

Knowledge Relations Regarding Health Protocols with the Behavior of Pregnant Women to Prevent Covid-19 Transmission in the Lambunu 2 Health Center UPTD Work Area

Lisnawati

Poltekkes Kemenkes Palu, Indonesia

Article Info

Article history:

Received Feb 20, 2023

Revised March 27, 2023

Accepted April 08, 2023

Keywords:

Health Protocol;
Behavior of Pregnant
Women;
Covid-19

ABSTRACT

Background: The target number of pregnant women is 525 people, and the number of deaths of pregnant women with Covid-19 at the Lambunu 2 Health Center in 2021 is one person. Therefore researchers need to research the relationship between knowledge of health protocols and the behavior of pregnant women to prevent the transmission of Covid-19.

Objective: This study aims to determine the relationship between knowledge about health protocols and the behavior of pregnant women to prevent the transmission of Covid-19 in the Lambunu 2 Health Center UPTD Working Area.

Method: The design of the study is an analytic survey with a cross-sectional approach. The research in the Lambunu 2 Health Center work area was conducted from March 15 to May 30 2022. The population in this study were all pregnant women in the Lambunu 2 Health Center area. The sample in this study is pregnant women who came to the Lambunu 2 Health Center, a total of 39 respondents. The instrument used is a questionnaire. The data analysis used is the Chi-Square test.

Result: The results show a correlation between respondents' knowledge about health protocols and behavior to prevent the transmission of Covid-19. Twenty-three people (92%) show good behavior and good knowledge as a result. Three people (50%) show a lack of behavior and knowledge. Obtained p value = $0.000 \leq \alpha = 0.05$.

Conclusion: This study concludes that there is a relationship between knowledge about health protocols and the behavior of pregnant women to prevent transmission of Covid-19 in the UPTD Work Area of the Lambunu 2 Health Center. The results of this study provide an understanding to pregnant women about health protocols to prevent the transmission of Covid-19.

This is an open access article under the [CC BY-SA](https://creativecommons.org/licenses/by-sa/4.0/) license.



Corresponding Author:

Lisnawati

Poltekkes Kemenkes Palu, Indonesia

Email: lisnawatinasir54@gmail.com

1. INTRODUCTION

The case of Corona Virus Disease 2019 (Covid-19) was first discovered in China, one of the cities, namely Wuhan in December 2019. After that this virus quickly spread to all corners of the world, including Indonesia. The World Health Organization (WHO) has determined that the disease caused by the Novel

Coronavirus (NCoV) that is sweeping the world is a global pandemic (1). Coronavirus disease 19 or Covid-19 is a condition that causes sudden and dangerous disruption of the respiratory system (2). Death can occur due to pulmonary artery thrombosis (3).

This virus is transmitted between humans to humans starting in December 2019 and the spread of this virus takes place rapidly in the following months (4), including cases of covid-19 that have hit Indonesia every day increasing, up to June 30, 2020 The Ministry of Health reported 56,385 confirmed cases of Covid-19 with 2,875 deaths spread across 34 provinces, the most cases occurring in the age range 45-54 years (5). Whereas in China the most cases occurred at the age of 30-79 years (6), WHO reports 10,185,374 confirmed cases with 503,862 deaths. The size of the area and the high number of infected have made Indonesia's economic and social conditions worse (7).

In this COVID-19 pandemic situation, there are many restrictions on almost all routine services including maternal and newborn health services (8). Pregnant women are one of the groups that are vulnerable and at risk of being infected with Covid-19, because physiologically during pregnancy there are changes that result in a partial decrease in immunity so that it can have a serious impact on pregnant women, although there is no certainty of vertical transmission during pregnancy, p. This was proven from the results of the study, which found that 37 pregnant women with confirmed Covid-19 did not find any maternal deaths and 30 newborns who were born did not find any confirmed Covid-19 (9).

