

# Factors Related to Anxiety in Pregnant Mothers During the Covid-19 Pandemic in Puskesmas Purwokerto Timur 1

*by Devita Elsanti*

---

**Submission date:** 07-Apr-2023 08:57PM (UTC+0700)

**Submission ID:** 2058379018

**File name:** 10372-Article\_Text-49099-1-10-20220207.pdf (274.07K)

**Word count:** 2725

**Character count:** 14682



## Research Article

4  
**Factors Related to Anxiety in Pregnant Mothers During the Covid-19 Pandemic in Puskesmas Purwokerto Timur 1**Devita Elsanti<sup>1,\*</sup> and Sumarmi Sumarmi<sup>2</sup><sup>1</sup>Nursing Department, <sup>17</sup>Universitas Muhammadiyah Purwokerto, Indonesia<sup>2</sup>Nursing Department, Sekolah Tinggi Ilmu Kesehatan, Tanawali Persada Takalar, Indonesia**ORCID**Devita Elsanti: <https://orcid.org/0000-0002-5635-7768>

**Abstract.** Covid-19 is an acute respiratory tract disorder caused by the Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2). Pregnant women are vulnerable to health problems, especially infectious diseases such as Covid-19. The increased risk during pregnancy can lead to a number of problems, including increased anxiety. The aim for this study was to determine the factors related to the level of anxiety in pregnant women during the Covid-19 pandemic. This was a quantitative study with an analytical observational research design and a cross-sectional approach. The population was pregnant women who had their pregnancy checked at Puskesmas Purwokerto Timur 1. The sample was taken using an accidental sampling technique with a total of 79 respondents. Anxiety was measured using the Zung-Self Rating Anxiety Scale (ZSAS) and the data were then analyzed using the Chi-square test. 19.0% of pregnant women did not experience anxiety, 67.1% experienced mild anxiety, and 13.9% experienced moderate anxiety. Of the five variables studied, all showed a significant relationship with the level of anxiety, namely age ( $p = 0.029$ ), education ( $p = 0.022$ ), occupation ( $p = 0.017$ ), income ( $p = 0.020$ ), and coping responses ( $p = 0.035$ ).

**Keywords:** Covid-19, pregnancy, anxiety**1. Introduction**

Coronavirus Disease 2019 (Covid-19) is an acute respiratory infection caused by the coronavirus Severe Acute Respiratory Syndrome Virus 2 coronavirus (SARS-CoV-2). This virus was initially found in December 2019 in Wuhan, Hubei Province, China, and quickly spread throughout the world. Rohmah and Nurdianto [1]. Covid-19 is easily spread due to the spread of the Covid-19 virus itself, which occurs when a person who is positive for Covid-19 coughs or sneezes, resulting in a droplet splash [2].

According to WHO data, confirmed cases of Covid-19 in the world reached 136,291,755 cases as of April 14, 2021, with 2,941,128 infected deaths (CFR 2.2%) in 222 nations and 190 local transmission countries. The first time this case was reported in Indonesia occurred on March 2, 2020, with two positive verified cases. As of April 14, 2021, there were 1,577,526 confirmed cases, 42,782 deaths (CFR 2.7 %),

Corresponding Author: Devita  
Elsanti; email: [elsanti.devita@gmail.com](mailto:elsanti.devita@gmail.com)

Published: 7 February 2022

Publishing services provided by  
Knowledge E© Devita Elsanti and Sumarmi  
Sumarmi. This article is  
distributed under the terms of  
the Creative Commons  
Attribution License, which  
permits unrestricted use and  
redistribution provided that the  
original author and source are  
credited.Selection and Peer-review under  
the responsibility of the IVCN  
Conference Committee.**OPEN ACCESS**

58,450 suspected cases, 9,104,462 confirmed negative cases, and 9,060,658 cases with specimens evaluated [3].

As of June 10, 2021, there were 215,503 confirmed cases in Central Java Province, with 189,056 recovered patients and 13,688 died [4]. There were 11,399 confirmed positive Covid-19 cases in the Banyumas Regency area, according to data obtained on June 10, 2021. There was a total of 10,569 people recovered and 434 died [4].

<sup>3</sup> COVID-19 can cause a variety of clinical manifestations, ranging from mild signs and symptoms like fever, cough, sore throat, myalgia, and malaise to severe signs and symptoms like pneumonia with or without acute respiratory distress syndrome, kidney failure, and multiorgan dysfunction, all of which may necessitate immediate critical care support [5].

