



Antenatal Care Utilization during Covid-19 Pandemic among Pregnant Women in Tangerang City Indonesia

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Abstract

Background: The COVID-19 Pandemic has affected access, quality, and Maternal and Child Health (MCH) services coverage. This study aimed to analyze the factors associated with antenatal care service utilization among pregnant women in Tangerang City.

Methods: This was a cross-sectional study using the accidental sampling method. We recruited 171 pregnant women as respondents. Data were collected using a questionnaire and distributed via Google Forms. We performed univariate and bivariate analyses (Chi-Square with 95% CI).

Results: The study showed that the fear of COVID-19 (p -value = 0.050) and the availability of services (p -value = 0.047) were factors related to the utilization of antenatal care services.

Conclusion: The study concluded that only 61.4% of respondents had utilized antenatal care services during the COVID-19 pandemic. It is expected that health workers will continue to provide education as well as information through health promotion regarding pregnancy check-ups during the COVID-19 Pandemic to pregnant women.

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INTRODUCTION

The COVID-19 pandemic is a non-natural disaster caused by the SARS-CoV-2 outbreak which has impacted various things. The previous event similar to this current pandemic such as the SARS and MERS outbreaks that caused the death of pregnant women show the magnitude of the risk of the COVID-19 pandemic to pregnant women (Chen, et al., 2020). Changes in the physiological and immunological of the human body can increase the risk of pregnant women and their fetuses being infected by the virus (Kotlar, et al., 2021). Previous studies showed the risk of COVID-19 during pregnancy and childbirth (Krupa, et al., 2020).

The COVID-19 outbreak has significantly impacted access to and quality of maternal and child health services (MCH) (Kemenkes, 2020). For example, the situation in the Ethiopian General Hospital, where there has been a 10% decrease in pregnancy visits and health services for newborns during the COVID-19 outbreak may increase the risk of mortality (Tadesse, 2020).

One of the reasons that cause the decrease is the anxiety of being infected among pregnant women if they visit health facilities. The COVID-19 pandemic has also made delayed the classes for pregnant women and the provision of erratic service facilities and infrastructure (Kemenkes, 2020).

The previous study conducted about nutrition activities and antenatal care in several districts in Indonesia indicated that the COVID-19 pandemic caused a decrease in antenatal care (ANC) visit during the first and third trimester in several districts and cities, such as Maros (South Sulawesi), East Jakarta, Bandung Regency, and Bekasi Regency (Saputri, et al., 2020) (Banten, 2021).

The factors associated with the utilization of MCH services were age, residence, education, history of miscarriage, disruption of delivery services due to COVID-19, worries about COVID-19, and access to transportation (Tadesse, 2020). Furthermore, Cahyani (2020) revealed that the mother's occupation, family income, knowledge, accessibility, disease history, family support, and level of satisfaction were also related to ANC utilization. Other

studies have also found that ANC use is related to parity, gestational age, information from the media, service facilities, husbands' and health workers' support, access or distance factors, availability of services, and the role of midwives (Nurmawati & Indrawati, 2018) (Andriani, et al., 2019).

The high number of COVID-19 cases in Indonesia has raised concern and anxiety in society and the government (Abdullah, 2020). It was recorded that there were 12,246 confirmed cases of COVID-19 until July 12, 2021 in Tangerang City and 244 of them died (Banten, 2021). This situation has also increased the fear among pregnant women (Ifdil, et al., 2020).

Following the increasing number of COVID-19 cases, the Indonesian government has enforced a large-scale social restriction policy and requested that people stay at home to reduce the transmission of COVID-19. The policy has affected Maternal and Child health services (Herawati, et al., 2020). Thus, this study aimed to find out what factors related to the utilization of antenatal care services during the COVID-19 pandemic in Tangerang City.

Maternal and child mortality is one of the Indonesian government's biggest health problems; therefore, since 1997, the safe motherhood program through the "A Partnership and Family Approach" project was started in Indonesia (World Bank, 2022). Antenatal care is one of the pillars of safe motherhood. Therefore, in this case, health workers play a major role in improving maternal and child health services (Dewi, et al., 2014).

METHODS

This research used a cross-sectional study design. The population in this study was pregnant women who live in Tangerang City, Banten Province, Indonesia in 2021. The data were collected using Google Forms and questionnaires through telephone interviews from May to June 2021. We recruited 171 pregnant women as the respondents. The accidental sampling method was carried out to select the pregnant women who did ANC visits in the health facility during the period of study; Respondents who did not understand or did not have the media to fill out the google form and then interviewed by telephone.

The respondents were asked to answer the following questions: respondent's identity, use of antenatal care, fear of COVID-19, knowledge of antenatal care during the COVID-19 Pandemic, sources of information related to pregnancy and COVID-19, and the availability of ANC services. The component of ANC services is the measurement of body weight and height, blood pressure, upper arm circumference, fundal height, the immunization status of Tetanus Toxoid, receiving iron tablet supplement, nutritional status measurement, laboratory examination, and the examination of fetal heart rate. Two additional ANC services should be held during the COVID-19 pandemic, which is online screening for COVID-19 symptoms and antigen swab tests in addition, pregnant women were also asked whether there was support from their husbands and health workers.

The utilization of antenatal care in this study referred to the minimum standard frequency of visits during pregnancy per trimester. It should be done twice in the first trimester, once in the second trimester, and three times in the third trimester.

