

Maternal Characteristics for Attending Antenatal Care Facilities During COVID-19

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Abstract

Limited understanding of the new emerging infectious disease during COVID-19 could cause distress among pregnant women. During the public health emergency, the health status, as well as how pregnant women reacted to the situation, where and how they obtained antenatal care information, are to be understood. This study contributed to determining maternal characteristics by measuring knowledge and exploring approaches to visiting antenatal care among pregnant women during COVID-19 in Indonesia. We conducted a questionnaire survey to assess the knowledge level about antenatal care among pregnant women, and collected information on their approaches to visiting antenatal care facilities during the COVID-19. A total of 162 women from 5 regions in Bandarlampung participated in the survey. We found that maternal characteristics were age 59.26% (20-30 yr); education level 46.3% (Junior high school); ethnic 36.4% (Javanese); paritas 45.1% (primipara); level of knowledge 53% (pretty good). Visiting antenatal facilities during COVID-19 should be strengthened to support pregnant women reach their needs. Developing and disseminating antenatal care content for pregnant women on how to cope in an emergency and major disease outbreak by health professional institutions via social media platforms could be an effective way.

Keywords: antenatal care; pregnant; COVID-19

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1. Introduction

Access to healthcare changed during the period of the coronavirus disease 2020 (COVID-19) outbreak. Many functions in Indonesian society closed down from March (lockdown) and began to reopen in April 2020. All public employees were sent home from work, and all private employers were urged to have as many employees as possible working from home. The way we socialised with each other changed due to the COVID-19 pandemic in order to avoid getting and spreading the infection. These changes affected people differently depending on their life situation, use of healthcare services, health condition, and perception of risk (Overbeck et al., 2020)

Evidence shows that COVID-19 caused more than 2.5 million deaths globally. The risk of dying was higher among older adults and people who had chronic medical related disease such as type 2 diabetes mellitus, lung cancer, heart diseases, asthma, and immunocompromised patients. The most vulnerable population group population are pregnant women, and they are at a high risk of developing Covid-19 associated

adverse pregnancy outcomes, such as preterm births, undergoing caesarean section, intensive care unit (ICU) admission, mechanical ventilation, and death (Bankar & Ghosh, 2022).

However, during the COVID-19 pandemic, pregnant women were advised not to visit sites of ANC check-ups in the months of April and May 2020. Besides the unavailability of check-up facilities, there were other services, chiefly home visits to pregnant women and distribution of Take-Home Ration (THR) that also proved inaccessible. Supply-side barriers to access included disruption in the transportation of supplements like iron and folic acid (IFA), zinc, and calcium tablets, burden on health workers of Covid-19-related tasks, which reduced their availability for maternal healthcare service delivery. On the demand side, key barriers included inaccurate or incomplete information about service provision, fear of contracting Covid-19 due to stepping out of the home, widespread loss of livelihoods, restrictions on mobility, etc (Bankar & Ghosh, 2022).

One in eight antenatal services during covid-19 started was a telehealth consultation. The

average number of telehealth consultations per woman increased by 0.6 (0.7–1.3, adjusted incidence rate ratio [IRR] = 1.71, $p < 0.001$), while face-to-face visits decreased by 1.4 (10.6–9.2, adjusted IRR = 0.87, $p < 0.001$), resulting in an overall reduction of 0.8 (11.3–10.5, $p < 0.001$) services (7.1%). The increase in telehealth consultations was evident in all groups, but was greatest among women attending the smallest hospital, younger women, and Indigenous women. Most groups of women experienced a reduction in the number of face-to-face and total consultations, but the greatest reductions were among women who attended the largest hospital, received shared care, were older than 35 years, or had conceived through *in vitro* fertilization (Trinh et al., 2022).

In this situation, the Indonesian Government's policy is for the restriction of maternal and neonatal services. The decrease in knowledge about antenatal care during Covid-19 period among mothers. Dinas Kesehatan Provinsi Lampung reported that 45% cases of prenatal death in 2021 were caused by Covid-19 viruses (Al Farizi & Harmawan, 2023). The largest number of pregnant mothers in Bandarlampung is in Puskesmas Panjang were 1,476, followed by Puskesmas Sukaraja, were 1127 pregnant women.

