ABSTRACT

Background: Based on the results of a study in Bengkulu, it showed that the value of anxiety in pregnant women during the Covid-19 pandemic reached 39.8% of 40 respondents. It should be noted that the current Covid-19 pandemic has raised concerns/anxiety for pregnant women regarding the growth and development of babies in the womb. This is in accordance with the initial survey in the Kertosari Village, Banyuwangi City on 10 pregnant women, where 8 pregnant women did not understand the Covid-19 pandemic and the management of pregnancy tests during the Covid-19 pandemic, and pregnant women had anxiety about being exposed to the Covid-19 virus, so that pregnant women never did routine pregnancy check-ups at the Community Health Center. This condition also requires an effort from health workers to help overcome the anxiety of pregnant women by providing socialization about the management of antenatal care during the Covid-19 pandemic, and conducting
counseling to help pregnant women reduce their anxiety, as well as teaching sports activities for pregnant women to stay relaxed and fit during her pregnancy.

Objective: To find out the relationship between the knowledge of pregnant women about Covid-19 and their anxiety during the Covid-19 pandemic.

Methods: this study used quantitative descriptive with a sample of 35 pregnant women as the respondents. This study was conducted in Kertosari Village. The knowledge variable was grouped into three, namely good, fair, and poor. It belongs to good knowledge category if the total score of the percentage of the questionnaire is > 85%, fair if the total score of the percentage of the questionnaire is 57-85%, poor if the total score of the percentage of the questionnaire is < 42%. Then, regarding anxiety variable, it is grouped into three, namely mild, moderate, severe, it is said to be mild anxiety if the total score of the questionnaire percentage score is 7-23%, moderate anxiety if the total score of the questionnaire percentage score is 30-53%, severe anxiety if the total score of the questionnaire percentage score 61-100%. The analysis used univariate and bivariate, with statistical test using Chi Square test.

Results: The results of the analysis of the total score of respondents’ knowledge were included in the poor category, and the results of the respondents’ anxiety were obtained in the severe category, with a value of $X^2$ obtained = 12,434 and df = 4 with a significance level of 0.014 or 1.4%. The value of $X^2$ table = 9,488, then there was a significant effect of good, fair, poor knowledge on mild, moderate, severe anxiety.

Conclusions and Suggestions: there was a significant relationship between knowledge about Covid-19 and the anxiety of pregnant women in dealing with the Covid-19 pandemic. Therefore, it is recommended that there is a need for collaboration between midwives and pregnant women to be able to reduce the anxiety faced by pregnant women, so that pregnant women still want to check their pregnancies with midwives using the recommended health protocols.

Keywords: Pregnant Women, Knowledge, Anxiety, Covid-19 Pandemic

INTRODUCTION

Pregnancy is a natural process and not a pathological process, but normal conditions can be pathological. Hence, in conducting care, there is no need to carry out unnecessary interventions unless there are indications. Every woman has a unique personality, which consists of biological, psychological and social differences so that in serving one patient to another it will be different or it can be said that it should not be the same. Coronavirus is an association of a large family of viruses that can cause disease in humans and animals. In humans it can cause respiratory tract infections, starting with the common cold up to have serious illnesses such as Middle East Respiratory Syndrome (MERS) and Severe Acute Respiratory Syndrome (SARS). This disease can be spread / transmitted to other people through respiratory fluids from coughing or sneezing. This virus can survive on plastic / stainless steel for up to three days, and in aerosols it can last up to three hours. However, this virus can also be found in feces, although in March 2020 it was still not known whether the transmission is through feces and it is estimated that it is also low possibility.

According to Kartini Kartono, anxiety is a form of fear or seriousness in certain things without definite clarity. Then, Sarlito Wirawan states that anxiety is a vague fear of an object and does not have a specific reason (Annisa & Ifdil, 2016). Pregnancy, childbirth, and postpartum period is a period that spans psychological disorders in the mother, which occurs during a pandemic or not. In addition, the mother also is susceptible to virus transmission, and the mother's mental health condition can also decrease due to a lack of direct or indirect support from the family during the mother's pregnancy, childbirth and postpartum process. In a pandemic situation, screening is carried out during pregnancy. Although screening can affect the mother's mental condition, there are not many detailed reports or literacy reports about problems related to the mother's mental condition (Tantona, 2020).

