Factors Related to Prevention Behavior of COVID-19 Transmission among Pregnant Women

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ABSTRACT

Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2) is a new virus that can cause lung disease and death. Pregnant women are one of the vulnerable groups exposed to coronavirus, pregnant women have a higher risk of contracting severe disease, morbidity and mortality compared to the general population. The research design used was Cross Sectional. The population used was all pregnant women in trimesters 1-3 which consisted of 100 people in July-August 2021.The variables of this study were knowledge, attitudes, sources of information, the role of health workers and the behavior of preventing the transmission of COVID-19 in pregnant women. The research instrument used in the study was a questionnaire. The data analysis used is univariate analysis and bivariate analysis. The results showed that out of 100 respondents, 55 (55.0%) respondents had good knowledge, 57 (57.0%), 65 (65.0%) respondents used electronic sources of information, and 55 (55.0%) respondents had good preventive behavior. and 45 (45.0%) respondents had poor preventive behavior. There was a relationship between knowledge (p-value 0.000 OR 3.682), attitudes (p-value 0.000 OR 5.308), and sources of information (p-value 0.002 OR 4.460) with the behavior of preventing the transmission of COVID-19 in pregnant women. This results can be used as a reference to improve mindset and knowledge and make additional knowledge during a pandemic. Health care provider need to educate pregnant women regarding prevention behavior of COVID-19 behavior.

Keywords: behavior; transmission of COVID-19; pregnant women

INTRODUCTION

The Novel Coronavirus Disease 2019 (COVID-19) infection has spread since 2019, the World Health Organization (WHO) reported that this virus was first discovered in Wuhan (Qiao, 2020). All parts of the world are now reporting the number of people who are positively infected with Covid-19, including in Indonesia (Novelia, Usman, & Pamungkas, 2021). Covid-19 cases in Indonesia are still increasing and cannot be controlled as well as in positive cases, recovering and dying. Positive Covid-19 cases have reached 1.6 million positive cases, 1.53 million recovered and 45,652 cases died. Covid-19 cases in West Java reached 344,568 positive cases, 311,203 recovered and 4609 died. Andrea, 2020).

Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2) is a new virus that can cause lung disease and death. The disease is more common in the elderly and in individuals with cardiologic, respiratory, renal, and metabolic comorbidities. SARS-CoV-2 infection may increase the risk of pneumonia in pregnant women compared to non-pregnant women (Budiarti, 2020)

Pregnant women are one of the vulnerable groups exposed to coronavirus, pregnant women have a higher risk of contracting severe disease, morbidity and mortality compared to the general population. Physiological and immunological changes that occur as a normal component of pregnancy can have systemic effects that increase the risk of obstetric complications from respiratory infections in pregnant women. Side effects on the fetus in the form of preterm delivery have also been reported in pregnant women with Covid-19 infection. During the pandemic, there were significant changes in health services, especially for pregnant women

The principles of preventing the transmission of coronavirus in pregnant women include universal precautions by always washing hands with soap for 20 seconds or hand sanitizer, using personal protective equipment (cloth masks),

maintaining body condition by diligently exercising and getting enough rest, eating with balanced nutrition and practicing cough-sneezing etiquette (Ministry of Health, 2020)

The control strategy implemented in Indonesia involves all parties, both from the government itself and from the community. Efforts made by the government are 3T (test, treat and trace), the community by implementing health protocols and providing vaccinations for the formation of group immunity or herd immunity. Pregnant women are one of the groups who were not given the Covid-19 vaccination, even until the latest circular issued by the Ministry of Health on February 11, 2021, did not include pregnant women as the target recipient of the Covid-19 vaccination. Therefore, the things that can be done at this time are optimizing efforts to prevent Covid-19 in pregnant women, to prevent mortality and morbidity in mothers and babies (Ministry of Health, 2020).

Independent Midwife Practice (*Praktik Mandiri Bidan*=PMB) as a health service facility whose duties and authorities are to provide health services to pregnant women (UU No 4, 2019), most of the pregnancy check-ups are carried out by midwives (82.4%) and located in PMB (41 %) (Ministry of Health, 2018). Recommendations for PMB during the Covid-19 pandemic and the new normal are: make an announcement board/banner about the Covid-19 prevention protocol at PMB, provide a place to wash hands using soap with running water and temperature gauges for all visitors, ensure all equipment and supplies are in good condition. In disinfection, all services are carried out by making an appointment via telephone/WhatsApp chat, conducting a comprehensive assessment according to standards, including information on Covid-19 transmission vigilance, using Personal Protective Equipment (PPE) as needed by using and removing correctly, collaborating and referring patients to the hospital (Nurjasmi, 2020).