During covid-19 period, visiting antenatal care facilities by pregnant women had decreased. Only twice in two trimesters. Increasing of anxiety in covid-19 period was psychological problem in pregnancy that can stimulate other factors, such as age, work, and level of education, which can cause a decrease of willingness of mother to check their pregnancy. Knowledge is one of predisposition factors that important to change behavior and strengthen their motivation to people behavior (Riberu et al., 2023).

The results of research conducted by (Simbolon & Wahyuni, 2020) concluded that the knowledge was associated with antenatal care in Puskesmas Dalu Sepuluh Tanjung Morawa. According to a survey that was carried out in Puskesmas Sukaraja in the years 2019. It was found that 70% of pregnant women did not know about antenatal care in covid 19 period; they felt afraid and anxious about the baby's condition.

On the basis of the background information presented above, this paper aimed to describe pregnant women's characteristics for attending antenatal care facilities in covid-19 period.

2. Method

This research was carried out descriptively with a quantitative approach. The population of this research consisted of 272 of pregnant women in Sukaraja Public Health Center, Bandarlampung, and proportional stratified random sampling was employed to recruits patients who met the

following inclusion criteria: pregnant women in first trimester, able to communicate well and agreed to participate in this study. The sample comprised 162 respondents, and the research was conducted from April to July 2023. The research instrument used were demographics questionnaire and a knowledge questionnaire, which consisted of 23 questions about antenatal care (Karmila & Masruroh, 2021)

The data were collected directly from respondents. The study variables were maternal characteristics (age, level of education, ethnicity, work, parity) and level of knowledge. The data analysis used a frequency distribution test. This research was deemed ethically acceptable by the Health Research Ethics Committee of Malahayati University (Certificate no. 3375/EC/KEP-UNMAL/IV/2023). The respondents provided informed consent before the data collection, and their names were anonymized for the study. Pregnant women's characteristics for attending antenatal care facilities in covid 19 period.

3. Results and Discussion

As shown in Table 1, this study found that the majority of respondent in the age from 20 – 30 years old (59.2%), mostly had 46.3% junior high school level of education, Javanese were the most ethnic group that participated (36.4%), worked as housewives (51.3%), and 45.1% were primipara.

Based on the result of Figure 1, it was revealed that the majority of pregnant women in Sukaraja Public Health Center have pretty good knowledge (53%) about antenatal care during covid 19. Many women were anxious about contracting the coronavirus and feared going to prenatal checks, with some pregnant women staying away from the services altogether.

In addition, the fear of spreading the disease may lead health workers to deny mothers the service. Pregnant women have been reported to have experienced increased anxiety as a result of COVID-19. Similarly, a survey conducted in Italy among 100 pregnant women showed there was a fear of visiting hospitals for childbirth because they were scared of being infected themselves or feared vertical transmission (Freytas & Tamura, 2020).

Most of respondent in this study were aged 20-30 years (59,2%). This might be, as the age of the mother increases, they might have a better knowledge, understanding, and experience of pregnancy and pregnancy-related complications, which in turn increases the utilization of antenatal care services (Ross-Davie et al., 2020). Age influence mother to utilize antenatal care within the age group 25-34 years, and women aged 35 years and above 23 years more likely to adequately utilize antenatal care compared to women aged group 15-24 (Adedokun & Yaya, 2020) In line with

this study that majority of women attending antenatal care were under 30 years old.

Table 1. Respondents' characteristics

Characteristics	f	%
Age		
20-30	96	59.2
31-40	57	35.5
> 40	9	5.3
Level education		
Elementary School	11	6.8
Junior High School	75	46.3
Senior High School	43	26.5
College	33	20.4
Ethnic group		
Javanese	59	36.4
Lampung tribe	52	32.1
Sundanese	51	31.5
Work		
Housewife	83	51.3
Trader	29	17.9
Privat Employees	38	23.4
Government Employees	12	7.4
Paritas		
Primipara	73	45.1
Multipara	63	38.9
Grandepara	26	16.0
Total	162	100.0

Our results show that respondents mostly had finished junior high school, 46,3% in'. The result of Ali's 2018 study also showed that mothers who have secondary education and above were more likely to utilize antenatal care services than mothers who have no formal education. Previous studies done in developing countries had found that a higher educational level was highly associated with better antenatal care service utilization. This might be explained as women having better educational status are capable of identifying danger signs and easily understand the bad consequences of not attending antenatal care services (Addisu et al., 2024).