Pregnant women are particularly susceptible to health issues, particularly infectious diseases like Covid-19. Because of the physiological changes that occur during pregnancy, this is the case [6].

An increase in risk during pregnancy can cause a variety of issues, including anxiety [7]. Anxiety is a worry, uneasiness, or restlessness over something with possible future events that can coexist with, affect, or create depression [8].

As a result of the pandemic, an increasing number of people are feeling anxious and even depressed. Experts divide anxiety into two levels: 1) psychological level, which includes anxiety that manifests as psychological symptoms such as tension, worry, confusion, difficulty concentrating, feelings of uncertainty, and so on; and 2) physiological level: anxiety that has caused or manifested physical symptoms, particularly in the nervous system, such as stomach nausea, insomnia, tremors, heart palpitations, and so on [9]. While depression is a condition in which people experience symptoms such as sadness, depression, loneliness, pessimism, decreased appetite, requiring more effort to do things, having trouble sleeping, having trouble doing things, and having poor social relationships [10].

Pregnancy that is accompanied by anxiety lowers the mother's immunity, making pregnant women more vulnerable to Covid-19 infection [6]. <sup>9</sup> Preeclampsia, depression, nausea, vomiting, and even premature labor or miscarriage can all be symptoms of anxiety experienced by pregnant women. Furthermore, maternal anxiety can exacerbate adverse consequences on newborns, such as low birth weight, growth retardation, or low APGAR scores [8].

<sup>8</sup> The occurrence of these issues, as well as the high number of Covid-19 cases in Indonesia, prompted researchers to find what factors related to the level of anxiety of <sup>21</sup> pregnant women in the Working Area of Purwokerto Timur Health Center 1 during the

Covid-19 pandemic. Purwokerto Timur sub-district had 783 confirmed positive Covid-19 cases in June 2021. This location has the second most positive confirmed case after the Purwokerto Selatan sub-district. Meanwhile, since 2021, a total of 6 pregnant women have been exposed to Covid-19 at Puskesmas (Health Center) Purwokerto Timur 1. Therefore, the author formulates the problem "What factors are related to the level of anxiety of pregnant women during the Covid-19 pandemic in Working Area of Puskesmas Purwokerto Timur 1?" .

## 2. Methods

The research employed an analytic observational design with a cross-sectional methodology. This study was carried out in the working area of Puskesmas Purwokerto Timur 1 on the 16<sup>th</sup> to the 25<sup>th</sup> of July, 2021. Accidental Sample was employed as the sampling method. A total of 79 pregnant women were included in this study. Pregnant women who were willing to be respondents and did pregnancy checks at Puskesmas Purwokerto Timur were included in study.

In this study, the instrument was a three-part questionnaire sheet with data on respondent characteristics, and a ZSAS questionnaire was used to measure anxiety levels, and coping response surveys.

The Health Research Ethics Commission (KEPK) of the Faculty of Health Science at the Universitas Muhammadiyah Purwokerto has given their approval to this study, which has the registration number KEPK/UMP/01/VIII/2021.

## 3. Result

With a total of 55 respondents, it is known that the majority of pregnant women are between the ages of 20 and 35. (69.6%). In terms of education, the majority (58 respondents or 73.4%) have completed secondary school (SMP/SMA/Equivalent) (73.4%). The majority of pregnant women, 59 out of 100, do not work (74.7%). In terms of income, the majority of respondents, 55 in total, have a low income (69.6%). The majority of the 2<sup>nd</sup> trimester respondents were 35 at gestational age (44.3%). With a total of 48 respondents, the majority of pregnancies are between two and three (60.8%). The majority of pregnant women, 53 people (67.1%), experience mild anxiety. 47 pregnant women (59.5%) use maladaptive coping when experiencing anxiety.

TABLE 1: Respondents' Characteristic

Respondents' Characteristics	Frequency (N)	Percentage (%)
<b>Age</b> Age Risk (<20 and> 35) Age Risk (20-35)	24 55	30,4% 69,6%
<b>Education</b> Primary Secondary Higher	4 58 17	5,1% 73,4% 21,5%
<b>Occupation</b> Working Not Working	20 59	25,3% 74,7%
<b>Family Income</b> Low (<Regional Minimum Wage) High (> Regional Minimum Wage)	55 24	69,6% 30,4%
<b>Gestational age</b> Trimester 1 Trimester 2 Trimester 3	13 35 31	16,5% 44,3% 39,2%
<b>Parity</b> 1 2-3 >3 Total	31 48 0 79	39,2% 60,8% 0 100%