Information about Covid-19 in Indonesia is still very limited, including data on pregnant women who have been confirmed positive for Covid-19. The results of the study of 55 pregnant women and 46 neonates infected with COVID-19 could not confirm vertical transmission and it is not yet known whether increasing cases of miscarriage and stillbirth during pregnancy does not increase the risk of spontaneous abortion and spontaneous preterm birth. The case of a 30 weeks pregnant woman with Covid-19 giving birth to a healthy baby without Covid-19 (11). The study was conducted on 38 pregnant women who had confirmed Covid-19 through PCR no severe pneumonia and/or maternal death, among 30 neonates who were born there were no confirmed cases of Covid-19 (12). Preventive efforts are implementing the 5M health protocol, namely washing hands, wearing masks, maintaining distance, staying away from crowds and reducing morbidity so that pregnant women avoid contracting COVID-19.

Since 2011 the government has carried out socialization and promotion of clean and healthy living behavior (PHBS), namely by washing hands with soap and clean running water, and currently it is recommended to wear a mask, maintain a distance of at least 1.5 meters when interacting socially. And frequently wash hands with soap and clean running water (13).

PHBS is really needed by the community to increase understanding of the importance of clean and healthy living behavior during the Covid-19 pandemic. The way to stop the virus spreading cycle is to carry out the PHBS program or clean and healthy living behavior and maintain immunity and protect personal health by implementing and complying with health protocols such as wearing masks according to the rules, washing hands frequently with running water and using soap because of excessive hand rubbing. Doing so can clean viruses and bacteria and can be rinsed with water (15) and limiting distance or not being close to each other, especially in public places (16).

So far there is no official consensual protocol for treating positive pregnant women. Pregnant women who are patients under surveillance (PDP) for Covid-19 must be immediately hospitalized in a special isolation room at the hospital (17). Therefore, health care and management is conditioned with the main goal of treatment based on isolating pregnant women, classifying them according to risks and needs determined by clinical conditions; recommend proper sleep and rest, promote proper nutrition, provide supplemental oxygen support (if needed) and monitor fluid and electrolyte intake. In addition, vital signs and oxygen saturation levels should be closely monitored, as well as fetal heart rate to monitor pregnancy progress, plan individual delivery, and have a multi-professional team to provide care.

Research on the Behavior of implementing the 3M Health Protocol to prevent Covid-19 in pregnant women to find out the behavior of implementing the Health Protocol (3M) for pregnant women at PMB. Out of 37 respondents, 70% of pregnant women wore masks during their visit, almost all respondents 97% did not wash their hands properly and appropriately according to health recommendations, 51% kept their distance from other visitors, and 57% did not perform 3M behavior which consisted of washing hands, wearing masks and maintaining distance during visits to Titin Widyaningsih Midwife Independent Practice (18). Based on the results of theoretical studies, journal studies and surveys conducted at the Lambunu 2 Health Center in 2021, the number of deaths of pregnant women with cases of Covid-19 is 1 person, the target of pregnant women is 525 people, so it is necessary to do research on pregnant women about health protocol knowledge with behavior to prevent co-vid-19 transmission in the Lambunu Health Center UPTD Work Area 2. Knowledge of the relationship between knowledge about health protocols and the behavior of pregnant women to prevent the transmission of Covid-19 in the Lambunu Health Center UPTD Work Area 2.

2. RESEARCH METHODS

The design used in this study was an analytic survey study with a cross-sectional approach, carried out in the Lambunu 2 Health Center UPTD work area. This research was conducted from March 15 to May 30 2022. The population in this study were all pregnant women in the Lambunu Health Center UPTD work area. 2. The sample in this study were pregnant women who came to visit the UPTD Lambunu 2 Health Center, totaling 39 respondents. The instrument used is a questionnaire. Data analysis used the Chi Square test.

3. RESULTS

Table 1. Frequency Distribution of Respondents based on Age and Education Group Classification (n=39)

Variable	Frequency (person)	%
Age		
< 20 years	3	7,7
21-35 years	31	79,5
> 35 years	5	12,8
Education		
basic education	5	12,8
Middle education	11	28,2
higher education	23	59,0
Total	39	100

Based on the description in table 1, it shows that most of the respondents are aged 21-35 years, namely 31 people (79.5%) with the education level of the most respondents being higher education that is 23 people (59,0 %).

Table 2. Respondents' knowledge and behavior about health protocols to prevent transmission of Covid - 19

Variable	Frequency (person)	%
Knowledge		
Good	25	64,1
Enough	8	20,5
Not enough	6	15,4
Behavior		
Good	28	71,8
Enough	8	20,5
Not enough	3	7,7
Total	39	100

Based on table 2 known that the knowledge of respondents regarding health protocols to prevent the transmission of Covid - 19, the majority was good knowledge, namely 25 people (64.1 %), while the behavior of the most respondents was good behavior, namely 28 people (71.8%).

