# Social support with anxiety of pregnant mothers in trimester iii facing labor in the time of the covid-19 pandemic in 2022

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A B S T R A C T

Pregnant women have the most intense anxiety among vulnerable and high-risk groups during the COVID-19 pandemic. Increased stress hormone levels limit cervical dilatation, resulting in protracted labor due to excessive worry. One of the reasons of Indonesia's high maternal death rate is prolonged labor. This research sought to identify the variables that impact the anxiety of third-trimester pregnant women at the Community Health Center of Kasihan I during the COVID-19 pandemic in 2022. The study strategy used was a cross-sectional survey approach. The sampling strategy used was purposeful sampling, and the sample size was 74 respondents. Using multiple logistic regression, univariate, bivariate, and multivariate data analyses were conducted. The findings demonstrated a correlation between social support and the anxiety of third-trimester pregnant women at the Community Health Center of Kasihan I in 2022 who were anticipating delivery. This research concludes that there is a correlation between the variable of social support and the anxiety of third-trimester pregnant women.

A B S T R A K

Kecemasan yang dirasakan paling akut pada populasi rentan dan berisiko tinggi dimasa pandemi COVID-19 yaitu pada ibu hamil. Kecemasan yang berlebihan menyebabkan kadar hormon stres dalam tubuh meningkat dan menghambat dilatasi serviks, mengakibatkan persalinan lama. Persalinan lama merupakan salah satu penyebab tingginya angka kematian Ibu di Indonesia. Penelitian ini bertujuan untuk mengetahui faktor-faktor yang mempengaruhi kecemasan ibu hamil trimester III dalam menghadapi persalinan di masa pandemi COVID-19 di Puskesmas Kasihan I tahun 2022. Desain penelitian yang digunakan adalah Cross-Sectional dengan metode survey analitik. Pengambilan sampel dengan teknik purposive sampling, sampel berjumlah 74 responden. Data dianalisis secara univariat, bivariat dan multivariat menggunakan regresi logistik berganda. Hasil penelitian terdapat hubungan antara dukungan sosial dengan kecemasan ibu hamil Trimester III dalam menghadapi persalinan di Puskesmas Kasihan I Tahun 2022. Simpulan penelitian ini variabel dukungan sosial dengan kecemasan ibu hamil trimester III

## INTRODUCTION

COVID-19 is a highly contagious respiratory disease that is rapidly emerging as an unprecedented epidemic (Provenzi et al., 2020). In December 2021, COVID-19 infected more than 300 million people of the world's population, resulting in death, shortage of medical resources, unemployment, economic hardship, and changes in daily life (WHO, 2021). More than 4 million humans were infected by January 2022 in Indonesia (Johns Hopkins University, 2022). The first COVID-19 case in Yogyakarta occurred in March 2020, making various existing programs and activities focused on saving the people of the city of Yogyakarta by controlling the spread of COVID-19 (Yogyakarta Health Office, 2021). The impact of this virus is the emergence of health and economic problems (Serafini et al., 2020). Many people have been laid off from their jobs and employers have been affected by COVID-19, resulting in financial difficulties (Xie et al., 2021). The COVID-19 pandemic is not only epidemiological but is a psychological crisis, one of the adverse psychological crises is anxiety (Yassa et al., 2020). The population that is vulnerable and at high risk for anxiety is pregnant women (Hessami et al., 2020). The fear and anxiety of pregnant women increased during the COVID-19 pandemic (Mortazavi et al., 2021). Pregnancy and childbirth are physiological events but have the risk of becoming pathological (Putri & Kurniati, 2021). The anxiety of pregnant women is a new complication of the pandemic with serious consequences for the physical health of the mother (Timircan et al., 2021).

One of the causes of anxiety during pregnancy is an adjustment to being a mother (Ravaldi et al., 2021). Pregnant women in the third trimester will experience more anxiety disorders than in the first and second trimesters (Saadati et al., 2021). Third-trimester pregnant women become more protective of the baby they are carrying, mothers avoid crowds that they think will be dangerous, make them feel physical discomfort, make them feel awkward, and make them look ugly and messy (Walyani, 2015). The third trimester of pregnancy is an alert period for pregnant women because pregnant women will feel impatient to wait for the birth of the baby, worry that the baby will be born abnormally, haunted by a fear of pain during the delivery process (Dewi & Sunarsih, 2014). Antenatal anxiety, if left untreated, can lead to postpartum depression, suicidal behavior, preeclampsia, premature birth, low birth weight, and impaired neurobehavioral and socio-emotional development of children (Tikka et al., 2021). Mothers who are not ready to face childbirth will be more anxious (Putri & Kurniati, 2021).