Univariate analysis was performed to describe factors related to antenatal care services, while bivariate analysis (Chi-square test) was carried out to determine the relationship between the determinant factors associated with antenatal care services during COVID-19.

The ethical approval of this research was obtained from the Research Ethics Committee of the Faculty of Health Sciences, UIN Syarif Hidayatullah Jakarta (Un.01/F.10/KP.01.1 / KE.SP/04.08. 020/2021).

RESULT AND DISCUSSION

Table 1 showed the characteristics of pregnant women who participated in the study. Based on the analysis, 94.7% of pregnant women aged 20-35 years and 45% of pregnant women had no work. We found that 17.5% of pregnant women had gestational age in the first trimester, 40.9% in the second trimester, and 41.5% in the third trimester. Among pregnant women, 47.4% of them had a fear of COVID-19. Meanwhile, 61.4% of them had good knowledge about antenatal care and 54.4% had the access to information in the

media. Furthermore, 84.8% of pregnant women stated that services were incomplete during the COVID-19 pandemic. Of the pregnant women who supported by their husbands were 71.3% while 52.6% of them said they received support from health workers. The result also reveals that 61.4% of pregnant women persisted in coming to health services for ANC visits during the COVID-19 pandemic.

Additional information can be seen in Table 2, where it is revealed that 53.1% of pregnant women who were afraid of COVID-19 continued to use health services during the COVID-19 Pandemic (P-value 0.050). Although they said the service was incomplete, 57.9% of pregnant women kept visiting the service to do ANC (P-value 0,047).

Due to fear of COVID-19, the decrease in ANC service activities during COVID-19 resulted in high maternal and under-five deaths (Ifdil, et al., 2020). The new guideline for ANC Service as an action for adaptation due to the COVID-19 pandemic has made confusion among pregnant women and health workers, resulting in the inability of the services provided (Zubaedah & Margaretha, 2020).

This study revealed that pregnant women who were not afraid of being infected with COVID-19 tend to keep coming to ANC service, even though they stated that ANC services were incomplete during the Pandemic.

The incompleteness of the ANC service occurs due to several factors, especially the mental health of workers who are afraid of being infected because of incomplete personal protective equipment, no specific treatment guidelines, and inadequate support from authorities (Abdullah, 2020) (Sari, et al., 2021) (Setiati & Azwar, 2020).

ANC performs to monitor the health of pregnant women for early detection of comorbidities and complications and determines whether the risk of pregnancy is high, doubtful, or low risk (Conrad, et al., 2012). Because good and quality ANC will lower Infant Mortality Rate (IMR) (Patel, et al., 2016) (Gokhale, et al., 2020).

The role of the husband to support pregnant women is essential for encouraging them to participate in the MCH program (Satrianegara, et al., 2021) (Agushybana, 2016),

especially during the COVID-19 Pandemic (Rahmadhani, et al., 2021). However, in this study, it was found that only 58.2% of pregnant women received support from their husbands who continued to use ANC services. This result indicates that educational outreach to husbands is needed.

Knowledge of pregnant women about MCH is very significant for their safety in childbirth and for maintaining their children's health (Nasir, et al., 2017). However, The MCH Handbook as the source of information for pregnant women has not been maximized as an educational tool during pregnancy (Baequni, et al., 2016) (Baequni & Nakamura, 2012).

Sources of information during the COVID-19 Pandemic are important because

there is many incorrect information and it becomes a terror to the public (Nasir, et al., 2020). In addition, many health facilities are inaccessible because they are full of COVID-19 patients (Goyal, et al., 2021) (Tadesse, 2020). Therefore, the role of the government in providing information for pregnant women during the pandemic is very important. This study revealed that the information for pregnant women was found to be inadequate for most of the respondents.

Pregnant mothers need support from health workers as educators, partners, supervisors and evaluators because many mothers need assistance due to low levels of education (Glenton, et al., 2013) (Titaley, et al., 2010).

Table 2
Bivariate Analysis Result, Showed Characteristic's

Characteristics	Antenatal Care Utilization During the COVID-19 Pandemic				Total		<i>p-value</i>
	Less Use		Utilize		n	%	
	N	%	N	%			
Fear of COVID-19							
Fear	38	46,9	43	53,1	81	100	0,050
Not Fear	28	31,1	62	68,9	90	100	
Knowledge							
Low	22	33,3	44	66,7	66	100	0,337
Good	44	41,9	61	58,1	105	100	
Information Media							
Not Enough	31	39,7	47	60,3	78	100	0,901
Enough	35	37,6	58	62,4	93	100	
Service Availability							
Incomplete	61	42,1	84	57,9	145	100	0,047
Complete	5	19,2	21	80,8	26	100	
Husband's Support							
Does Not Support	15	30,6	34	69,4	49	100	0,236
Support	51	41,8	71	58,2	122	100	
Health Worker's Support							
Low	31	38,3	50	61,7	81	100	1,000
Good	35	38,9	55	61,1	90	100	

CONCLUSION

The study concluded that only 61.4% of respondents had utilized antenatal care services during the COVID-19 pandemic. The pregnant women's fear of being infected by COVID-19 and the lack of facilities for ANC must be addressed by health stakeholders by paying special attention to the provision of quality ANC services. Increasing knowledge and access

to information through the media and support from health workers through education for husbands and pregnant women to obtain relevant details using the MCH Handbook and other online media. During the Pandemic, research on pregnant women could be done with a larger sample and better methods to get better information for policymakers.

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