Table 3. The Relationship between Health Protocol Knowledge and Behavior to Prevent Covid - 19 Transmission in the Lambunu 2 Health Center UPTD Work Area

Variable	Behavior						Total	P.Value
	Good		Enough		Not enough			
	f	%	f	%	f	%	F	%
Knowledge								
Good	23	92	2	8	0	0	25	64,1
Enough	2	25	6	75	0	0	8	20,5
Not enough	3	50	0	0	3	50	6	15,4
Amount	28	71,8	8	20,5	3	7,7	39	100

table 3, it shows that there is a relationship between respondents' knowledge about health protocols and behavior to prevent the transmission of Covid - 19, most of the respondents with behavior good and good knowledge that is 23 people (92%) and at least less behavior and less knowledge that is 3 people (50%). The

Chi Square test results obtained values p value $< \alpha$ ($0.000 < 0.05$), it can be concluded that H_0 is rejected and H_a is accepted. Thus it can be said that there is a relationship between respondents' knowledge about health protocols and behavior to prevent transmission of Covid-19.

4. DISCUSSION

The purpose of this study was to find out the relationship between knowledge about health protocols and the behavior of pregnant women to prevent the transmission of Covid-19 in the Lambunu 2 Health Center UPTD Work Area. The results of the study on 39 respondents showed that most of the respondents were aged 21-35 years.

The results of research on 39 knowledge respondents Regarding health protocols to prevent the transmission of Covid-19, most of them had good knowledge, namely 25 people (64.1%), respondents with sufficient knowledge, 8 people (20.5%) and less knowledge, 6 people (15.4%) because Health protocols are not something foreign or unfamiliar to respondents, since the Covid-19 pandemic broke out at the end of December 2019 which occurred in Wuhan, China, then in 2020 it began to enter Indonesia. Several guidelines began to be socialized and promoted in several media, especially television media, then health workers also played a role in educating the public, including pregnant women, in the context of preventing the transmission of Covid-19. While the behavior of the most respondents was good behavior, namely 28 people (71.8%) respondents with sufficient behavior 8 people (20.5) and less behavior 3 people (7.7%) because the respondents had received information either from health workers or from media about the benefits of health protocols. Socialization is carried out continuously from health workers so that the knowledge of the community, especially pregnant women in the Lambunu 2 Health Center work area is increasing and increasing. This condition is good information for the government in the program to socialize further about preventing the transmission of Covid-19, one of which is the Covid-19 vaccination.

Education from health workers is closely related to the knowledge of respondents so that respondents are aware of checking their pregnancies at the available facilities, the knowledge obtained by respondents that is not sourced from health workers can influence the attitude of mothers to choose pregnancy services, therefore health facilities are not visited by pregnant women to check their pregnancies (19). Knowledge affects compliance with the Covid-19 health protocol (20). 61.1% of knowledge about health protocols for pregnant women is obtained from electronic media and 85.7% from online media (21).

Physiological changes during pregnancy result in decreased partial immunity so that it can have a serious impact on pregnant women, this is why pregnant women are considered a vulnerable group at risk of being infected with Covid-19. It is not certain that there is vertical transmission during pregnancy, this is evidenced by the results of a study that found 37 pregnant women with confirmed Covid-19 did not find any maternal deaths and 30 newborns who were born did not find any confirmed Covid-19. Pregnant women are listed as one of the vulnerable groups at risk of being infected with Covid-19 due to physiological changes that occur during pregnancy which result in a partial decrease in immunity and can have serious consequences for pregnant women. Information about Covid-19 is still very limited, including data on pregnant women confirmed positive for Covid-19, which cannot be concluded in Indonesia. The results of the study of 55 pregnant women and 46 neonates who were infected with Covid-19 cannot be ascertained that there is vertical transmission and it is not yet known whether it increases cases of miscarriage and stillbirth (22). The results of a study conducted by (12) on 38 pregnant women who confirmed Covid-19 through PCR did not find severe pneumonia and/or maternal death, among the 30 neonates who were born there were no confirmed cases of Covid-19.

