Original Research

Differences In Pregnancy Care Service Visits Before And During Covid 19 Pandemic In Midwifery Independent Practice

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ABSTRACT

Background: Pandemic COVID-19 has prompted the government to implement a social distancing policy. This also applies to pregnant mother to come to health workers unless there are signs of pregnancy. This study aims to know the influence of pregnancy services before and after the COVID-19 pandemic.

Methods: This is Mixed Method study with the sample was a midwife who carried out the Midwifery Independent Practice or “Praktek Madiri Bidan” (PMB) in Sragen Regency, Central Java Province. In-depth interviews were conducted with 10 informants. Statistical test using Paired T test, qualitative data using transcription and categorization

Results: The average number of visits to maternity care at PMB was 117.0 (21.83) visits per month in the two months prior to the COVID-19 pandemic, only 67.6 (7.63) monthly visits for two months during COVID 19 pandemic. Obtained p value 0.000 which means there is a difference in Pregnancy Care Service Visits before and during the COVID 19 pandemic at PMB Sragen Regency, Central Java. There are two themes in the results of the qualitative study, namely the anxiety of midwives in providing midwifery services during the COVID-19 pandemic and the Protocol for Pregnancy Care Services during the COVID-19 Pandemic.

Conclusions: There are differences in pregnancy services during the COVID-19 pandemic. The government is expected to be able to socialize technical guidelines for pregnant women in accessing services on pregnancy and prevention of COVID-19.

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INTRODUCTION

The Covid-19 pandemic has spread massively around the world due to Coronavirus 2 (SARS-Cov-2). This creates a health emergency in the health facility. According to reports on March 16, 2020 there were more than 180,000 cases of COVID-19 that occurred worldwide, where around 7000 people died because of the
Based on data from Covid.go.id (2020), Covid cases in Indonesia until June 10 have reached 37420 cases. In Central Java, the incidence of Covid was 901 cases.

Increasing Covid-19 cases in Indonesia can affect vulnerable groups, including pregnant mothers and the elderly. Pregnant mothers are vulnerable group to be infected with COVID-19 because it can cause death due to severe respiratory system disorders. The results of the study in China stated that 9 mothers who pregnant with COVID-19, 7 peoples died, 1 person was critically ill on a ventilator and 1 person recovered but had to undergo treatment until the study ended. This shows that Covid-19 is a serious problem (Hantoushzadeh et al., 2020).

The risk of morbidity and mortality for pregnant women can increased during the Covid pandemic due to changes in the mother's immune system so that she is more susceptible to exposure to the corona virus. In addition, pregnant women also experience increased anxiety when they are about to carry out pregnancy checks at health facilities. (Liu et al., 2020). And now, pregnancy classes have been canceled until an undetermined time (Kemenkes, 2020), so that many pregnant women do not make pregnancy visits and do not get official information about pregnancy care during the Covid pandemic 19. Antenatal Care Services are still provided, however, government policies to postpone visits during pregnancy can have an impact on the number of pregnancy visits. This will have an impact on the quality of pregnancy care visits that apply 10 T to be limited.

There has been no research that discusses the visit to pregnancy care services in Indonesia or in Sragen Regency, therefore researchers are interested in conducting research on Pregnancy Care Services during the Covid-19 Pandemic. This study aims to know the influence of pregnancy services before and after the COVID-19 pandemic.

**MATERIALS AND METHOD**

This is a Mixed Method research with an explanatory sequential model using the quantitative (cross-sectional) method followed by qualitative (structured interviews). By combining two research methods, quantitative research methods can complement the shortcomings of qualitative and quantitative methods (Creswell, 2016). This research was conducted at PMB Sragen Regency, Central Java in June 2020 by taking secondary data for January, February, March, April and May 2020. The populations are 120 midwives who have PMB in Sragen Regency. Then qualitative data was taken from a quantitative sample of 10 midwives to conduct in-depth interviews, until the same sentence was found for each participant.