Anxiety during pregnancy can have bad effect on pregnant women from the period of pregnancy to delivery, such as the birth of premature babies and even miscarriages. A restless fetus can also hamper fetal development and lead to weak uterine muscle contractions. Moreover, anxiety during pregnancy also harm the condition of the fetus. Pregnancy with high anxiety can also affect the neurodevelopment of the fetus which can be evaluated from the development of knowledge, emotions and behavior in childhood. According to Puspitasari (2020), during pregnancy, mothers who experience anxiety can affect their intrauterine state and fetal growth. If there is too much stress...
hormone in pregnant women, it can interfere with the blood supply to the fetus which can make the child experience autism. Regarding the bad impact experienced by pregnant women who have anxiety at the time of delivery, it is necessary to take an action to overcome their anxiety and one of which is providing counseling to pregnant women. Counseling for pregnant women can also have a positive impact by providing mental support and explaining the happiness of having children (Latifah, 2019). In addition to counseling, the anxiety felt by pregnant women can also be reduced by doing physical exercise. One of the physical exercises that can be done by pregnant women is yoga because it is quite low cost, easy to do, and beneficial for physical and mental health. Doing yoga during pregnancy will be more effective in reducing anxiety and depression (Hayati, 2020).

Based on Covid-19 data in Banyuwangi Regency as of June 2021, there were 23 cases of Covid-19 in which 5 people recovered, 17 people were in treatment, and 1 person died. Then, based on the results of tracing development, on June 15, 2021, swab test was carried out which resulted in two people had tested positive for Covid-19, 9 people were negative, and the remaining 6 people had yet to come out with the results. Then, 2 people who tested positive for Covid-19 were being treated at the Blambangan Hospital (Sulantari et al., 2021). Most of the occupations of the residents of Kertosari Village, Banyuwangi City District, Banyuwangi Regency are farming. Besides, there are also trade and being employees. From an economic perspective, they are classified as lower middle class. In addition, the education of the people is diverse. Based on initial survey in Kertosari village, Banyuwangi Regency to 10 pregnant women, it showed that there were 8 pregnant women who did not understand about the pandemic Covid-19 and the procedures of pregnancy checks during the pandemic. The results of the survey also showed that pregnant women had anxiety about being exposed to the Covid-19 virus, so pregnant women never did routine pregnancy check-ups at the nearest public health centers.

Based on the background of the study above, the researchers conducted a study to determine the relationship between knowledge of pregnant women about Covid-19 with the anxiety of pregnant women during the Covid-19 pandemic.

RESEARCH METHODOLOGY

This study used quantitative descriptive with a sample of 35 pregnant women as respondents. This study was conducted in Kertosari Village, Banyuwangi Regency, Indonesia. The knowledge variable was grouped into three categories, namely good, fair, and poor. It belongs to good knowledge category if the total score of the questionnaire percentage score (P) > 85%, fair category if the total questionnaire percentage score (P) is 57-85%, poor category if the total questionnaire percentage score is < 42 %. Regarding the anxiety variable, it was also categorized into three categories, namely mild, moderate, and severe. It belongs to be mild anxiety if the total value of the percentage score of the questionnaire is 7-23%, moderate anxiety if the total value of the percentage score of the questionnaire is 30-53%, severe anxiety if the total value of the questionnaire percentage score is 61-100%. The analysis used univariate and bivariate, with statistical test using Chi Square test.

RESULTS AND DISCUSSION

Univariate Analysis

Table 1

<table>
<thead>
<tr>
<th>Pregnant Women’s Knowledge</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Good</td>
<td>4</td>
<td>11%</td>
</tr>
<tr>
<td>Fair</td>
<td>12</td>
<td>34%</td>
</tr>
<tr>
<td>Poor</td>
<td>19</td>
<td>54%</td>
</tr>
</tbody>
</table>

Based on table 1, the distribution of the frequency of pregnant women’s knowledge about Covid-19 is still in the poor category, which is 19 respondents (54%).