The preventive effort being carried out is by implementing the health protocol known as 5 M, namely washing hands, wearing masks, maintaining distance, staying away from crowds and reducing morbidity so that pregnant women avoid contracting the corona virus-19 (23). This research is in line with research conducted by (24) in the village of Kutuh, Bandung Regency, which shows that most respondents who have good knowledge have an interest in vaccinating against Covid-19, while respondents who have less knowledge also have little interest in vaccinating for prevention Covid-19. This research is also in line with the research conducted (24) in Brati District, Tegal Regency, there was a significant relationship between knowledge of pregnant women and participation in the co-19 vaccination.

Respondents with good knowledge and good behavior totaled 23 people (92%) while good knowledge and sufficient behavior totaled 6 people (75%). The results of the Chi Square test with a p -value of 0.000 (p value ≤ 0.05), statistically there is a relationship between knowledge about health protocols and the behavior of pregnant women to prevent transmission of Covid-19 in the Lambunu 2 Health Center UPTD Work Area. Research results (25) shows the need for clear information to increase awareness of pregnant women and health workers about the safety of the Covid-19 vaccine. The results of other studies (24), show that a relationship of mutual trust with health workers is important for pregnant women. In line with the steps taken by the Ministry of Health of the Republic of Indonesia which has issued a Circular Letter to increase the support and cooperation of local governments, health service facilities, the community, and related stakeholders in the implementation of the Covid-19 vaccination including the implementation of screening/screening, both for the target pregnant mother.

For the treatment of positive pregnant women, so far there is no official consensual protocol. Therefore, health care and management is conditioned with the main goal of treatment based on isolating pregnant women, classifying them according to risks and needs determined by clinical conditions; recommend appropriate sleep and rest, promote appropriate nutrition, provide supplemental oxygen support (if needed) and monitor fluid and electrolyte intake. In addition, vital signs and oxygen saturation levels should be closely monitored, as well as fetal heart rate to monitor pregnancy progress, plan individual delivery, and have a multi-professional team to provide care.

5. CONCLUSION

Based on the results of the research and discussion, it can be concluded: There is a relationship between respondents' knowledge about health protocols and behavior to prevent transmission of Covid -19 in the Lambunu 2 Health Center UPTD Work Area. Suggestions are that the Lambunu 2 Health Center UPTD can always provide understanding to pregnant women about health protocols to prevent transmission of Covid-19 by making Standard Operating Procedures at the Lambunu 2 Health Center UPTD.

6. THANK-YOU NOTE

Thank you to the Director of the Polytechnic of the Ministry of Health of Palu for funding the research and publication of this article. Thank you to the Head of the Lambunu 2 Health Center for allowing researchers to conduct research at that location.