TABLE 2: Distribution of Anxiety Levels

Anxiety Level	Frequency	Percentage
Normal Mild	15 53 11 0	19% 67,1%
Medium Severe		13,9% 0%
Total	79	100%

22

### 3.1. Univariate analysis.

### 3.2. Bivariate Analysis

Table 4 shows the results of the cross-tabulation study, which reveal a relationship between pregnancy age and anxiety levels during the covid-19 pandemic. The p-value for Asymp.Sig (2-tailed) is 0.029. According to [9]'s study of 56 pregnant women, there was a significant association between maternal age and third trimester pregnant women's anxiety, with a p-value of 0.000. Pregnant women's physical condition is influenced by their age. Pregnancy at an ideal age (20-35) can help to prevent the high risk of complications that can arise during pregnancy.

TABLE 3: Distribution of Coping Responses

Variables	Frequency	Percentage
Maladaptive	47	59,5%
Adaptive	32	40,5%
Total	79	100%

TABLE 4: Distribution of Anxiety Frequency by Age

Variables	Anxiety Level				Total	p
	Normal	Mild	Medium	Severe		
Non-risky Age	14	36	5	0	55	0,029
Risky Age	1	17	6	0	24	
Total	15	53	11	0	79	

TABLE 5: Distribution of Anxiety Frequency Based on Education

Variabel	Anxiety Level				Total	p
	Normal	Mild	Medium	Severe		
Elementary	0	2	2	0	4	0,022
Secondary	8	42	8		58	
High	17	9	1	0	17	
Total	15	53	11	0	79	

#### 4. Discussion

Maternal health is strongly influenced by maternal age. Though mentally, at an adult age, a person has been able to calmly solve emotional problems, particularly in dealing with pregnancy, childbirth, and postpartum [11].

The relationship between education level and anxiety of pregnant women in (table 5) reveals that there was a relationship between education level and anxiety of pregnant women at Puskesmas Purwokerto Timur 1 during the Covid-19 pandemic, with a p-value of 0.022. These results are supported with [12] research, which found the connection between education and anxiety among pregnant women in their third trimester who would give birth (p-value 0.002).

Respondents with low education are more likely to have severe anxiety responses as a result of their lack of knowledge of an incident that creates a fearful perception for them in responding [13].

According to [14], pregnant women's lack of understanding of efforts to prevent Covid-19 infection during pregnancy is related to misleading information in the larger

TABLE 6: Distribution of Anxiety Frequency by Occupation

Variables	Anxiety Level				Total	p
	Normal	Mild	Medium	Severe		
Not working	7	44	8	0	59	0,017
Working	8	9	3	0	20	
Total	15	53	11	0	79	

TABLE 7: Distribution of Anxiety Frequency Based on Income

Variables	Anxiety Level				Total	p
	Normal	Mild	Medium	Severe		
Low	6	40	9	0	55	0,020
High	9	13	2	0	24	
Total	15	53	11	0	79	

TABLE 8: Distribution of Anxiety Frequency Based on Coping Response

Variables	Anxiety Level				Total	p
	Normal	Mild	Medium	Severe		
Maladaptive	5	33	9	0	47	0,035
Adaptive	10	20	2	0	32	
Total	15	53	11	0	79	

community concerning Covid-19 transmission, treatment, and prevention. This is also one of the factors that pregnant women experience anxiety.

The relationship between job status and pregnancy anxiety (table 6) reveals that there was a relationship between education level and pregnancy anxiety at Puskesmas Purwokerto Timur 1 during the Covid-19 pandemic, with a p-value of 0.017. According to [15] research, pregnant women who did not work (58.3%) during the Covid-19 pandemic had more anxiety than pregnant women who worked (41.7 %).

When compared to mothers who work, mothers who do not work spend more time at home, that limits their possibilities for information about their pregnancy and causes them to worry more about unfavorable aspects of their pregnancy [16].

The relationship between income level and anxiety of pregnant women (table 7) reveals that there was a relationship between education level and anxiety of pregnant women at Purwokerto Timur Health Center 1 during the Covid-19 pandemic, with a p-value of 0.020. There is a relationship between income and the occurrence of anxiety in pregnant women, according to [17], with a p-value of 0.0340.05.

Anxiety will be triggered if the family's source of income is uncertain. The fulfillment of fundamental needs is influenced by family income, as is the absence of a source of family income. [18].

