

Care Seeking Behavior For Pregnant and Women Giving Birth During the Covid-19 Pandemic

Rosdianah Rosdianah*¹, Yusril I. Mukarram², Andi A. Nurdin³

^{1,2} Department of Medicine, Universitas Islam Negeri Alauddin, Makassar, Indonesia

³ Department of Medicine, Hasanuddin University, Makassar, Indonesia

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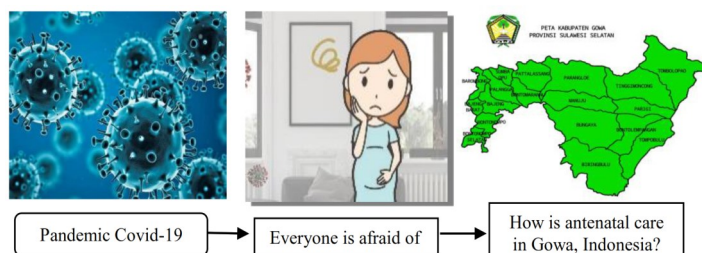
ABSTRACT

The total number of maternal and child mortality in Indonesia annually has not yet reached the target set by World Health Organization. This figure is influenced by maternal compliance to perform antenatal care checks. The research aimed to investigate the behavior patterns of seeking help for pregnant and giving birth during the Covid-19 pandemic. The research design was observational with a cross-sectional study design. The population in this study was selected using the consecutive sampling method based on inclusion and exclusion criteria. Within this approach, 51 samples were obtained in Gowa Regency, to whom questionnaires were distributed to get further data. As seen from the research results, 50 samples (98%) performed antenatal care checks every month, while only 1 sample (2%) did not do antenatal care checks regularly every month. Regarding mothers' knowledge of the Covid-19 pandemic, the data revealed that 33 samples had sufficient knowledge, 7 samples had good knowledge, and the rest, 11 samples, had less knowledge related to such a case. The pattern of care-seeking behavior of pregnant and giving-birth mothers during the pandemic has not changed from the period before the pandemic and pregnant women still routinely check their pregnancy every month.

ABSTRAK

Jumlah kematian ibu dan anak di Indonesia setiap tahunnya belum mencapai target yang ditetapkan oleh World Health Organization. Angka tersebut dipengaruhi oleh kepatuhan ibu untuk melakukan pemeriksaan antenatal care. Penelitian bertujuan untuk mendapatkan gambaran tentang pola perilaku pencarian pertolongan ibu hamil dan melahirkan di masa pandemi Covid-19. Desain penelitian observasional dengan desain cross-sectional study. Populasi dalam penelitian ini dipilih dengan menggunakan metode consecutive sampling yaitu berdasarkan kriteria inklusi dan eksklusi sehingga diperoleh sampel sebanyak 51 sampel di Kabupaten Gowa, selanjutnya sampel tersebut disebarakan kuesioner untuk mendapatkan data selanjutnya. Dari penelitian yang telah dilakukan diperoleh hasil bahwa sebanyak 50 sampel (98%) melakukan pemeriksaan antenatal care setiap bulan dan hanya 1 sampel (2%) yang tidak melakukan pemeriksaan antenatal care secara rutin setiap bulan. Untuk tingkat pengetahuan ibu terkait pandemi Covid-19, 33 sampel memiliki pengetahuan cukup, 7 sampel memiliki pengetahuan baik dan 11 sampel memiliki pengetahuan kurang terkait pandemi Covid-19. Pola perilaku mencari pertolongan ibu hamil dan melahirkan pada masa pandemi tidak berubah dari masa sebelum pandemi yaitu ibu hamil masih rutin memeriksakan kehamilannya setiap bulan.