Excessive anxiety in the mother will cause stress hormone levels in the body to increase thus it inhibits cervical dilation, which in turn results in prolonged labor, fatigue, and Fetal Distress to IUFD (Intra Uterine Fetal Death) (Putri & Kurniati, 2021). Excessive anxiety also causes an increase in blood pressure thus it can be a factor in the occurrence of hypertension in pregnant women (Dewi & Sunarsih, 2014). Anxiety disorders affect more than 264 million people worldwide (WHO, 2022). In the United States, 36% of women suffer from anxiety disorders during pregnancy (Liu et al., 2021). In Guangxi Zhuang, China, there were 36.77% of pregnant women experience anxiety (Ge et al., 2021), in Canada the contribution of increasing anxiety of pregnant women significantly up to 72% (Ahmad & Vismara, 2021), the prevalence of anxiety felt by pregnant women in China is 43.6% (Wang et al., 2021), in Indonesia the prevalence of anxiety is 42.4% (Putri & Kurniati, 2021). These data indicate that the prevalence of anxiety disorders in pregnant women is still quite high.

Factors that can affect anxiety are social support, perceived risk of COVID-19, education level, maternal age, maternal parity, and family income (Grumi et al., 2021; Kajdy et al., 2020; May et al., 2021; Mortazavi et al., 2021; Racine et al., 2021; Wang et al., 2021; Yue et al., 2021). Most people still think that a pregnancy will develop normally and produce a healthy baby who is a full term through the birth canal, in fact, many things can happen beyond expectations. It is quite difficult to know that pregnancy can be a risk problem that cannot be predicted to be problematic during pregnancy until the delivery process. During this COVID-19 pandemic, public fear has increased due to fear of contracting the virus in healthcare facilities. Therefore, the existence of antenatal services is support to monitor and support the health of pregnant women and can detect early complications that occur in pregnancy, as well as monitor the mother's psychology (Saifuddin, 2017).

The Health Office of Yogyakarta has prepared a Strategic Plan (Renstra) program "Improving the Degree of Public Health" by improving the quality of health facilities and increasing healthy families, namely increasing basic and referral health services, increasing health service efforts, regulation, and development of health resources, increasing public health as well as increasing disease prevention and control, including maintaining maternal health in the form of physical and psychological health (Yogyakarta Health Office, 2021).

The 5S approach by midwives is an effort for maternal mental health during the COVID-19 pandemic, namely self-care (self-care such as yoga and relaxation exercises), social support (social support/husband), stepped care (collaborative care steps with health workers), systems integration (system integration) and smartphone enable service (activation of mobile-based health services) (Shidhaye et al., 2020). Midwives have an obligation to meet the needs of pregnant women in the form of readiness for delivery. This is contained in the decision by the Minister of Health of the Republic of Indonesia (Kepmenkes RI) No. 369/MENKES/III/2007 concerning the professional standards of midwives in carrying out their profession, the government in 2007 launched the P4K program, namely the delivery planning program in the prevention of complications which aims to improve coverage of deliveries by midwives, forming a group of blood donors in case of bleeding at any time, planning for delivery and preparing transportation to the hospital if a case occurs (Ministry of Health of the Republic of Indonesia, 2016). With the holding of these programs, it is hoped that pregnant women will be assisted in their pregnancy until the delivery process, including reducing the anxiety of third-trimester pregnant women in facing their delivery.

Based on the results of a preliminary study conducted at the Bantul District Health Office on January 19, 2022, data from January to November 2021 revealed that the number of pregnant women in Bantul Regency was 14.234 pregnant women. The public health center with the highest number of pregnant women is the Community Health Center of Kasihan I (Bantul District Health Office, 2021). From the results of a survey at the Community Health Center of Kasihan I, Bantul Regency on January 31, 2022, it was found that the coverage of pregnant women in 2021 was 819 pregnant women with the number of pregnant women in the third trimester in March as many as 216 pregnant women. A further preliminary study was carried out by researchers on March 7 and 10, 2022 with direct interviews with 5 third-trimester

pregnant women at the Community Health Center of Kasihan I, Bantul Regency. The results obtained showed that during the COVID-19 pandemic, mothers were afraid of contracting COVID-19, especially if a mother is positive for COVID-19, the mother does not want to give birth alone without being accompanied by her husband, the mother is afraid of the birthing process, besides that the mother is worried that bad things will happen at the time of delivery.

