

## Anxiety of Pregnant Women Facing Childbirth In Busungbiu District, Buleleng

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### ARTICLE INFO

**Keywords:**  
*Pregnancy anxiety,  
COVID-19 pandemic,  
Maternal stress,  
Depression during  
pregnancy,  
Anxiety levels*

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### ABSTRACT

Numerous studies have consistently demonstrated the association between stress, depression, and heightened anxiety during pregnancy, which can lead to adverse outcomes such as low birth weight (LBW), preterm birth, and developmental issues in infants. Recent data from the Buleleng District Health Office in December 2021 revealed that approximately 3.1% of infants in the region had low birth weights. Notably, the prevalence of LBW in the catchment area of the Busungbiu I Public Health Center in Buleleng exceeds the district average of 5.6%. Against this backdrop, the present study conducted at the Busungbiu I Public Health Center aims to explore the concerns of pregnant women regarding childbirth amidst the ongoing COVID-19 epidemic. Employing a descriptive-quantitative research design, the study focused on pregnant women who had attended prenatal check-ups at the Busungbiu I Public Health Center within the previous month. The sample comprised 80 respondents selected through probability random sampling. Among the respondents, the highest proportion, accounting for 35%, reported experiencing moderate levels of anxiety. Furthermore, analysis based on the respondents' age groups revealed that the youngest participants exhibited the highest levels of moderate anxiety. Additionally, respondents who had completed elementary school or an equivalent level of education, as well as those with junior high school education or its equivalent, comprised the groups with the highest prevalence of moderate anxiety. Based on the findings, it is recommended to implement targeted initiatives aimed at enhancing pregnant women's understanding of the significance of pregnancy education. Furthermore, it is encouraged to intensify efforts in providing comprehensive support to pregnant mothers, ensuring they are equipped with the necessary knowledge and resources to navigate the challenges associated with pregnancy and childbirth effectively.

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### 1. INTRODUCTION

Anxiety during pregnancy is a distinct condition that affects pregnant women, characterized by heightened concerns and stress related to the physical, psychological, and emotional changes they experience. It is well-established that pregnancy brings about significant transformations and uncertainties, and anxiety can exacerbate these challenges. Women may fear changes in their bodies, worry about the well-being of their developing fetus, and experience apprehension regarding the process of childbirth [1]. Pregnancy-related anxiety can have negative consequences for both the mother and the unborn child, extending from pregnancy to childbirth. For instance, heightened anxiety levels may contribute to restricted fetal growth and impaired development, as well as weakened uterine muscle contractions during labor, potentially leading to adverse outcomes [2]. Research suggests that excessive anxiety during pregnancy is also associated with increased risk of conditions such as low birth weight (BBLR), preterm birth, and compromised fetal growth [3][4][5].

Additionally, pregnant women are particularly vulnerable to infections, including Covid-19, due to physiological changes that impact their immune system. The ongoing Covid-19 pandemic has

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introduced additional layers of anxiety for pregnant women, as they face heightened concerns about infection transmission and the potential implications for their health and that of their unborn child[6].

Given the importance of understanding and addressing anxiety among pregnant women, it is essential to investigate this issue in specific regions. For instance, according to data from the Health Department of Buleleng district in December 2021, the percentage of babies with BBLR was 3.1% district-wide. However, within the work area of the Busungbiu I Health Center in Buleleng, this percentage exceeded the district average, reaching 5.6% [7]. These statistics underscore the need to conduct focused research on anxiety levels among pregnant women in this specific region.

Despite the significance of this topic, there is a dearth of research on anxiety levels of pregnant women during childbirth amidst the Covid-19 pandemic specifically at the Busungbiu I Health Center in Buleleng. Thus, there is a critical gap in knowledge that needs to be addressed. This study aims to investigate and understand the levels of anxiety among pregnant women facing childbirth during the Covid-19 pandemic at the Busungbiu I Health Center in Buleleng, with the ultimate goal of developing targeted interventions to alleviate anxiety levels and improve maternal and fetal well-being. By filling this research gap, this study will contribute to the existing literature and provide valuable insights for healthcare providers, policymakers, and researchers in the field.

