 1. Characteristics of Respondents of Pregnant Women in the Third Trimester in The Work Area of 3 CHCs (Betoambari, Katobengke and Kadolomoko)

Characteristics of Respondents	F	(%)
Age (Years)		
20–35	57	79.2
>35	15	20.8
Level of education		
Primary School	1	1.4
Junior High School	13	18.1
Senior High School	35	48.6
College	23	31.9
Work		
Housewife	51	70.8
Working Mother	21	29.2
n	72	100

Table 2. Relationship between Age, Level of Education and Employment with the Level of Anxiety

	Level of Anxiety						F		P
	Mild		Moderate		Severe		F	%	
	F	%	F	%	F	%			
Age (Years)									
20–35	27	37.5	27	37.5	3	4.1	57	79.2	0.017
> 35	0	0	2	6.9	13	81.3	15	20.8	
Level of Education									
Junior High School		5.5	5	6.9	5	6.9	14	19.5	0.011
Senior High School		18	3	4.1	19	26.3	35	48.6	
Higher Education		13.8	5	6.9	8	11.1	23	31.9	
Employment									
Unemployed (Housewife)	27	37.5	10	13.9	14	19.4	51	70.8	0.029
Employed	8	11.1	10	13.9	3	4.1	21	29.2	

Based on the Chi-Square test, it was obtained a p value of $0.017 < \alpha 0.05$ (at a significance level of 5%). Women's anxiety during pregnancy correlated with their age during the COVID-19 pandemic. The Chi-Square test resulted in a level of significance of $p=0.011 < \alpha 0.05$. Anxiety of pregnant women during the COVID-19 pandemic was positively correlated with their educational attainment. According to the finding derived from Chi Square statistical test, the p value was lower than 0.05. During the COVID-19 pandemic, there was a correlation between the amount of work pregnant women have to do and their overall anxiety level.

Table 3. Relationship between Anxiety of Pregnant Women and the Type of Maternity Health Care Facility during the COVID-19 Pandemic

Level of Anxiety	Maternity Health Care						n		p
	Private Practice Midwife		Community Health Center		Hospital		F	%	
	F	%	F	%	F	%			
Mild	8	11.1	5	6.9	9	12.5	22	30.5	0.001
Moderate	10	13.8	11	15.2	1	1.3	22	30.5	
Severe	12	16.6	7	9.7	9	12.5	28	38.2	

Table 3 presents a p-value $0.001 < \alpha 0.05$ which was derived from the chi-square test. It can be concluded that H_0 was rejected and H_1 was accepted, so that there was a relationship between the anxiety of pregnant women and determination of maternity health care facility during the COVID-19 pandemic in Baubau City.

Discussion

Result In this study show that Women's anxiety during pregnancy correlated with their age during the COVID-19 pandemic. According to the finding of a study conducted by Etri. et al. (2020), there was a relationship between age and anxiety. Women aged >35 years are included a high-risk group. Various risks of pregnancy may occur at this age range, namely bleeding, preeclampsia/eclampsia, infection and retained placenta. At this age range, the ability of the reproductive organs decreases which may increase the level of anxiety. Previous experience of labor and delivery also has a significant effect coupled with the age of >35 years.

This study shown was Anxiety of pregnant women during the COVID-19 pandemic was positively correlated with their educational attainment. Someone who is highly educated understands in advance a response that occurs compared to someone with low education (Rozikhan, 2021). Severe anxiety tends to be found in people with low education, who do not have the background knowledge to process an event in a way that prevents them from fearful perceptions and responses (Aslinda Hafid, 2021). Education level has a role in responding to the information obtained as the basis for attitudes in making decisions.

Working women tend to experience anxiety due to workload and household matters while those who do not work tend to have a lighter thought load (Nekada, 2020). Most working adults report stress, and many working women experience anxiety due to their jobs (Hendriani et al., 2021).

Anxiety about childbirth is usually associated with health status, gravida, and age. A previous study found that 87% of pregnant women experienced mild anxiety and 13% experienced moderate anxiety (Siallagan & Lestari, 2018).

Anxiety of pregnant women can increase if they are concerned about their own physical changes, the health of unborn baby, and their own mental readiness for childbirth. In the third trimester, anxiety levels increase as labor approaches (Rukiyah, A, 2013). Pregnant women often experience anxiety and fear before labor if they do not get motivation from their environment, especially their husbands (Hidayat, 2013). Prior to delivery, one of factors that trigger anxiety is social support. Lower level of depression and anxiety was found to be related to higher level of social support. Furthermore, Schetter (2011) emphasizes the importance of social support in determining the health of mothers and babies during pregnancy. A woman will have a new role after childbirth. Social support has a direct effect on mental health by reinforcing healthy practices, increasing optimistic emotions, and facilitating more effective coping mechanisms. Physiological responses to stress are indirectly moderated by social support. Positive social relationships will protect the developing fetus from the negative effects of stress on the mother. Social support also has an impact on decision making regarding the type of health care

facility that the mother chooses for delivery. Decision is not absolutely made by the pregnant woman but is made together with the nuclear family. Pregnant women with severe anxiety (16.6%) chose Private Practice Midwife (PMB), pregnant women with moderate anxiety (15.2%) chose CHC, and pregnant women with mild anxiety (12.5%) chose Hospital as the maternity health service facility during the COVID-19 pandemic. 19. Determination of the type of health service facility was taken by considering aspects of minimal risk of being exposed to and exposing COVID-19. Pregnant women perceived that PMB was a safe place for delivery compared to CHC and Hospital as the centers of health services.