Qualitative sampling technique using snow ball sampling to obtain saturated data. The instrument used a questionnaire and data average of ANC visit before the pandemic period in Indonesia in the last two months, January and February 2020, and the average antenatal care visits were two months after the COVID-19 pandemic was announced, April and May 2020 and then an in-depth interview questionnaire about maternity care services in PMB using 10 T in pregnancy. Data for March 2020 was not used because it was a transition period before the announcement by the President of the Republic of Indonesia regarding the Covid 19 pandemic, namely March 2, 2020.

Data analysis used paired T test with alpha 0.05 and 95% confidence interval, and qualitative analysis using transcription, reduction, categorization, coding tables in building hypotheses and conclusions in this study.
RESULTS

The results of the study produced quantitative and qualitative data to determine Pregnancy Care Services before and after the COVID-19 pandemic. The following data are the characteristics of the age and length of work of midwives in PMB Sragen Regency, Central Java.

**Table 1.** Characteristics of age and length of work at PMB Sragen Regency, Central Java

<table>
<thead>
<tr>
<th>Variabel</th>
<th>Mean (SD)</th>
<th>Median</th>
<th>Minimum</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age (years)</td>
<td>47.5 (9.03)</td>
<td>48.0</td>
<td>32</td>
<td>67</td>
</tr>
<tr>
<td>Length of work (years)</td>
<td>23.9 (7.48)</td>
<td>23.74</td>
<td>10</td>
<td>43</td>
</tr>
</tbody>
</table>

Based on table 1, the average age of a midwife is 47.5 (9.03) years, with the oldest age being 67 years and the youngest being 32 years. Based on the length of work, it was found that PMB midwives had an average length of work of 23.9 (7.48) years with the longest time being 43 years and the shortest time being 10 years.

**Table 2.** Average Pregnancy Care Services two months before the COVID-19 pandemic in PMB Sragen, Central Java

<table>
<thead>
<tr>
<th>Variabel</th>
<th>Mean (SD)</th>
<th>Median</th>
<th>Minimum</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Before the Covid Pandemic 19</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total January</td>
<td>123.3 (30.4)</td>
<td>110.0</td>
<td>76</td>
<td>211</td>
</tr>
<tr>
<td>Trimester 1</td>
<td>25.2 (6.7)</td>
<td>24.0</td>
<td>14</td>
<td>42</td>
</tr>
<tr>
<td>Trimester 2</td>
<td>51.3 (19.8)</td>
<td>45.0</td>
<td>23</td>
<td>91</td>
</tr>
<tr>
<td>Trimester 3</td>
<td>46.7 (15.8)</td>
<td>42.0</td>
<td>25</td>
<td>94</td>
</tr>
<tr>
<td>Total February</td>
<td>110.0 (22.55)</td>
<td>106.0</td>
<td>74</td>
<td>163</td>
</tr>
<tr>
<td>Trimester 1</td>
<td>25.8 (26.0)</td>
<td>26.0</td>
<td>12</td>
<td>49</td>
</tr>
<tr>
<td>Trimester 2</td>
<td>43.7 (17.98)</td>
<td>39.0</td>
<td>23</td>
<td>89</td>
</tr>
<tr>
<td>Trimester 3</td>
<td>40.3 (13.61)</td>
<td>40.0</td>
<td>24</td>
<td>79</td>
</tr>
</tbody>
</table>

Based on table 2, it was found that the average visits to maternity care at PMB were 117.0 (21.83) visits each month in two months before the Covid-19 pandemic. On average in January 123.3 (30.4) visits and February 110.0 (22.55).