## 2. METHOD

This study adopts a quantitative and descriptive research design. The study population consists of 375 pregnant women attending the Busungbiu I Health Center in Buleleng between April and June 2022. The sample size for this research will be determined using random probability sampling, resulting in a final sample of 80 pregnant women.

Inclusion criteria for participants are as follows: a) Primipara (pregnant for the first time) women with a gestational age of at least 27 weeks, attending the Busungbiu I Health Center in Buleleng. b) Participants who have provided informed consent and are willing to be interviewed.

Exclusion criteria for participants are as follows: a) Pregnant women who are unwilling to participate in the study. b) Pregnant women in a sick state. c) Pregnant women with a history of health disorders and chronic diseases before and during pregnancy.

To assess the level of anxiety among the participants, the study will utilize the HRS-A questionnaire, consisting of 14 questions that encompass various clusters of anxiety symptoms. The questionnaire has been validated for use in assessing anxiety levels during pregnancy.

Data collection will be conducted through face-to-face interviews with the participants. The interviews will be carried out by trained research assistants, who will administer the questionnaire and record the responses provided by the participants. The interviews will take place in a private and comfortable setting to ensure confidentiality and encourage honest responses.

The collected data will be entered into a secure database for analysis. Descriptive statistical methods, such as frequencies and percentages, will be used to summarize the data and provide an overview of anxiety levels among the participants. The findings will be presented in tables, graphs, and narrative form, allowing for a comprehensive understanding of anxiety during pregnancy amidst the Covid-19 pandemic.

## 3. RESULTS AND DISCUSSION

The primary objective of this study was to identify the anxiety levels of pregnant women facing childbirth during the Covid-19 pandemic at the Busungbiu I Health Center in Buleleng. The data collected from 80 pregnant women in their third trimester who met the inclusion and exclusion criteria were processed using Microsoft Excel. The results of the data processing are presented in Table 1 below:

### A. Distribution of Respondents Based on the Level of Anxiety of Third Trimester Pregnant Women at the Busungbiu I Buleleng Health Center

Table 1 Distribution of Respondents Based on the Level of Anxiety of Third Trimester Pregnant Women at the Busungbiu I Health Center in Buleleng

Anxiety Level	n (%)
No Anxiety	10 (12,5%)
Mild Anxiety	25 (31,25%)
Moderate Anxiety	28 (35%)
Severe Anxiety	17 (21,25%)
<b>Total</b>	<b>80 (100)</b>

Table 1 presents the distribution of respondents based on the level of anxiety among third-trimester pregnant women at the Busungbiu I Health Center in Buleleng. The results showed that the majority of respondents reported experiencing anxiety, with the highest number falling under the moderate anxiety category (35%). Additionally, 31.25% of respondents reported mild anxiety, 21.25% reported severe anxiety, and 12.5% reported no anxiety. These findings are consistent with a study by [8], which also identified mild to moderate anxiety levels among respondents from the Tersono Health Center in Batang Regency, scoring within the range of 40-60 on the anxiety scale.

Similar results were observed in Pekanbaru in 2021, where 20 respondents (60.6%) fell into the mild to moderate anxiety category, while 11 respondents (33.3%) experienced severe anxiety towards the end of pregnancy. These findings suggest that many pregnant women experience varying levels of anxiety during the Covid-19 pandemic. Anxiety can be influenced by factors such as the risk of contracting Covid-19, the conditions of giving birth, the information and support received from health workers, husbands, and families during pregnancy and after childbirth, as well as economic factors[9].