A preliminary study conducted by researchers by briefly interviewing 10 pregnant women who did a pregnancy check at PMB found 4 out of 10 people who knew that the Covid-19 virus was dangerous, 4 people still gathered and did not keep their distance from each other. Pregnant women should have good knowledge and understanding of how to take care of themselves to avoid Covid-19. Through adequate knowledge, it is hoped that mothers can also have good attitudes and behaviors in living their daily lives. So based on the occurrence of the covid-19 outbreak, the authors are interested in conducting research on factors related to the behavior of preventing the transmission of Covid-19 in pregnant women in PMB R. Agustina and PMB Wiwi Widaningsih.

METHOD

This research was a quantitative research with the research design used is Cross Sectional. The population used was all pregnant women in trimester 1-3 which consisted of 100 people at PMB Midwife Rosita in July-August 2021. This research was conducted at PMB Midwife Rosita Agustina Amd.Keb and PMB Midwife Wiwi Widaningsih in West Bandung Regency in July-August 2021. The variables in this study were knowledge, attitudes, sources of information, the role of health workers and the behavior of preventing the transmission of COVID-19 in pregnant women. The research instrument used in the study was a questionnaire that has been developed by the researcher and had been tested for validity and reliabilty. The data analysis used is univariate analysis and bivariate analysis.

RESULT

Univariate Analysis

Table 1. Frequency Distribution

Variable	Frequency		Percentage	
	Good	Poor	Good	Poor
Knowledge	55	45	55.0	45.0
Attitude	57	43	57.0	43.0
Preventive Behavior	55	45	55.0	45.0
Information Media	Frequency		Percentage	
Print Media	35		35.0	
Electronic	65		65.0	

Based on the table above, it can be seen that the majority of respondents have good knowledge, (55%), good attitudes, (57%), good preventive behavior (55%), and have electronic information sources,(65%).

Bivariate Analysis

Table 2. The Relationship between Knowledge, Attitude, Source of Information and Prevention of COVID-19 Transmission Behavior

	Prevention Behavior				n	%	p
	Good		Poor				
	n	%	n	%			
Knowledge							
Good	38	69.1	17	30.9	55	100.0	0.003
Poor	17	37.8	28	62.2	45	100.0	
Attitude							
Good	41	71.9	16	28.1	57	100.0	0.000
Poor	14	32.6	29	67.4	43	100.0	
Source of Information							
Print Media	27	77.1	8	22.9	35	100.0	0.002
Electronic	28	43.1	37	56.9	65	100.0	

Based on the table above, it can be seen that out of 55 respondents with good knowledge, 38 (69.1%) respondents had good preventive behavior and 17 (30.9%) respondents had poor preventive behavior. Out of 45 respondents with poor knowledge, 28 respondents (62.2%) respondents had poor prevention behavior. Statistical test results obtained p-value = 0.003 which can be concluded that there was a relationship between Knowledge and Prevention of Covid-19 Transmission Behavior in Pregnant Women.

Based on the table above, it can be seen out of 57 respondents with good attitudes, 41 (71.9%) respondents had good prevention behavior. Out of the 43 respondents with poor attitudes, majority of them had a poor preventive behavior (67.4%). The results of the statistical test obtained p-value = 0.000 which means p-value <α (0.05), it can be concluded that there was a relationship between attitude and behavior to prevent covid-19 transmission.

Based on the table above, it can be seen that out of 35 respondents who got information from print media, majority of them (77.1%) had a good prevention behavior. Out of 65 respondents who got information from electronic media, majority of them (56,9%) had a poor prevention behavior. The results of the statistical test obtained p-value = 0.000 which means that there was a relationship between Information Sources and Covid-19 Transmission Prevention Behavior.

DISCUSSION

The Relationship between Knowledge and Prevention Behavior

Based on the results of the d statistical test, it can be concluded that there was a relationship between knowledge and behavior to prevent transmission of Covid-19 in pregnant women. Patimah's research (2021) obtained a p-value of 0.06 (>0.05), which means the null hypothesis is accepted, so there was no significant relationship between knowledge level and Covid-19 prevention behavior.

According to Bloom and Skinner, knowledge is a person's ability to re-express what he knows in the form of evidence of an answer either verbally or in writing, the evidence or writing is a reaction to a stimulation in the form of a question, either oral or written (Notoatmodjo, 2012). Many factors affect respondents' knowledge about preventing COVID19. According to Notoatmodjo (2012), the factors that influence knowledge are education, age, occupation and other external factors. Age affects knowledge, according to Budiman (2013) which states that age affects a person's perception and mindset. With increasing age, a person's ability to capture and mindset develops so that the knowledge gained increases as well (Novelia, Aulya & Regiyanti, 2021). However, according to the opinion of Cropton, J (1997) quoted from Aulia's research which states that productive age is an active adult age in activities so that it supports learning and remembering the information obtained, but at certain ages or near old age the ability to accept or remember knowledge will decrease (Mujiburrahman, 2020).