7. REFERENCES

1. OMS. Considerations in adjusting public health and social measures in the context of COVID-19. World Heal Organ Interim Guid. 2021 ;(November):1–13.
2. Liu J, Liao X, Qian S, Yuan J, Wang F, Liu Y, et al. Community transmission of severe acute respiratory syndrome Coronavirus 2, Shenzhen, China, 2020. *Emerg Infect Dis.* 2020;26(6):1320–3.
3. Lax SF. Pulmonary arterial thrombosis in COVID-19 with fatal outcome: Results from a prospective, single-center, clinicopathologic case Series. *Ann Intern Med.* 2020;173(5):350–61.
4. Lim J. Case of the index patient who caused tertiary transmission of coronavirus disease 2019 in Korea: The application of lopinavir/ritonavir for the treatment of COVID-19 pneumonia monitored by quantitative RT-PCR. *J Korean Med Sci.* 2020;35(6).
5. Kementerian Kesehatan RI. Pedoman Pencegahan dan Pengendalian CORONAVIRUS DISEASE (COVID-19) Revisi ke-5. Jakarta: Kementerian Kesehatan Indones. 2020;5(2):1–214.
6. Wu Z, McGoogan JM. Characteristics of and Important Lessons from the Coronavirus Disease 2019 (COVID-19) Outbreak in China: Summary of a Report of 72314 Cases from the Chinese Center for Disease Control and Prevention. *JAMA - J Am Med Assoc.* 2020;323(13):1239–42.
7. Endah Mulyani, Sulastri, Zahrotul Hidayati, Khaulah Mujahidah. Pengaruh Karakteristik Diri Terhadap Tingkat Pengetahuan Ibu Hamil Tentang Pencegahan Penularan Corona Virus Disease 2019. *J Ilmu Kesehat MAKIA.* 2021;11(1):24–9.
8. Kemenkes RI. Pedoman pelayanan antenatal, persalinan, nifas, dan bayi baru lahir di Era Adaptasi Baru. 2020. 98 p.
9. Siregar RN, Aritonang J, Anita S. Undersanding of Pregnant Women About Efforts to Prevent COVID-19 Infection During Prenancy. *J Healthc Technol Med.* 2020;6(2):798.
10. Yan J. Coronavirus disease 2019 in pregnant women: a report based on 116 cases. *Am J Obstet Gynecol.* 2020;223(1):111.
11. Wang X. A case of 2019 novel coronavirus in a pregnant woman with preterm delivery. *Clin Infect Dis.* 2020;71(15):844–6.
12. Schwartz DA, MD, Hyg M. An Analysis of 38 Pregnant Women With COVID-19, Their Newborn Infants , and Maternal-Fetal Transmission. *Arch Pathol Lab Med.* 2020;144:799–805.
13. Kemenkes RI. Pedoman kesiapan menghadapi COVID-19. Pedoman kesiapan menghadapi COVID-19. 2020;0–115.
14. Margowati S, Ratnasari MD, Ardiyaningrum D, Sari DA, Normalita I. Implementasi Perilaku Hidup Bersih dan Sehat Pada Masyarakat Terhadap Protokol Kesehatan di Masa Pandemi Covid-19. *Community Empower.* 2021;6(4):524–31.
15. Surtaryo, Sabrina dea sella, Sagoro L, Yang N. Buku Praktis Penyakit Virus Corona 19 (COVID-19). Vol. 53, Gadjah Mada University Press. 2020. 1–113 p.
16. Nismawati N, Marhtyni M. Faktor Yang Berhubungan Dengan Penerapan Protokol Kesehatan Pada Pelaku Usaha Mikro Selama masa Pandemi Covid -19. *UNM Environ Journals.* 2020;3(3):116.
17. POGI. Rekomendasi penanganan infeksi virus corona (COVID-19) pada maternal (hamil, bersalin dan nifas). Penanganan infeksi virus corona pada maternal. *Pogi.* 2020;1–28.
18. Deviyanti, Ummi, D. Y. Perilaku Penerapan Protokol kesehatan 3M pencegahan covid-19 pada ibu hamil di PMB Titin Widyaningsih tahun 2021. Pontianak: Akademi Kebidanan Panca Bhakti Pontianak. 2021;11:615–22.
19. Sinambela M, Solina E. Analisis Faktor - Faktor Yang Mempengaruhi Ibu Hamil Terhadap Pemeriksaan Antenatal Care (Anc) Selama Pandemi Covid-19 Di Puskesmas Talun Kenas Tahun 2020. *J Kebidanan Kestra.* 2021;3(2):128–35.
20. Sarah, Multazam AM, Gobel FA. Faktor Yang Mempengaruhi Kepatuhan Ibu Hamil Terhadap Protokol Kesehatan Covid-19 Di Puskesmas Bone-Bone Kabupaten Luwu Utara. *J Muslim Community Heal.* 2021;2(1).

21. Widiani NNA, Karmiani NW. *Jurnal Genta Kebidanan*. 2020;10:68–72.
22. Siregar RN, Aritonang J, Anita S. Pemahaman Ibu Hamil Tentang Upaya Pencegahan Infeksi Covid-19 Selama Kehamilan. *J Healthc Technol Med*. 2020;6(2):798.
23. Praharsini AA. Covid-19 : Upaya Preventif dan Kuratif ala Ibu Hamil. 2021;4.
24. Masturoh I. *Metode Penelitian Kesehatan*. Pus Pendidik sumber daya Mns Kesehat. 2018;
25. Pairat K, Phaloprakarn C. Acceptance of COVID-19 vaccination during pregnancy among Thai pregnant women and their spouses: a prospective survey. *Reprod Health*. 2022;19(1):1–11.