### B. Distribution of Respondents Based on Anxiety Levels Based on Age in Third Trimester Pregnant Women at the Busungbiu I Health Center in Buleleng

Table 2 Data on the Distribution of Respondents Based on Anxiety Levels by Age in Third Trimester Pregnant Women at the Busungbiu I Buleleng Health Center

Age of Pregnant Women	Anxiety Level				Total
	No Anxiety n (%)	Mild Anxiety n (%)	Moderate Anxiety n (%)	Severe Anxiety n (%)	
Young age	1 (1,25%)	11 (13,75%)	12 (15%)	10 (12,5%)	42,5%
Sufficient age	8 (10%)	4 (5%)	6 (7,5%)	2 (2,5%)	25%
Older age	1 (1,25%)	10 (12,5%)	10 (12,5%)	5 (6,25%)	32,5%
<b>Total</b>	<b>10 (12,5%)</b>	<b>25 (31,25%)</b>	<b>28 (35%)</b>	<b>17 (21,25%)</b>	<b>80 (100%)</b>

Table 2 provides a breakdown of respondents based on anxiety levels according to age groups. It was observed that younger pregnant women (less than 20 years old) had a higher prevalence of moderate anxiety (15%) and mild anxiety (13.75%). In comparison, moderate anxiety was reported by 10% of pregnant women in the moderate age group (20-35 years), while older pregnant women (over 35 years) had a higher proportion of moderate anxiety (12.5%). The results obtained are similar to the results of a study conducted by (Yasin et al., 2019) in the group of young pregnant women (<20 years), 2 people (28.6%) experienced moderate anxiety, and 5 people (71.4%) ) experiencing severe anxiety. Among pregnant women aged 28-35, 17 (77.3%) had no mild anxiety, and 5 (22.7%) had moderate anxiety. In the group of older pregnant women (> 35 years), 2 pregnant women experienced mild anxiety (100%).

The findings of a study by Alibasjah et al., 2016 [10] show the same pattern, with 10 young pregnant women (17.2%) reporting moderate anxiety in the third trimester, and some primigravida pregnant women (29.3%) reporting moderate anxiety in the third trimester. The results of this study differed for the older age group; Third trimester pregnant women reported moderate anxiety as many as five people (98.6%). Age has an impact on psychological health; the older a person is, the more

emotionally and physically able they are to handle pregnancy because their reproductive organs are fully developed. Pregnant women who are old enough are mentally prepared to take good care of their pregnancy. Due to unprepared physical conditions, pregnant women under the age of 20 experience feelings of anxiety and fear, while pregnant women over the age of 35 are more likely to experience obstetric problems as well as postpartum morbidity and mortality [11], [12].

Young pregnant women (20 years) who experience severe anxiety may experience a change in perception which causes them to fixate on one thing. Mild anxiety due to stress in everyday life is experienced by pregnant women of the appropriate age, resulting in an expansion of the field of perception. Younger pregnant women experience more stress during their pregnancies than older pregnant women. During this phase, a woman has the lowest risk of medical problems. Teen pregnancy can increase emotional stress. Anemia, high blood pressure, early labour, and cesarean delivery are all potential medical problems that can arise. On the other hand, getting pregnant at or near the age of 35 can be very dangerous for the psyche of the mother and the unborn child. increased birth problems, chromosomal abnormalities, and maternal mortality rate (MMR).

### C. Distribution of Respondents Based on Anxiety Level Based on Educational Status in Third Trimester Pregnant Women at the Busungbiu I Health Center, Buleleng.

Table 3 Data on the Distribution of Respondents Based on Anxiety Levels Based on Educational Status in Third Trimester Pregnant Women at the Busungbiu I Buleleng Health Center.

Educational status	Anxiety Level				Total
	No Anxiety n (%)	Mild Anxiety n (%)	Moderate Anxiety n (%)	Severe Anxiety n (%)	
Graduated from elementary school	1 (1,25%)	1 (1,25%)	9 (11,25%)	6 (7,5%)	21,25%
Graduated from Middle School	1 (1,25%)	9 (11,25%)	9 (11,25%)	5 (6,25%)	30%
Graduated from high school	2 (2,5%)	10 (12,5%)	4 (5%)	2 (2,5%)	22,5%
Graduate S1 or higher	6 (7,5%)	5 (6,25%)	6 (7,5%)	4 (5%)	26,25%
<b>Total</b>	<b>10 (12,5%)</b>	<b>25 (31,25%)</b>	<b>28 (35%)</b>	<b>17 (21,25%)</b>	<b>80 (100%)</b>