GRAPHICAL ABSTRACT



Keyword

care seeking behavior
care seeking during pregnant
pregnancy during pandemic
women during pregnancy
women giving birth

* Correspondence

Komp. Griya/Bumi Pallangga Mas 1, Kec. Pallangga,
Gowa, 92161, South Sulawesi, Indonesia
Email: rosdianah.rahim@uin-alauddin

INTRODUCTION

The MDGs in 2015 had already set targets in maternal and infant services, which were to reduce the maternal mortality rate (MMR) to 102 per 100,000 live births worldwide and the infant mortality rate (IMR) to 23 per 100,000 live births. The latest data from 2015 by the [Indonesia Ministry of Health \(2021\)](#) revealed a maternal mortality rate (MMR) of 305 per 100,000 live births, yet this is still far from the target set globally. In South Sulawesi, the maternal mortality rate (MMR) in 2016 was 153 people or 103 per 100,000 live births. This figure has elevated from the previous year, particularly in 2014 and 2015, reaching 138 and 149 people. In Gowa Regency, the maternal mortality rate (MMR) in 2015 and 2016 experienced an increase of 12 and 14 people ([Gowa District Health Office, 2017](#); [South Sulawesi Provincial Health Office, 2017](#)).

One of the government programs implemented to reduce maternal mortality is increasing the coverage of antenatal care checks for pregnant women ([Nababan et al., 2017](#)). Antenatal care visits should be carried out at least 4 (four) times during pregnancy, with the provision of time as 1 time in the first trimester, 1 time in the second trimester, and twice in the third trimester ([Nisar et al., 2016](#)). Antenatal services that are carried out regularly and comprehensively can detect abnormalities early and risks that may arise during pregnancy so that these risks can be addressed quickly and appropriately. Finally, it can reduce perinatal maternal and fetal morbidity and mortality ([Arunda et al., 2017](#)). Pregnant women's behavior pattern in conducting antenatal care (ANC) examinations is here in after referred to as care-seeking behavior. External and internal factors strongly influence this pattern before finally deciding which pattern to use, modern or traditional ([Akeju et al., 2016](#); [Munguambe et al., 2016](#)).

Coronavirus-19 disease (Covid-19) is a

global pandemic affecting various fields in all countries, starting from Wuhan, China ([Malhotra et al., 2021](#)). This influence affects not only developing countries but also developed countries. Because it is a disease discovered for the first time, it caused a polemic in the community ([Aklilu et al., 2020](#)). However, since the declaration of this disease as a pandemic by WHO, there have been many studies, announcements, and seminars conducted by WHO in managing this disease. ([Lai et al., 2020](#)).

During the Covid-19 pandemic, this ANC may be disrupted because pregnant women and their families are reluctant to come to health services for various reasons ([World Health Organization, 2020](#)). A negative stigma related to Covid-19 is developing among the community, which indirectly affects this ANC visit. The stigma in question is that if they visit health services, they will be quickly concluded as infected with Covid-19. Thus, they must be isolated and away from their families. It is thought to cause fear in pregnant women and their families to use health service facilities during pregnancy and childbirth ([Freitas-Jesus et al., 2022](#)).

A study conducted by [Saah et al. \(2021\)](#) regarding treatment-seeking behavior during a pandemic found that during a pandemic, people tend to avoid disease risk factors and do things that can increase resilience. It was supported by [Awel et al. \(2022\)](#) who found a decrease in visits for chronic disease patients due to fear of transmission of Covid-19. The results of a cohort study conducted by [Chou et al. \(2021\)](#) found a decrease in health service visits. However, they switched to online consultations during the pandemic through social media, although several examinations must be conducted offline to reduce transmission in healthcare facilities ([Chou et al., 2021](#)). Therefore, it is essential to criticize pregnant women's compliance with health facilities during Covid-19.

Several studies have been conducted on compliance with visiting health facilities during Covid-19, such as visits for people with diabetes (Beran et al., 2021), for people with ischemic heart (Porter et al., 2021), for dental examinations (Guo et al., 2020), visits by fishermen amidst (Hossain et al., 2022), and visits to emergency departments (Westgard et al., 2020). However, the visits of pregnant women to health facilities during a pandemic have not been studied much, especially in developing countries. This study aimed to observe pregnant women's care-seeking behavior during the Covid-19 pandemic. This study would examine statistically and specifically pregnant women regarding patterns of seeking health assistance during pregnancy and see how the level of knowledge of mothers regarding Covid-19.

METHODS

The type of research used an observational design (non-experimental). The study design used a cross-sectional design taking place in Gowa regency. The research was conducted from October - November 2020. The population of this study was pregnant women who had a pregnancy check-up visit in the second or third trimester. They met the inclusion and exclusion criteria and signed an agreement to participate in the study. The number of samples in this study was 51 samples. The sampling method was carried out by consecutive sampling based on the order of patients' queue lines. The inclusion criteria contain the second trimester (24-28 weeks) and third (28-40 weeks) gestational age, pregnant women who perform prenatal care in Gowa district, Women with complete identity, and a telephone number that can be contacted.