**Table 3.** The Average Pregnancy Care Services two months during after COVID 19 Pandemic was announced in PMB Sragen Regency, Central Java

<table>
<thead>
<tr>
<th>Variabel</th>
<th>Mean (SD)</th>
<th>Median</th>
<th>Minimum</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>After Pandemic COVID 19</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>April</td>
<td>55.3 (9.58)</td>
<td>55.0</td>
<td>37</td>
<td>81</td>
</tr>
<tr>
<td>Trimester 1</td>
<td>5.5 (3.64)</td>
<td>5.0</td>
<td>1</td>
<td>18</td>
</tr>
<tr>
<td>Trimester 2</td>
<td>21.4 (5.32)</td>
<td>21.0</td>
<td>10</td>
<td>32</td>
</tr>
<tr>
<td>Trimester 3</td>
<td>28.3 (7.44)</td>
<td>28.0</td>
<td>21</td>
<td>51</td>
</tr>
<tr>
<td>May</td>
<td>79.4 (8.5)</td>
<td>79.0</td>
<td>66</td>
<td>103</td>
</tr>
<tr>
<td>Trimester 1</td>
<td>13.3 (4.67)</td>
<td>12.0</td>
<td>5</td>
<td>21</td>
</tr>
<tr>
<td>Trimester 2</td>
<td>26.7 (5.94)</td>
<td>25.0</td>
<td>20</td>
<td>48</td>
</tr>
<tr>
<td>Trimester 3</td>
<td>39.7 (6.66)</td>
<td>40.0</td>
<td>24</td>
<td>53</td>
</tr>
</tbody>
</table>
Based on table 5.3, it was found that the average pregnancy care service visits at PMB were 67.6 (7.63) visits per month in two months during the COVID-19 pandemic. On average in April 55.3 (9.58) visits and in May 110.0 (79.4) visits.

Table 4. The Influence of Pregnancy Care Service Visits before and during the COVID 19 pandemic at PMB Sragen Regency, Central Java

<table>
<thead>
<tr>
<th>Difference</th>
<th>Mean Difference (SD)</th>
<th>t</th>
<th>p value</th>
<th>95% confidence interval</th>
</tr>
</thead>
<tbody>
<tr>
<td>-49.44 (21.17)</td>
<td>-12.13</td>
<td>0.000</td>
<td>-57.823 s.d -41.066</td>
<td></td>
</tr>
</tbody>
</table>

Based on the table 4, it was found that the number of visits decreased -49.44 (21.17) during the COVID-19 pandemic. The statistical test results p value 0.000, which mean there is a difference in Pregnancy Care Service Visits before and during the COVID-19 pandemic at PMB, Sragen Regency, Central Java. The researchers found two themes in the results of the qualitative study, there are the midwife's anxiety in providing midwifery services during the COVID-19 pandemic and the Pregnancy Care Service Protocol during the COVID 19 Pandemic.

Anxiety of Midwives in providing ANC during the COVID-19 Pandemic.

Based on the research, it was found that all midwives were anxious and worried about maternity services during pandemic COVID-19. The main reasons midwives are worried is that invisible viruses can be at risk of transmitting from patient to patient through equipment, transmission in the waiting room and transmission of shared tools such as stethoscopes, leanec, medline etc. In addition, of course, midwives also feel afraid of contracting because they are in direct contact with patients. Anxiety that attracts the attention of midwives is the presence of People Without Symptoms (OTG) who can put the risk of transmitting the virus to other people without realizing it.

Another concern is that due to the decrease in the number of visits by midwives, it is difficult to monitor pregnant women and monitor the knowledge of pregnant mother about ANC.

This is consistent with the results of the midwife's similar transcriptions:

“Yes, of course I am worried, I am afraid because pregnant women are vulnerable to COVID 19, there are patients who are infected with corona and then they go to PMB, I even infect other patients. I am also afraid of contracting it, especially when I meet vulnerable pregnant women”

This result is also in line with the conversations of other respondents:

“I am worried that the virus can pass on through shared instruments such as sphygmomanometer, stethoscope, leanec, and medline. Honestly, I want this epidemic to end quickly because it's a shame if the pregnant woman is infected with a high risk of death, and if I am the one who is infected it can actually infect other patients”

There are transcripts of anxiety about OTG were delivered by 4 midwives:

“Honestly, mam, I am worried that the patient or I will experience OTG doesn't feel like that when I am infected. We can still go everywhere, even though the virus spreads in the body we don't know if it's infectious”

The transcription of reduced visit anxiety was delivered by 5 midwives, there are:
“So because this pandemic happened suddenly, then pregnant women must be afraid that visits will decrease. The problem that I’m worried about is that we don’t have any preparations for the group data form. So I don’t know how pregnant women get health information about their pregnancy. Hopefully, pregnant women don’t read hoaxes on the internet about pregnancy”.