In this case, pregnant women who have a minimum level of high school education can be said to already have a secondary education, where mothers can better understand and get information about aspects of antenatal care, although this is not obtained in formal education, but can be obtained by other means, such as reading a book about pregnancy or the MCH book. Education is needed to get information, so that the higher a person's education is, the more their knowledge increases. A

person's education will affect the absorption or reception of incoming information, let alone information that is new to the respondent, including regarding antenatal care (Apriani et al., 2019)

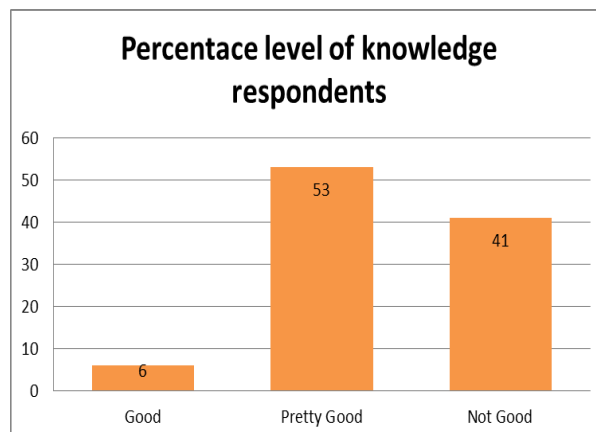


Figure 1. Responen level of knowledge about Antenatal care during COVID-19

In the current study, Javanese were the most ethnic group (36,4%), followed by Lampung tribe (32,1%) and Sundanese (31,5%). Javanese are among Indonesia's most populous ethnic groups. In daily life, culture influences people's conduct, particularly the custom of maternal care. In everyday life, the Javanese are inseparable from the laws and traditions they continue to observe and believe in (Zulkifli et al., 2023). Regarding cultural influence, Javanese people are more active in visiting antenatal care facilities than others.

This study found that the majority respondent work as housewives (51,3%). The study found that women occupation (a housewife) had no association with the utilization of antenatal care. In line with the result of (Paudel et al., 2020). It shows that women who were housewives as well as working both had almost equal antenatal visits. Since in the pandemic period the antenatal care service utilization was found to be low, this might be due to movement restrictions, fear of infection, and economic pressure, greater disruptions to health systems due to workforce and supply chain issues, and the repurposing of health workers.

The role of work in influencing the level of knowledge, Notoatmodjo (2014) said that a relatively sufficient economic situation would provide the facilities needed to gain knowledge. The results of the study by Apriani et al (2019) show that mothers who work as entrepreneurs have sufficient income themselves, so that pregnant women can obtain information about more optimal antenatal care visits in accordance with the wishes of the mother, for example choosing a place for pregnancy examinations that mothers feel can satisfy both in terms of the services and counseling provided by health workers, it can also be obtained

from pregnancy books that are bought in stores. And the higher the status of one's work, the better the knowledge they have.

After variable women occupation, we will continue discuss the primipara who sat in the first (45,1%) who participating this study. Primigravida pregnant women who visit antenatal care at obstetricians and midwives in Padang City, amounting to 73.8%, have a high level of knowledge (Apriani et al., 2019).

In the current study, the majority of pregnant women in Sukaraja Public Health Center have pretty good knowledge (53%). About antenatal care during covid 19. From the results of the study, Apriani (2019) found that pregnant women who attend antenatal visits to midwives and obstetricians have a good level of knowledge, with a total of 73.8%, and only 26.2% of pregnant women have a low level of knowledge ($p > 0.05$). Statistically, there is no difference in the level of knowledge between pregnant women who make antenatal visits to obstetricians and midwives in the city of Padang. According to Notoatmodjo (2014). Knowledge is the result of tofu that occurs after someone senses a certain object. Knowledge is influenced by education, occupation, age, and information sources.

The situation is harsher in developing countries due to the lack of proper infrastructure and resources. This might be due to health system collapse or intentional choices made in responding to the pandemic, workforce reduction, access reduction, and also some health facilities' restricted number of ANC visits due to fear of the pregnant women contracting coronavirus (Mohanty, 2020)

4. Conclusions and Suggestions

The findings of this study showed that the pandemic reduced the utilization of antenatal care services among pregnant women in the study area. Thus, the age of the mother, level of education, ethnic group, work, paritas and level of knowledge of pregnant women were explained. Thus, efforts to enhance maternal health services should be recommended. Various information, education, and communication (IEC) materials will be produced to raise awareness regarding the protection of pregnant women during the covid-19.

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