The sample set is 51 samples, then given a questionnaire and interviews to get the data needed in the study. This study gave informed consent to pregnant women prior to conducting

the interview. The contents of this questionnaire included the identity of the mothers and husbands, educational history of the mother and husband (Elementary school - undergraduate), obstetric history (Primigravida, multigravida, and Grande multipara), history of antenatal care (midwife, doctor, obstetrician, or a combination), and mother's knowledge is good, sufficient, and less (It is said to be good if 80% of the questions are answered correctly, it is said to be sufficient if 65% - <80% of the questions are answered correctly and it is said to be lacking if questions <65% are answered correctly). After the data from the sample had been completed, the univariate analysis was carried out in the SPSS application. This study previously received ethical exemption from the Health Research Ethics Committee, Universitas Islam Negeri Alauddin Makassar, with grant B.132/KEPK/FKIK/IX/2021.

RESULTS

The number of samples studied in this study was 51, collected for 1 month, from October to November 2020. Brief sample demographic data related to the age of the mothers and husbands obtained an average age of 20-35 years. In addition, the mothers' and husbands' education, on average, has a high school education. For the mothers' religion or sample, all 51 samples were Muslim, and the last was for the mother's ethnicity, or the average sample was from the Makassar tribe, as seen in [table 1](#). The results obtained were related to the history of the mother's delivery. It was found that the average sample was multigravida, or the mother had given birth more than 1 time, with a total of 48 samples (94.1%). This data in detail can be seen in [table 1](#).

In this study, the pattern of behavior seeking care during pregnancy was divided into 2 categories: whether the mother routinely checks her pregnancy every month during the

Table 1
The Socio-Demographic Characteristic

Characteristics	n = 51	%
Mother's Age (years)		
< 20	0	0.00
20 – 35	45	88.24
>35	6	11.76
Father's Age (years)		
< 20	0	0.00
20 – 35	36	70.59
> 35	15	29.41
Mother's Education		
Primary School	3	5.88
Junior High School	4	7.84
Senior High School	39	76.47
D1	1	1.96
D4	1	1.96
Bachelor	3	5.88
Father's Education		
Primary School	3	5.88
Junior High School	4	7.84
Senior High School	33	64.71
D1	1	1.96
D4	1	1.96
Bachelor	5	9.80
Mother's Religion		
Islam	51	100.00
Mother's Tribe		
Bugis	7	13.73
Madura	1	1.96
Makassar	41	80.39
Toraja	2	3.92
Mother's delivery history		
Primigravida	1	1.96
Multigravida	48	94.12
Grande multipara	2	3.92

Covid-19 pandemic or not. From the results obtained, 50 samples routinely performed antenatal care, and only 1 did not routinely perform antenatal care per month during the pandemic. One sample was found not to do this ANC routinely after a more in-depth interview because the mother or the sample already had 3 children. In addition to data related to the frequency of ANC visits, in this study, it can also be seen that the average maternal antenatal care check-up site is a Local health service with 42 samples (82.4%). In contrast, the average data for the mother's delivery process is assisted by midwives and obstetricians (see [table 2](#)).

The last was data on the knowledge of pregnant women about the Covid-19 pandemic,

which was assessed based on a questionnaire distributed to the sample. The number of questions related to Covid-19 was 12, then the results of the sample answers were categorized into 3, namely good, sufficient and less. From the results obtained, the average sample had sufficient knowledge regarding the Covid-19 pandemic, with 33 samples. While the sample that knew was 7 samples, and the sample with less knowledge was 11 samples. The results obtained can be seen in [table 2](#).