## METHOD

### The Characteristics of Sample and Research Design

This study used an approach, namely a cross-sectional approach. The total number of samples was 74 respondents. The sample inclusion criteria were healthy pregnant women (no comorbidities/complications in pregnancy, pregnant women with a third trimester of pregnancy (28-40 weeks) who were being examined at the Community Health Center of Kasihan I of Bantul Regency, mothers who can read and write well, and mothers who can be willing to be respondents. The exclusion criteria were pregnant women who had complications during pregnancy at the Community Health Center of Kasihan I, Bantul Regency.

### Sampling procedure

Starting at the beginning of the research, pregnant women in their third trimester who received prenatal care at the Community Health Center of Kasihan I were interviewed until a sufficient number of responses were obtained. Next, the researcher explained the purpose, benefits, title, and confidentiality of the respondent, then after receiving an explanation and the mother was willing to be the subject of the study, the researcher gave a sheet in the form of Informed Consent which the respondent would sign, then she filled out the questionnaire. The questionnaire that is filled in by the respondent will be checked for completeness of the data filled in. If it is incomplete, the researcher invites the respondent to complete it. After filling out the questionnaire, the researcher collected the questionnaire and thanked the respondents by providing compensation.

### Sample size, power, and precision

Sampling for this research used a purposive sampling technique. The formula for calculating the sample size uses the sample size formula for testing the one-proportion hypothesis (Lemeshow, et al., 1997), namely:

$$n = \frac{N.Z^2\alpha/_2.P\,(1-P)}{d^2(N-1)+Z^2\alpha/_2.P\,(1-P)}$$

$$n = \frac{216.(1,96)^2.\,0,5\,(1-0,5)}{(0,1)^2.(216-1)+(1,96)^2.\,0,5.0,5}$$

$$n = \frac{216.(3,8416).\,0,25}{0,01\,(215)+3,8416.0,25}$$

$$n = \frac{207,4}{3,11}$$

$$n = 66,68$$

$$n = 67$$

The minimum sample size is 67 respondents to anticipate the possibility of dropping out, an additional 10% is made thus the total number of samples becomes 74 respondents.

## Measurements and Covariates

The method of collecting data in this study was carried out using primary data from a questionnaire. The questionnaire of social support used the SSRS (Social Support Rating Scale) compiled by Xiao (1994). This questionnaire had been translated by an expert with an expert judgment given by Endang Koni Suryaningsih, S.ST., MSc.N-M., Ph.D. Answers to questions 1 through 4 and 8 through 10 are worth 1 to 4 points each. As for question 5, it counts as 4-16 points. Questions 6 and 7 are worth 0 to 9 points, depending on the total number of sources cited. The sum of the scores for the three dimensions is the scale's total score, which ranges from 11 to 62. The greater the score, the more social support (Yue et al., 2021). During the COVID-19 pandemic, the third-trimester anxiety questionnaire for pregnant women used the Perinatal Anxiety Screening Scale (PASS), which was valid and authentic, and already had consistent criteria with high-reliability values (Cronbach's ranged from 0.86 to 0.90), namely (Cronbach's 0.96), sensitivity value 0.70, and specificity value 0.30. (Somerville et al., 2014).

### Data analysis

The statistical test used is Chi-Square, namely by testing the relationship between two categorical variables with a significant level of 95% with the conclusion criteria if the p-value is <0.05

## RESULTS AND DISCUSSION

Of the 74 respondents, the highest percentage experiencing anxiety was 43 respondents (58.1%) and the lowest social support was 63 respondents (85.1%) (Table 1). Furthermore, pregnant women who experienced more anxiety were found in the moderate perception group of the risk of COVID-19 with a total of 32 people (43.2%), and pregnant women who experienced more anxiety were found in the group that received low support with a total of 40 people (54.1%), and pregnant women who received high social support did not experience anxiety. By using Chi-Square, the statistical test results obtained in the form of p-value = 0.011<0.05 which means that there is a relationship between social support and the anxiety of third-trimester pregnant women facing childbirth during the COVID-19 pandemic at the Community Health Center of Kasihan I in 2022. The value in the form of a contingency coefficient shows that C = 0.331. With these results, the closeness of the contingency coefficient relationship is low (0.20-0.399). (Table 2).