Table 2

<table>
<thead>
<tr>
<th>Pregnant Women’s Anxiety</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mild</td>
<td>6</td>
<td>17%</td>
</tr>
<tr>
<td>Moderate</td>
<td>8</td>
<td>23%</td>
</tr>
<tr>
<td>Severe</td>
<td>21</td>
<td>60%</td>
</tr>
</tbody>
</table>

Based on table 2, the distribution of frequency of pregnant women’s anxiety in dealing with the Covid-19 pandemic is still in the heavy category in which there are 21 respondents (60%).
Table 3

The Relationship of Pregnant Women's Knowledge about Covid-19 and Pregnant Women's Anxiety in Dealing with Covid-19 Pandemic

<table>
<thead>
<tr>
<th>Knowledge</th>
<th>Pregnant Women's Anxiety</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mild</td>
<td>Moderate</td>
</tr>
<tr>
<td>Good</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>% of Total</td>
<td>8.6%</td>
<td>2.9%</td>
</tr>
<tr>
<td>Fair</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>% of Total</td>
<td>5.7%</td>
<td>8.6%</td>
</tr>
<tr>
<td>Poor</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>% of Total</td>
<td>2.9%</td>
<td>11.4%</td>
</tr>
<tr>
<td>Total</td>
<td>6</td>
<td>8</td>
</tr>
<tr>
<td>% of Total</td>
<td>17.1%</td>
<td>22.9%</td>
</tr>
</tbody>
</table>

Chi-Square Tests

<table>
<thead>
<tr>
<th></th>
<th>Value</th>
<th>df</th>
<th>Asymptotic Significance (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>12.434a</td>
<td>4</td>
<td>.014</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>11.798</td>
<td>4</td>
<td>.19</td>
</tr>
<tr>
<td>Linear-by-Linear Association</td>
<td>9.137</td>
<td>1</td>
<td>.003</td>
</tr>
<tr>
<td>N of Valid Cases</td>
<td>35</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. 7 cells (77.8%) have expected count less than 5. The minimum expected count is 69.

The results of the analysis of the total score of respondents' knowledge were included in the poor category, and the results of the respondents' anxiety were obtained in the severe category, with a value of \( X^2 \) arithmetic = 12,434 and \( df = 4 \) with a significance level = 0.014 or 1.4%. The value of \( X^2 \) table = 9,488, then there was a significant effect on good, fair, poor knowledge on mild, moderate, severe anxiety.

DISCUSSION

Pregnant Women's Knowledge about the Covid-19 Pandemic

Based on the frequency distribution of pregnant women's knowledge about Covid-19, it was categorized into the poor category, which is 19 respondents (54%). This is because pregnant women still have less understanding about Covid-19 pandemic, so it has an impact on anxiety about their pregnancy. As a result, many pregnant women do not want to have their pregnancy checked regularly at the nearest public health centers.

The results of this study are in line with a study conducted by Verawati (2021) showing that at the Tlogosari Wetan public health center Semarang there were 22 pregnant women who have poor knowledge about Covid-19 and 18 pregnant women who have sufficient knowledge about covid-19 pandemic. This was because since the pandemic there has been a policy of limiting contact between pregnant women and midwives, so that midwives were less than optimal in providing counseling regarding Covid-19, as well as a lot of hoax information that has not been confirmed to be true. Ignorance can cause anxiety, and knowledge can be used to overcome problems that occur. The low level of pregnant women's knowledge about Covid-19 will lead to a lack of knowledge possessed by pregnant women, so that pregnant women are prone to experiencing anxiety (Verawati, 2021).

There are still many pregnant women who have less knowledge due to access to information that is not obtained properly which results in increased anxiety in pregnant women during COVID-19 in the work area of Poskesdes Central Mantangai Kapuas Regency. (Apriana, 2021)

Pregnant Women’s Anxiety in Dealing with Covid-19 Pandemic

The distribution of frequency of pregnant women’s in dealing with the Covid-19 pandemic was categorized into severe category in which there were 21 respondents (60%). This is due to the lack of socialization to pregnant women regarding the procedures of antenatal care during the Covid-19 pandemic, so there are still many pregnant women who have fear or anxiety about contracting Covid-19 when carrying out a pregnancy check at the nearest
public health centers.