DISCUSSION

The pattern of Care-Seeking Behavior

This study's pattern of care-seeking behavior was seen from how mothers routinely

Table 2
Care Seeking Behavior and Mother's Knowledge

Variable	n=51	Weighted (%)
Monthly Antenatal Care History		
Complete	50	98.04
Incomplete	1	1.96
Place of Antenatal care		
Midwife Clinic	2	3.92
Doctor Clinic	1	1.96
Public Health Center	42	82.35
Hospital	3	5.88
Hospital and Midwife Clinic	1	1.96
Public Health Center And Hospital	2	3.92
History of Normal Delivery		
Yes	51	100.00
No	0	0.00
Birth Attendant		
Midwife	12	23.53
Health Center Doctor	4	7.84
Gynecologist	10	19.61
Midwives and Health Center Doctors	5	9.80
Midwife and Obstetrician	19	37.25
Health Center Doctors and Obstetricians	1	1.96
Mother's knowledge		
Good	7	13.73
Sufficient	33	64.71
Less	11	21.57

carried out health checks during pregnancy. From the data obtained from the study results, it was found that as many as 50 samples routinely carried out pregnancy checks every month. Moreover, only 1 person does not routinely check every month during this pandemic. The reason that was found in the sample who did not do routine pregnancy checkups was because the mother/sample felt that they had had many children, which is currently their fourth pregnancy. For the health seeking pattern, data showed that all research samples carried out modern methods, namely health checks at health centers, hospitals, practicing midwives, and clinics/doctors' practices.

The results of this study are in line with the results of research priority conducted by [Tomatala et al., \(2021\)](#) undertaking research related to the behavior of seeking health services for pregnant women during a pandemic in the Maguwoharjo village during the Covid-19 pandemic, where the results of the research stated

that the behavior of seeking help for pregnant women during the pandemic no different from before the pandemic, namely pregnant women are still routinely to carry out health checks and pregnancy. However, this study is not in line with the research conducted by [Ariestanti et al. \(2020\)](#) with the title determinants of the behavior of pregnant women carrying out antenatal care during the Covid-19 pandemic.

Many risk factors can cause pregnant women to not routinely perform ANC, such as economic status, mother's education, geographical location, family support, disease severity, and the number of parity that can make or determine how the mother has the motivation to have a checkup her health ([John et al., 2019](#); [Kabir et al., 2020](#); [Reibel et al., 2015](#)).

More than 4 million cases of death due to Covid-19 have been reported. Although there is currently no data that mentions explicitly or reports the number of Covid-19 infections, it is believed that millions of pregnant

women may suffer from Covid-19 disease (Pitangui et al., 2021). It is known that many medicines must be used with caution in pregnant women during pregnancy and cannot be separated from the process of handling pregnant women infected with Covid-19 (Dantas et al., 2020). Because it is a new disease and has excellent danger, there is currently no medicine that is entirely safe for use by pregnant women. In this situation, it is necessary to research transmission, risk factors, symptoms, diagnosis, and treatment of Covid-19 for pregnant women. (Looken et al., 2021).

Although in this study, there was no pattern of decreasing ANC visits by pregnant women during the pandemic, in general, the predisposing factors that could affect adherence to ANC were 1) Age because it can affect the mindset of mothers where productive age (20-35 years) is more rational in thinking and taking action, 2) Level of education related to one's knowledge. The higher the education, the more knowledge related to a matter will also be better 3) employment status, usually people with busy jobs tend not to pay attention to their health, 4) maternal parity, namely mothers with a large number of children tend to no longer routinely check their pregnancies, 5) Mother's knowledge can motivate mothers to make ANC visits during pregnancy, 6) The distance between the place of residence, the farther the distance from the place of residence, the more difficult it is for pregnant women to carry out their health checks, and 7) Family support, the role of the family during pregnancy is very important, one of which is the support and motivation to always pay attention to the mother's complaints during pregnancy and accompany the mother to always do checkups.

Mother's level of knowledge

The research results related to mothers' knowledge about the Covid-19 pandemic

showed that the average mother's knowledge was sufficient. The questions are about general knowledge of the Covid-19 disease (Han & Yang, 2020). The Covid-19 disease is a disease that has a different severity level for each individual, which is influenced by many factors. However, this disease is dangerous because the transmission is so fast and can cause many complications, such as severe pneumonia causing asphyxia or lack of oxygen to vital organs such as the kidneys, brain, heart, and others, which can further cause death (Long et al., 2020; Quincho-Lopez et al., 2020; Yarijani & Najafi, 2021). In this study, the level of knowledge is divided into 3 levels: good, sufficient, and less. Most of the samples were at a sufficient level, and after the interview, it was found that most of the samples got information about Covid-19 from social media and television. The knowledge of the sample can also be influenced by age, education level, and counseling carried out by medical personnel. The higher the mother's education, the more likely she will have good awareness to obtain information related to Covid-19 (Hui & Zumla, 2019).