In the opinion of researchers, apart from formal education, it can be obtained through other people and mass media, including magazines, television, newspapers, and radio. And someone with low education does not mean absolutely have low knowledge as well. However, another opinion says that with higher education, a person will be easier to receive information so that the knowledge he has will increase (Carter, in Sumartini, 2019). In the opinion of the researcher, the results of this study are in accordance with the opinion of Notoatmodjo (2012) where knowledge can be obtained apart from formal education in schools but can also be obtained from non-formal education outside school and through experience. Even though the respondents are in the majority with low education, it does not mean that they have

absolutely low knowledge. Education does not affect their knowledge because respondents with good knowledge can obtain information from experience or other people as well as the mass media (Novelia, Sia & Songwathana, 2017; Sumartini, 2019.).

The Relationship Between Attitude With Preventive Behavior

The results showed that there was a relationship between Attitude and Covid-19 Prevention Behavior in Pregnant Women. Attitude is mental readiness, which is a process that takes place within a person, together with each individual's experience, directs and determines responses to various objects and situations. Compliance Attitude is a term used to describe people's behavior in complying with COVID-19 prevention protocols such as the use of masks. Compliance is a positive behavior shown by the community when people use masks, wash their hands and so on. Factors that affect adherence depend on many factors, including knowledge, motivation, perception, and belief in disease control and prevention efforts, environmental variables, quality of health instructions, and ability to access available resources (Sinuraya et al, 2018). Meanwhile, non-compliance is a condition when an individual or group wishes to comply, but there are a number of factors that hinder adherence to health advice given by health workers (Prihantana, 2016). Non-compliance is the extent to which a person's behavior and nursing care providers such as health promotion plans or therapy plans are agreed between the care provider and professional services (Wulandari, 2015).

In the opinion of researchers, attitude itself is formed from three components they are cognitive, affective, and behavioral. Cognitive relates to thoughts and ideas related to the object of attitude, including things that he knows around the object of attitude, can be in the form of responses, impressions, and assessments of the attitude object earlier. Affective relates to one's feelings or emotions towards the object of attitude, it can be known through feelings of liking or disliking, liking or disliking the object of attitude. Furthermore, the behavioral component can be known through the subject's response with regard to the attitude object, it can be an observable action or deed and it can be an intention or intention to perform certain actions in relation to the attitude object. Intention is a predisposition or readiness to act on an attitude object

The Relationship Between Information Sources With Preventive Behavior

The results shows that there was a relationship between the source of information and the behavior of preventing the transmission of Covid-19 in pregnant women. Kundari Research (2020) The category of information sources regarding COVID-19 has a dominant influence on COVID-19 prevention behavior in people in the Greater Jakarta area (p-value <0.05). People who use online news websites as their main source of information about COVID-19 are 1,692 times more likely to have good behavior in preventing COVID-19 transmission than those who use social networks.

Social media exposure (intensity, frequency, and response) has no significant effect on COVID-19 prevention behavior. Social media is a media that is not only in the form of social networks such as Facebook, Twitter, Instagram, but includes all services that provide creation, sharing, and exchanging of content such as internet forums, blogs, networking sites, and so on. Through social media, the public can more easily exchange health information, including related to the prevention of COVID-19 without interacting face-to-face. Not all people apply COVID-19 prevention behavior from the information submitted even though it is considered helpful. This may occur due to other factors that influence individuals in their behavior, such as ensuring in advance the correctness of the information obtained, the absence of supporting facilities to carry out preventive behavior, lack of encouragement or motivation given directly by those closest to them.

According to researchers, apart from seeking information on COVID-19, each individual has different goals in using social media. Some of them are communicating, shopping or online business activities, searching or sharing information related to certain fields, sharing photos or videos through the available features, and so on. Therefore, one of the weaknesses of this study is that the intensity and frequency of social media use has not been able to measure specifically the level of exposure to COVID-19 information for each respondent. Implementing COVID-19 preventive behavior in daily life is an important key to suppressing the spread of the SARS-CoV-2 virus. Therefore, special attention is needed from all parties in designing strategies and making various efforts so that people are able to change their behavior to become healthier.

CONCLUSION

There was a relationship between knowledge and behavior to prevent transmission of covid-19 in pregnant women with a value (p-value 0.000), there was a relationship between attitudes and behavior to prevent transmission of covid-19 in pregnant women (p-value 0.000), there was a relationship between the source of information and the behavior of preventing the transmission of COVID-19 in pregnant women (p-value 0.002). The results of this research can be used as a tool to improve pregnant women behavior of prevention of covid-19.