Pregnant woman's main concern is the health of her unborn baby. Although there is a lack evidence for vertical transmission from mother to fetus, the possibility cannot be ruled out. Some new mothers worry about contracting an infection or experiencing complications during childbirth. Pregnant women also need more frequent medical check-ups, which is difficult to perform during the pandemic. Pregnant women may also be concerned about their health if they have difficulty getting the care from a trained medical professional they need. Pregnant women who are exposed may also feel uncomfortable in medical facilities due to the COVID-19 pandemic (Kajdy et al., 2020).

Conclusion

There was a relationship between anxiety of pregnant women and the type of maternity health care facility during the COVID-19 pandemic.

References

- Aslinda Hafid, H. H. (2021). Hubungan Kejadian Pandemi Covid 19 Dengan Kecemasan Ibu Hamil Trimester Tiga. *Keperawatan Muhammadiyah*, 6(2), 151–155.
- Etri., Y., Irman, V., & Harmawati. (2020). Optimalisasi Kesehatan Ibu Hamil. *Abdimas Sainitika*, 1(1), 1–8.
- Hendriani, D., Widyastuti, H., Putri, R., & Puspitaningsih, R. (2021). Peran Suami Dalam Gangguan Kecemasan Dan Stress Pada Ibu Hamil Selama Pandemi Covid-19. *Mahakam Midwifery Journal*, 6(1), 28–36.
- Hidayat, S. (2013). Kecemasan Ibu Hamil dalam menghadapi Proses Persalinan. *Kesehatan Wiraraja Medika*, 13(2), 67–72.
- Janiwarty, & Pieter. (2012). *Pendidikan Psikologi Untuk Bidan*. Rapha Publishing.
- Kajdy, A., Feduniw, S., Ajdacka, U., Modzelewski, J., Baranowska, B., Sys, D., Pokropek, A., Pawlicka, P., Kaźmierczak, M., Rabijewski, M., Jasiak, H., Lewandowska, R., Borowski, D., Kwiatkowski, S., & Poon, L. C. (2020). Risk factors for anxiety and depression among pregnant women during the COVID-19 pandemic: A web-based cross-sectional survey. *Medicine*, 99(30), e21279. <https://doi.org/10.1097/MD.00000000000021279>
- Maharani, TI., Fakhurrozi, M. (2014). Hubungan Dukungan Sosial dan Kecemasan dalam menghadapi Persalinan pada Ibu Hamil Trimester Ketiga. *Ilmiah Psikologi*, 2(7), 61–67.
- Mandriwati, & Ayu, G. . J. E. 2016. (2016). *Asuhan kebidanan kehamilan berbasis kompetensi edisi 3* (3rd ed.). EGC.
- Marmi. (2011). *Asuhan Kebidanan Pada Masa Antenatal*. Pustaka Belajar.
- Pane, J. P., Saragih, H., Sinaga, A., & Manullang, A. (2021). Jurnal Ilmu Keperawatan Jiwa. *Jurnal Ilmu Keperawatan Jiwa*, 4(2016), 461–468. <https://journal.ppnijateng.org/index.php/jikj>
- Pieter H.Z & Lubis N. L. (2010). *Pengantar Psikologi Untuk Kebidanan*. Rapha Publishing.

- Purwaningsih, H. (2020). *Analisis Masalah Psikologis pada Ibu Hamil Selama Masa Pandemi Covid-19. Literatur review 9–15.*
- Rukiyah, A, Y. (2013). *Asuhan Kebidanan Kehamilan.* Trans Info Media.
- Rustikayanti, R. N., et all. (2016). Korelasi Perubahan Psikologis Ibu Hamil dengan Tingkat Kepuasan Seksual Suami. *Midwife Journal*, 2(1), 62–71.
- Schetter, C. D. (2011). Psychological science on pregnancy: Stress processes, biopsychosocial models, and emerging research issues. *Annual Review of Psychology*, 62(November 2010), 531–558. <https://doi.org/10.1146/annurev.psych.031809.130727>
- Siallagan, D., & Lestari, D. (2018). Tingkat kecemasan menghadapi persalinan berdasarkan status kesehatan, graviditas dan usia di wilayah kerja puskesmas jombang. *Journal of Midwifery (IJM)*, 1(September), 104–110. <http://jurnal.unw.ac.id/index.php/ijm>