This disease is transmitted through droplets that can last a long time outside the host, in this case, humans, which can then be inhaled or touched by other humans who are not suffering from Covid-19 (Chen & Luo, 2020). This virus is transmitted not only by patients with Covid-19 who are symptomatic but also by those who are asymptomatic through coughing. It can also be through the breath of Covid-19 sufferers with a high level of virulence (Gao et al., 2021; Singhal, 2020).

In most cases, the symptoms of Covid-19 are more in those with low immunity, for example, pregnant women (Phoswa & Khaliq, 2020). When a person is pregnant, there is a change in the body's physiological mechanisms and immune response mechanism, making the mother vulnerable to Covid-19 infection and can cause

symptoms more quickly, which, if not treated immediately, can lead to complications even death (Narang et al., 2020). Apart from pregnant women, the group susceptible to Covid-19 is the elderly. Some reasons that old age or old age are at risk are because most of them have chronic diseases or health problems and also because old age has a weakened immune system which causes old age to tend to get infections (Mueller et al., 2020).

This Covid-19 disease has spread to many regions in Indonesia, so with this incident, the government has set rules that become references or protocols in everyday life. An example of a rule that has been applied in a new habit is always using a mask when outside the house or in a crowd called the New Normal (Winata et al., 2020). In addition, the government stipulates steps to prevent transmission, one of which is to make rules for every confirmed Covid-19 or people who have a history of contact with Covid-19 sufferers, and they are required to self-isolate if they have no symptoms and if they have mild symptoms. If severe or have a comorbid disease, they can be treated at a Covid-19 emergency hospital facility or a Covid-19 referral hospital, depending on the severity of the symptoms. (World Health Organization, 2020).

CONCLUSIONS

Based on the results of research conducted regarding the care-seeking Behavior patterns of pregnant women and childbirth during the Covid-19 pandemic, it can be concluded that the results related to the level of mothers' knowledge regarding the Covid-19 pandemic were, on average sufficient. Namely, mothers were aware that this disease could endanger themselves and their children. The pattern of care-seeking behavior of pregnant women and childbirth during the pandemic had not changed from the period before the pandemic.

Pregnant women still routinely check their pregnancies every month. No factors influence the pattern of care-seeking behavior in pregnant women and childbirth. This research has the strength of explicitly looking at patterns of seeking maternal health assistance during pregnancy during social restrictions and looking at how mothers, as a vulnerable group, can find out about Covid-19. Meanwhile, the limitation of this study is that this research is only statistical and does not conduct research on the relationship related to the risk factors found with patterns of seeking maternal health assistance. As for the suggestions that can be given, As for the advice that can be given, health stakeholders at the research site need to educate every pregnant woman regarding Covid-19 so that mothers can pay more attention to maintaining their health. Future researchers need to examine in in-depth research related to factors that can influence mothers' motivation in seeking health assistance as well as for institutions. The results of this study can be used as a reference source for research, especially on the theme of care-seeking behavior and Covid-19.

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AUTHORS' CONTRIBUTIONS

Rosdianah Rahim wrote the draft, participated in data collection, analyzed the data and drafted of the paper. Yusril I. Mukarram drafted the manuscript and participated in a subsequent revision and participated in data analysis. Andi A. Nurdin approved the draft with some revisions, revised subsequent drafts of the paper. All authors read and approved the final manuscript.

AUTHORS' INFORMATION

Dr. dr. Rosdianah Rahim, M.Kes is Doctoral Postgraduate Program, Hasanuddin University, Makassar, Indonesia, Assistant Professor in the Medicine and Health Science Faculty, Universitas Islam Negeri Alauddin Makassar, Makassar, Indonesia. Yusril I. Mukarram is researcher a graduate of medical education and the medical profession of Universitas Islam Negeri Alauddin Makassar, Makassar, Indonesia. Dr. dr. H. Andi A. Nurdin, M.Sc, is Doctoral postgraduate program and associate professor in IKM-IKK Faculty, Hasanuddin University, Makassar, Indonesia .

COMPETING INTERESTS

The authors confirm that all of the text, figures, and tables in the submitted manuscript work are original work created by the authors and that there are no competing professional, financial, or personal interests from other parties.

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