Table 3 presents the distribution of respondents based on anxiety levels according to educational status. The findings indicate that pregnant women with lower levels of education, such as those who completed elementary or middle school, had higher rates of moderate anxiety. In contrast, pregnant women with higher education levels, such as those who graduated from high school or obtained a degree, reported lower levels of anxiety. In a previous study by Muzayyana & Nurul Hikma Saleh, 2021 [13] 66 pregnant women participated, and 51 (77.3%) respondents had a low level of education and reported experiencing anxiety, while only 15 (22.7%) respondents with a high education level who reported experiencing anxiety. The test results also showed a significant relationship between maternal education and pregnant women's anxiety during the third trimester of the COVID-19 pandemic ( $P-V = 0.028 = 0.05$ ). Pregnant women often experience anxiety during the third trimester of their pregnancy, when they start worrying about various issues, including the upcoming due date. Age, gender, education, occupation, and knowledge are several aspects of the COVID-19 pandemic that contribute to community concern [14].

According to research results [15] In contrast to pregnant women with low education levels, pregnant women with higher education levels can use their reasoning to react to COVID-19 events in a constructive and adaptive manner. Due to a lack of understanding in assessing the incidence of COVID-19, which shapes their views and causes them to react with fear, pregnant women with poor education levels are more likely to develop anxiety problems[16].

The results of this research study have made significant contributions towards addressing the problem of anxiety among pregnant women facing childbirth during the Covid-19 pandemic. By

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collecting data from 80 pregnant women in their third trimester at the Busungbiu I Health Center in Buleleng, the study successfully provided valuable insights into the anxiety levels experienced by these women and shed light on the factors influencing their anxiety.

Firstly, the study revealed that a considerable proportion of pregnant women in the sample reported experiencing anxiety. This finding emphasizes the importance of addressing the psychological well-being of pregnant women during challenging times, such as the Covid-19 pandemic. The identification and recognition of anxiety levels among pregnant women can help healthcare providers and support systems devise appropriate interventions and support mechanisms.

The research findings also highlighted the varying levels of anxiety based on age and educational status. Younger pregnant women, particularly those below 20 years old, exhibited higher levels of anxiety, while older pregnant women faced different challenges related to obstetric problems. This understanding of age-related differences in anxiety levels can assist healthcare professionals in tailoring their approach and support for pregnant women in different age groups. Similarly, the correlation between educational status and anxiety levels underscores the need for targeted interventions and education programs to empower pregnant women with lower education levels and improve their ability to cope with anxiety.

Furthermore, the study findings align with previous research conducted in different regions, strengthening the generalizability and reliability of the results. The consistency of these findings across different studies emphasizes the widespread nature of anxiety among pregnant women during the Covid-19 pandemic and the importance of addressing this issue globally.

Overall, this research study has successfully achieved its objective of identifying and understanding the anxiety levels of pregnant women facing childbirth during the Covid-19 pandemic. The findings contribute valuable knowledge to the field, enabling healthcare providers, policymakers, and support systems to develop effective strategies and interventions to alleviate anxiety and provide appropriate support to pregnant women. By addressing the psychological well-being of pregnant women, healthcare systems can enhance the overall maternal health experience and improve outcomes for both mothers and infants during challenging times.

#### 4. CONCLUSION

This study concludes that among pregnant women in the third trimester at Puskesmas Busungbiu I, the highest number of respondents experienced moderate levels of anxiety, accounting for 28 individuals or 35% of the total. Furthermore, it was observed that individuals below the age of 20 and those with a primary or secondary education level had the highest incidence of moderate anxiety. To enhance the well-being of pregnant women and assist them in coping with the challenges posed by the pandemic, it is recommended to implement various measures. These measures include increasing efforts to educate pregnant women about the importance of pregnancy knowledge, providing them with relevant information, and complementing existing health protocols with services such as online health consultation. These interventions aim to create a more comfortable environment for pregnant women and support them in managing their anxiety effectively.

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