The most support is the support that comes from a partner, then support from relatives and other family members. These results are in line with research from Thomas (2018), that support from a partner or family for the physical and psychological well-being of pregnant women, especially during the first pregnancy is very important. Support from partners and families can reduce the effects of anxiety or stress on pregnant women and fetuses (Thomas et al., 2018). Support from family and surroundings can strengthen affectionate relationships and reduce anxiety for pregnant women (Taubman–Ben-Ari et al., 2020). Lebel's research (2020), shows that symptoms of anxiety during the COVID-19 pandemic will be lower if respondents have better social support, especially partner support and the

environment in general (Lebel et al., 2020). In addition, research by Ahlers-Schmidt (2021), stated that almost a quarter of respondents experienced a decrease in support from their families and people around them during the pandemic (Ahlers-Schmidt et al ., 2020). It was also reported that support for pregnant women was lower during the pandemic than before the pandemic in China (Matvienko-Sikar et al., 2021). Family support is the acceptance of family members in the form of informational, evaluation, instrumental, and emotional assistance shown by family members. Pregnant women who feel anxiety due to physical

and psychological changes throughout pregnancy may find the attention and support of their closest loved ones to be quite beneficial. When pregnant women feel concerned and frightened about their pregnancy, the love and support of their family members may bring comfort and assurance. The mother's health and worry for the health of the fetus will be impacted by the family's involvement in helping pregnant women. Pregnant women are confident, content, and prepared to endure pregnancy, labor, and the postpartum period. (Desy, 2017).

**Table 1 Frequency Distribution of Third Trimester Pregnant Women Anxiety and Social Support at the Community Health Center of Kasihan I in 2022**

| No | Variable | Frequen (f) | Percentage (%) |
|---|---|---|---|
| 1. | Anxiety | | |
| | Not experiencing anxiety | 31 | 41,9 |
| | Experiencing anxiety | 43 | 58,1 |
| 2. | Social support | | |
| | High support | 6 | 8,1 |
| | Medium support | 5 | 6,8 |
| | Low support | 63 | 85,1 |

**Table 2 Relationship of Social Support with Anxiety of Third-Trimester Pregnant Women Facing Childbirth during the COVID-19 Pandemic Period at the Community Health Center of Kasihan I in 2022**

| Social support | Anxiety | | | | Total | | p- value | C |
|---|---|---|---|---|---|---|---|---|
| | Not experiencing anxiety | | Experiencing anxiety | | f | % | | |
| | f | % | f | % | | | | |
| High | 6 | 8,1 | 0 | 0 | 6 | 8,1 | | |
| Medium | 2 | 2,7 | 3 | 4,1 | 5 | 6,8 | 0,011 | 0,331 |
| Low | 23 | 31,1 | 40 | 54,1 | 63 | 85,1 | | |
| Total | 31 | 41,9 | 43 | 58,1 | 74 | 100 | | |

Support from her spouse and family is one strategy for reducing anxiety and fostering inner calm in pregnant women, as well as emotions of joy in the mother during birthing (Mahmudah, 2016). Family support, such as that provided by the spouse, is the single most important resource for battling anxiety (Pomerantz, 2014). Pregnant women need the support of their husbands in order to prepare for delivery. In this instance, the spouse takes an active part in persuading pregnant women to get their pregnancies assessed by health professionals and to receive services that exceed industry standards, (Sumiati, 2015). The better the support provided, the less anxiety in pregnant women. Family members and health professionals can support mothers from the beginning of pregnancy to delivery. This is to stimulate the mother's confidence to reduce her anxiety (Bobak, 2014).

## LIMITATION OF THE STUDY

A limitation of this study is that at the time of the research there were some pregnant women who refused to participate in filling out the questionnaire due to the COVID-19 pandemic. Another limitation is when data collection is carried out 3 times a week, namely Monday, Wednesday, and Thursday, but what researchers have experienced is that it is often carried out on the same day as a national holiday where the time to collect data is less than optimal.

## CONCLUSIONS AND SUGGESTIONS

The conclusion of the study shows that there is a relationship between the perception of the risk of COVID-19 and the anxiety of pregnant women in the third trimester in facing childbirth during the COVID-19 pandemic at the Community Health Center of Kasihan I in 2022. Midwives are expected to encourage mothers to include their husbands or include their families. in the examination of pregnancy for pregnant women and can also provide information related to factors that cause anxiety, so that pregnant women can prepare as early as possible for their physical and psychological health in order to prevent anxiety.

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## ETHICAL CONSIDERATIONS

Approval to conduct this study from the institution's research ethics committee. This research was conducted an ethical worthy test at the ethics commission of the University of "Aisyiyah Yogyakarta with the results of an

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## Conflict of Interest

The writers have no conflicts of interest to declare.

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