Maternity care services protocol during the COVID-19 Pandemic

The results of the interviews with 10 midwives at PMB stated that all midwives used health protocols during the COVID-19 pandemic. Some of the protocols used are the protocol for patients and the protocol for midwives:

The protocols for patients carried out by midwives are: Checking the temperature before entering PMB, midwives provide hand washing for every visitor who comes at the PMB entrance, must wear a mask, sit 1 meter apart, there is an appeal not to chat in the waiting room:

“Yes, as you can see at PMB when you enter, immediately check the temperature, wash your hands with soap, this chair give you distance, so I should buy an extra chair even though the patient is reduced, it says "Mandatory Mask Area” another midwife said:

“I prepared equipment to prevent infection, such as washing water and soap, added disinfectant in front of the examination room, before entering, this is a 1 meter criss-crossed chair and no writing so don’t chat in the waiting room to keep the virus out of the mouth”

The protocol for midwives themselves is applied by washing hands orderly, using a hand-scone during the examination, using a medical mask, using a face shield. always disinfect with a disinfectant solution on shared equipment.

These results are in accordance with the transcript:

“For healthy patients, I also continue to use complete protocols, such as washing hands, using a hand-scone, mandatory medical masks, using a face shield too, with these tools I keep getting infected if I want to use them again, afraid of the virus”

DISCUSSION

The decline score was found to decrease the number of visits -49.44 (21.17) visits during the COVID-19 pandemic. The statistical test results obtained P value 0.000, which means there is a difference in the Visit of Pregnancy Care Services before and during the COVID-19 pandemic at PMB Sragen Regency, Central Java. This result is consistent with the government's recommendation to postpone pregnancy check-ups to health personnel if there are no signs of danger in pregnancy (KEMENKES, 2020).

In line with Nurislaminingsih's research (2020), the decrease in visits of pregnant women can affect the knowledge of pregnant women. This is because pregnant women are considered very vulnerable to corona virus attacks. They are considered to have less stable immune conditions than women who are not pregnant. The results showed that COVID-19 pneumonia in pregnant women included fever and cough. It is important for pregnant women to know the prevention of COVID-19 even though they do not meet in person and get it through telemedicine.

According to Pradana et al, (2020) social distancing have been proven effective in reducing transmission of the COVID-19 disease. Including this also applies to pregnant women, so as to limit themselves from being exposed to the outside environment, let
alone traveling to pandemic areas. One risk of pregnant women contracting COVID-19 is during a pregnancy check-up visit at a midwifery clinic or hospital. So that pregnant women must increase their awareness by continuing to be disciplined in using PPE. Pregnant women can limit visits to a midwifery clinic or hospital by conducting online consultations, actively checking for signs and dangers during pregnancy, and only making visits when things are found to be worrying.

Currently there are not many theories about COVID-19 in midwifery care services, especially in Indonesia. The science of COVID-19 itself is still developing due to the changing nature of the virus. This is because COVID-19 is a new infection case and is still being studied a lot. Until now, research to recognize COVID-19 is still ongoing until a definite theory is found about the COVID-19 virus.

This is supported by the results of interviews because there is a decrease in the number of visits by midwives, making it difficult to monitor pregnant women and monitor the knowledge of pregnant women about pregnancy care. In line with systematic review (Della Gatta et al., 2020) pregnant women should know about the dangers of COVID-19 to prevent infection with the virus. Pregnant women who are infected with the virus can cause severe respiratory infections to death. Pregnant women and their fetuses denote a high-risk population during disease outbreak transmission. Based on the results of the study, 55 pregnant women infected with Covid-19 and 46 babies who had Covid-19 were found. However, there is no evidence of vertical transmission.