It is in line with a study conducted by Verawati (2021) showing that at the public health center in Tlogosari Wetan Semarang there were 21 pregnant women experiencing a mild level of anxiety and 19 pregnant women were not anxious. This is because pregnant women receive family support in which pregnant women feel they are not alone in dealing with their pregnancy and there are families and husbands who always support the pregnant woman so that she feels calmer during her pregnancy. In addition, to reduce the anxiety, it can be done by providing complete information to pregnant women during antenatal care related to maintaining health in their pregnancy during the Covid-19 pandemic, such as signs or symptoms, prognosis, treatment methods, access to fast and appropriate services, as well as health protocol procedures that must be practiced in everyday life. By having good knowledge, pregnant women will not have anxiety and stress in pregnancy which can affect the health of the mother and the fetus. Good knowledge of midwives in providing health services for Covid-19 pandemic patients 19 will give a good mental effect and prevent them from experiencing a bad level of anxiety (Verawati, 2021). In addition, a study conducted on the same topic under study showed that the anxiety experienced by pregnant women also affected ANC visits during the covid-19 pandemic, and this could be shown by the results of statistical tests showing $p = 0.011$ (Natalia, 2021).

Based on the results of literature review studies conducted, it can be concluded that the COVID-19 pandemic has had a significant impact on various aspects of life, including increasing the anxiety in pregnant women. Anxiety felt by pregnant women is related to restrictions on outdoor physical activity, economic decline, and the possibility of themselves and the baby to be born having COVID-19 because they will have contact with health workers who are at high risk of contracting or transmitting COVID-19. By knowing the anxiety rate of pregnant women during the pandemic, related parties can make efforts to reduce anxiety in pregnant women in order to improve the health status of the community (Aththohiroh, 2021).

The Relationship of Pregnant Women’s Knowledge and Their Anxiety in Dealing the Covid-19 Pandemic.

The results of the analysis of the total score of respondents’ knowledge were included in the poor category, and the results of the respondents’ anxiety obtained were categorized into the severe category, with a value of $X^2$ arithmetic = 12,434 and $df = 4$ with a significance level = 0.014 or 1.4%. The value of $X^2$ table = 9.488, then there was a significant effect of good, fair, and poor knowledge on mild, moderate, severe anxiety. The lower the knowledge score of pregnant women regarding the Covid-19 pandemic is, it will have an impact on the higher anxiety scores of pregnant women in dealing with the Covid-19 pandemic, which in turn will affect the compliance of pregnant women in carrying out pregnancy checks at the nearest public health centers.

Based on the results of a study conducted by Verawati (2021) at the Tlogosari Wetan public health center in Semarang, not all pregnant women had anxiety in dealing with the Covid-19 pandemic. This is because they believe that pregnant women can be protected from Covid-19 by maintaining health, consuming balanced nutrition, getting enough rest, maintaining body hygiene by washing hands in the right way, not going out of the house or going to the crowd unless there is an urgent need, shopping for necessities for a week, and doing worship at home. In addition, when carrying out ANC checks they apply health protocols such as maintaining a minimum distance of 1 meter, wearing a mask, checking temperature, wash hands before and after the action, and minimizing communication between patients.

It is in line with the results of a study conducted by Nugraheni (2021) at Komplementer Cinta Bunda School showing that if pregnant women in Indonesia have good knowledge about COVID-19, the knowledge possessed by pregnant women can reduce the level of maternal anxiety, so that mothers have motivation to come to health workers for examinations.

CONCLUSIONS

The purpose of this study was to determine the relationship between pregnant women’s knowledge about Covid-19 with their anxiety during the Covid-19 pandemic. Based on the results of this study, it could be concluded that there were many pregnant women who do not receive socialization about the Covid-19 pandemic and the procedures of pregnancy checks during the Covid-19 pandemic that eventually led the pregnant women to feel considerable anxiety about their pregnancy during the Covid-19 pandemic. Anxiety experienced by pregnant women included anxiety about contracting the Covid-19 virus which would affect pregnancy and the health of the baby in the womb. Then, it had an effect on the reluctance of pregnant women to carry out routine pregnancy checks to the nearest public health center, so that this would affect the...
efforts of early detection and prevention of high risk contracting covid-19 virus in pregnant women.

SUGGESTIONS
The efforts to overcome the condition in which pregnant women have poor knowledge about covid-19 pandemic and have severe anxiety include providing continuous socialization of the management and procedures of pregnancy check-ups during the Covid-19 pandemic to all pregnant women by health cadres and the public in general. It is essential to provide counseling or assistance to pregnant women who experience anxiety, so that they can reduce their anxiety and want to have their pregnancy checked regularly at the nearest public health centers or by midwives.

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