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REFERENCES

Andrea. (2020). *Covid-19 dari wabah jadi Pandemi*. https://katadata.co.id/infografik/2020/03/16/Covid-19-dari-wabah-jadi-pandemi.

Budiarti, A., Arini, D., Hastuti, P., Ernawati, D., Fatimawati, I., Faridah, F., & Dewinta, D. (2021). Edukasi Kesehatan Pencegahan Covid-19 Dalam Perubahan Pengetahuan Masyarakat Kalipecabean Sidoarjo. *E-Amal: Jurnal Pengabdian Kepada Masyarakat*, *1*(2), 213-218.

Kemenkes RI. 2020. *Pedoman Pencegahan Pengendalian Coronavirus Disease (COVID-19)*. Jakarta: Dirjend P2P .

Kemenkes, R.I. (2018). Hasil utama Riskesdas 2018. *Jakarta Badan Penelit dan Pengemb Kesehatan, Kementrian Kesehat Republik Indones*.

Mujiburrahman, M., Riyadi, M. E., & Ningsih, M. U. (2020). Hubungan Pengetahuan dengan Perilaku Pencegahan Covid-19 di Masyarakat. *Jurnal Keperawatan Terpadu (Integrated Nursing Journal)*, *2*(2), 130-140.

Notoatmodjo, S. (2012). *Perilaku Kesehatan*. Jakarta: RIneka Cipta

Novelia, S., Sia, W. S., & Songwathana, P. (2017). Nurses' knowledge and practice regarding the prevention of cesarean section surgical site infection in Indonesia. *GSTF Journal of Nursing and Health Care (JNHC)*, *4*(2).

Novelia, S., Usman, A. M., & Pamungkas, R. A. (2021). Perceived Stress among Health Care Workers of an Emerging Infectious Covid-19 Outbreak in Indonesia. *Asian Community Health Nursing Research*, 9-9.

Novelia, S., Aulya, Y., & Regiyanti, E. (2021). The Effect of Breast Self-Examination (BSE) Class on Knowledge and Practice of Breast Self-Examination among Adolescent Girls. *Nursing and Health Sciences Journal (NHSJ)*, *1*(1), 49-53.

Novelia, S., Rukmaini and Annisa, E. (2021). Factors Related to Chronic Energy Deficiency among Pregnant Women. *Nursing and Health Sciences Journal (NHSJ, 1*(3), 237-241. doi: 10.53713/nhs.v1i3.54.

Nurjasmi, E. (2020). *Situasi Pelayanan Kebidanan pada Masa Pandemi COVID-19 dan Memasuki Era New-Normal.*

POGI, P. I. S. R. (2020). *Rekomendasi Penanganan Infeksi Virus Corona (COVID-19) pada Maternal (Hamil, Bersalin dan Nifas).* Surabaya: sn.

Prihantana, dkk. (2016). Hubungan Pengetahuan Dengan Tingkat Kepatuhan Pengobatan Pada Pasien Tuberkolosis Di RSUD Dr. Soehadi Prijonegoro Sragen. *Jurnal Farmasi Sains Dan Praktis, 2*(1).

Qiao, K.,Chen, L., Liu, M., Zhang, Z., Huang, T., Chen, M., ... & Wang, J. (2020). Ocular manifestations of a hospitalised patient with confirmed 2019 novel coronavirus disease. *British Journal of Ophthalmology*, *104*(6), 748-751.

Sinuraya, R. K., Destiani, D. P., Puspitasari, I. M., & Diantini, A. (2018). Pengukuran tingkat kepatuhan pengobatan pasien hipertensi di Fasilitas Kesehatan Tingkat Pertama di Kota Bandung. *Indonesian Journal of Clinical Pharmacy*, *7*(2), 124-133.

Susmiarsih, T. P., Marsiati, H., & Endrini, S. (2019). Peningkatan pengetahuan faktor-faktor yang memengaruhi perilaku seks dalam upaya cegah seks pranikah pada siswa-siswi SMP N 77 dan SMA N 77 Jakarta Pusat. *Jurnal Pengabdian kepada Masyarakat (Indonesian Journal of Community Engagement)*, *4*(2), 206-213.

Wulandari. (2015). Analisis Faktor-Faktor yang Berhubungan dengan Kepatuhan Pasien Tuberkulosis Paru Tahap Lanjutan Untuk Minum Obat di RS Rumah Sehat Terpadu Tahun 2015. *Jurnal ARSI, 2*(1).