Physiological and mechanical changes during pregnancy can increase the risk of infection in general. In addition, the dominance of sister T-helper 2 (Th2), which functions to protect the fetus, makes the mother more susceptible to infection (Dashraath et al., 2020). In the interview, the main reason for the midwife was that they were worried because an invisible virus could be at risk of transmitting from patient to patient through equipment, transmission in the waiting room and transmission of shared tools such as stethoscopes, leanec, medline etc. In addition, of course, midwives also feel afraid of contracting because they are in direct contact with patients. Anxiety that attracts the attention of midwives is the presence of People Without Symptoms (OTG) who can put the risk of transmitting the virus to other people without realizing it.

The results of the protocol interviews for patients conducted by the midwife were. Checking the temperature before entering PMB, midwives provided hand washing for every visitor who came at the entrance to PMB, obliged to use a mask, seat at a distance of 1 meter, there was an appeal not to chat in the room Wait. The protocol for midwives themselves is implemented by disinfecting PMB, washing hands orderly, using a hand-scone during examination, using a medical mask, using a face shield. always disinfect with a disinfectant solution on shared equipment.

The research by Athena et al., (2020) conclude that disinfection activities are carried out in health services with the aim of decontaminating bacteria or viruses from surfaces / objects, so the disinfectants used are usually destructive chemicals. Basically, all disinfectants with chemically active ingredients are toxic, which can pose a risk to both the environment and human health if not used according to instructions. The evidence of the effect of disinfectant exposure on health, from the results of research in various countries, is still limited to the impact on workers.

According to government regulations regarding first-level health facilities (Puskesmas, Bidan Praktik Mandiri) and referral health facilities (COVID-19 Referral
Hospital, PONEK capable hospital, RSIA) in providing maternal and child health services with or without COVID-19 infection status. It is recommended that the Puskesmas rearrange the MCH service facilities to separate them from the Puskesmas Main Building so that MCH Patients do not mix with General Patients (Satgas COVID 19,2020). Supported by research in Yogyakarta, the family planning service protocol has been carried out in the era of the COVID-19 pandemic as many as 78.7% of midwives, namely online and services using standard personal protective equipment.

There was a decline in family planning services by midwives in midwife practices in Yogyakarta during the pandemic COVID-19 from February to April 2020 by 13.8%. Midwives are supposed to increase postpartum family planning services, especially the IUD. Midwives should utilize online media to promote Family Planning programs. Another trick can be initiated by BKKBN, such as education on delaying pregnancy during the COVID-19 pandemic and provide free services for productive couples about family planning, so they can routinely control the use of acceptors (Herawati et al.,2020).

In the opinion of the researchers, the decrease in the number of pregnancy visits was due to the policy to postpone pregnancy visits unless there were danger signs of pregnancy. Midwives in carrying out maternity care are worried about the COVID-19 pandemic. Midwives have also implemented health protocols in midwifery care services for pregnant women.

The limitation in this study is because it has not discussed the quality of Pregnancy Care Services during the COVID-19 pandemic, so that the quality of service and implementation of guidelines for COVID-19 prevention in PMB cannot be described. In addition, researchers also have not discussed pregnancy care for pregnant women during the COVID-19 pandemic and how to prevent COVID-19 in pregnant women using direct information or telemedicine.

CONCLUSION

There are differences in Pregnancy Care Service Visits before and during the COVID-19 pandemic at PMB Sragen Regency, Central Java with a decrease in the number of visits -49.44 (21.17) visits during the COVID-19 pandemic. According to the qualitative results, it was found that midwives were worried about the transmission of COVID-19. PMB applies the COVID-19 prevention protocol. The quality of ANC services is still implemented in accordance with the COVID-19 protocol. Health education for pregnant women is implemented directly and monitored by telemedicine.

It is suggested that midwives can monitor the health of pregnant women by using more structured telemedicine and create telemedicine groups to increase interaction among pregnant women. This is associated with the openness of pregnant women to discuss pregnancy problems so that pregnancy problems can be quickly addressed during the COVID-19 pandemic

ACKNOWLEDGEMENT

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REFERENCES