The relationship between coping responses and the anxiety of pregnant women (in table 8) reveals that there was a relationship between the level of education and the anxiety of pregnant women at the Purwokerto Timur Health Center 1 during the Covid-19 pandemic, with a p-value of 0.035 [19] did a similar study in the working area of Kencong Jember Health Center, finding a relationship between anxiety levels and coping mechanisms in third trimester primigravida mothers (p-value 0.04).

According to [10], a good coping mechanism can influence a person's ability to respond to anxiety, therefore it can be used more by persons with mature thinking patterns compared to younger age groups.

## 5. Conclusion

<sup>25</sup> There was a significant relationship between age, education level, occupation, income, and coping responses and the level of anxiety of pregnant women at Puskesmas Purwokerto Timur 1 during the Covid-19 pandemic.

## References

- [1] Rohmah MK, Nurdianto AR. 476-Transcripts-1654-1-10-20200831. 2020;7:329–336.
- [2] World Health Organization. Coronavirus disease 2019 situation report – 93. Geneva: World Health Organization; 2020.
- [3] Ministry of Health of Republic of Indonesia. Update on coronavirus disease (COVID-19). 2020.
- [4] Dinas Kesehatan Jawa Tengah. Covid-19 in central Java. 2021. Available from: <http://covid19.banyumaskab.go.id/>
- [5] Tantona MD. Jurnal Penelitian Perawat Profesional. 2019;1:89–94.
- [6] Siregar RN, Aritonang J, Anita S. Understanding pregnant mothers about preventing Covid-19 infection effort during pregnancy. 2020;6:798–805.
- [7] Yue C, Liu C, Wang J, et al. Association between social support and anxiety among pregnant women in the third trimester during the coronavirus disease 2019 (COVID-19) epidemic in Qingdao, China: The mediating effect of risk perception. *International Journal of Social Psychiatry*. 2020. DOI: 10.1177/0020764020941567
- [8] Kajdy A, Feduniw S, Ajdacka U, et al. Risk factors for anxiety and depression among pregnant women during the COVID-19 pandemic: A web-based cross-sectional survey. *Medicine (Baltimore)*. 99.
- [9] Rinata E, Andayani GA. Maternal characteristics (age, parity, education) and family support with anxiety in third trimester pregnant women. *Medisains*. 2018;16:14.
- [10] Handayani FP, Fourianalisyawati E. Depression and spiritual welfare in high risk pregnant women depression and spiritual well-being in high risk pregnant women. *Psikologis Teor Dan Terap*. 2018;8:145–153.

- [11] Dewi ADC, Nurbaiti M, Surahmat R, et al. Anxiety among pregnant woman during Covid-19 pandemic in RSUD ibnu sutowo baturaja. *Jurnal Smart Keperawatan*. 2021;8:64–69.
- [12] Suyani S. Correlation between education and Work status with anxiety among pregnant woman on third trimester. *JKM (Jurnal Kesehatan Masyarakat) Cendekia Utama*. 2020;8:19–28.
- [13] Hafid A, Hasrul H. The relationship between the events of the Covid-19 pandemic and the anxiety of third trimester pregnant women. *Jurnal Keperawatan Muhammadiyah*. 6.
- [14] Nurhasanah I. Factors affecting anxiety in pregnant women during the Covid-19 pandemic: Literature review. *Jurnal Bidan Komunitas*. 2021;4:25–30.
- [15] Sut HK, Kucukkaya B. Anxiety, depression, and related factors in pregnant women during the COVID-19 pandemic in Turkey: A web-based cross-sectional study. *Perspect Psychiatry Care*.
- [16] Pane JP, Saragih H, Sinaga A, et al. Anxiety among third trimester pregnant woman facing the birth. *Jurnal Ilmu Keperawatan Jiwa*. 2021;4:461–468.
- [17] Fajriyani, F. Anxiety and its related factor among pregnant woman in Gresik. *Airlangga University*; 2017.
- [18] Moyer CA, Compton SD, Kaselitz E, et al. Pregnancy-related anxiety during COVID-19: A nationwide survey of 2740 pregnant women. *Archives of Women's Mental Health*. 2020;23:757–765.
- [19] Prasetyo. The relationship between anxiety levels and maternal coping mechanisms in dealing with labor in third trimester primigravida mothers in the working area of the Kencong Public Health Center, Jember. *Universitas Muhammadiyah Jember*; 2018.

# Factors Related to Anxiety in Pregnant Mothers During the Covid-19 Pandemic in Puskesmas Purwokerto Timur 1

## ORIGINALITY REPORT

23%

SIMILARITY INDEX

15%

INTERNET SOURCES

18%

PUBLICATIONS

11%

STUDENT PAPERS

## PRIMARY SOURCES

- |   |   |    |
|---|---|----|
| 1 | Submitted to Universitas Negeri Jakarta<br>Student Paper  | 3% |
| 2 | media.neliti.com<br>Internet Source   | 3% |
| 3 | Submitted to Universitas Islam Lamongan<br>Student Paper  | 2% |
| 4 | www.neliti.com<br>Internet Source   | 2% |
| 5 | Maya Ade Kusniarti Pasaribu, Atun Raudotul Marifah, Siti Haniyah. "Characteristics Associated with Anxiety in Cervical Cancer Patients Undergoing Chemotherapy Programs at Dadi General Hospital, Purwokerto Family", Jurnal Berita Ilmu Keperawatan, 2023<br>Publication | 2% |
| 6 | Hatice Kahyaoglu Sut, Burcu Kucukkaya. "Anxiety, depression, and related factors in pregnant women during the COVID - 19 pandemic in Turkey: A web - based cross -  | 1% |

# sectional study", Perspectives in Psychiatric Care, 2020

Publication

---

7	<a href="http://dev.bp-frontend.tf.aws.bmjgroup.com">dev.bp-frontend.tf.aws.bmjgroup.com</a> Internet Source	1 %
8	<a href="http://www.esp.org">www.esp.org</a> Internet Source	1 %
9	Anna Kajdy, Stepan Feduniw, Urszula Ajdacka, Jan Modzelewski et al. "Risk factors for anxiety and depression among pregnant women during the COVID-19 pandemic", Medicine, 2020 Publication	1 %
10	<a href="http://personel.trakya.edu.tr">personel.trakya.edu.tr</a> Internet Source	1 %
11	Khoirun Mukhsinin Putra, Nur Riviati, Djunaidi AR. "Clinical Correlations Delirium and other Comorbid in Elderly with COVID-19 Infection", Bioscientia Medicina : Journal of Biomedicine and Translational Research, 2021 Publication	1 %
12	Yayat Suryati, Fitri Solihat. "The Effect of Warm Water Soaking Therapy on Sleep Quality in Third Trimester Pregnant Women", KnE Life Sciences, 2022 Publication	1 %

---

13	Internet Source	1 %
14	Chongyu Yue, Cuiping Liu, Jing Wang, Meng Zhang, Hongjing Wu, Chunrong Li, Xiuling Yang. "Association between social support and anxiety among pregnant women in the third trimester during the coronavirus disease 2019 (COVID-19) epidemic in Qingdao, China: The mediating effect of risk perception", International Journal of Social Psychiatry, 2020 Publication	1 %
15	<a href="http://www.tandfonline.com">www.tandfonline.com</a> Internet Source	1 %
16	Submitted to CSU Channel Islands Student Paper	1 %
17	Muaningsih Muaningsih, Suryani Suryani, Mikawati Mikawati, Indah Sari. "Breastfeeding in Mothers Infected With COVID-19", KnE Life Sciences, 2022 Publication	<1 %
18	<a href="http://ijop.net">ijop.net</a> Internet Source	<1 %
19	<a href="http://repository2.unw.ac.id">repository2.unw.ac.id</a> Internet Source	<1 %
20	Tanti Apriliana, Budi Anna Keliat, Mustikasari, Yefta Primasari. "A Contributing Factor of	<1 %

# Maternal Pregnancy Depression in the Occurrence of Stunting on Toddlers", Journal of Public Health Research, 2022

Publication

21

[www.ejurnalskalakesehatan-poltekkesbjm.com](http://www.ejurnalskalakesehatan-poltekkesbjm.com)

Internet Source

<1 %

22

[catalog.uttyler.edu](http://catalog.uttyler.edu)

Internet Source

<1 %

23

[pubcovid19.pt](http://pubcovid19.pt)

Internet Source

<1 %

24

Najmieh Saadati, Poorandokht Afshari, Hatam Boostani, Maryam Beheshtinasab, Parvin Abedi, Elham Maraghi. "Health anxiety and related factors among pregnant women during the COVID-19 pandemic: A cross-sectional study from Iran", Research Square, 2020

Publication

<1 %

25

Rizki Nugraha Agung, I Made Kariasa, Masfuri Masfuri, Yani Sofiani, Abdu Rahim Kamil. "Factors Affecting the Quality of Life of Epilepsy Patients", KnE Life Sciences, 2022

Publication

<1 %

Exclude bibliography  On