Available on: https://nursingjurnal.respati.ac.id/index.php/JKRY
Jurnal Keperawatan Respati Yogyakarta, 10(1), January 2023, 12 – 16

RELATIONSHIP OF KNOWLEDGE OF PREGNANT MOTHERS WITH PREVENTING BEHAVIOR OF COVID-19 INFECTION AT PUSKESMAS GRABAG 1

Inthan Amira Audhinia[1*)], Heni Setyowati ER[2] & Eka Sakti Wahyuningtyas[3]
[1,2,3]Universitas Muhammadiyah Magelang

Abstract

Pregnant women are a group of people who are vulnerable to health problems. Physiologically, pregnant women experience a decrease in the immune system, this is probably due to an adjustment in the body of pregnant women to babies who are semi-allogenic tissues. Information about COVID-19 during pregnancy that can interfere with the health of pregnant women is still very limited. The pandemic period is very important to break the chain of virus transmission and protect those who are at risk of contracting the virus, which can be done individually by always maintaining personal hygiene independently or in groups through social distancing. That one of the factors of behavior is knowledge. Knowledge that a person has affected behavior, the better a person's knowledge, the better his behavior. The purpose of this study was to determine the relationship between knowledge of pregnant women and the COVID-19 prevention behavior. The design of this study was descriptive correlative with a cross-sectional approach. The sample of this study amounted to 86 respondents with a sample collection technique using random sampling. The research instrument used was the Covid-19 knowledge questionnaire to measure the level of knowledge of Covid-19 and prevention behavior. Statistical test using Spearman statistical test. The results of this study using the Spearman statistical test, based on the data obtained, it shows that there is a relationship between the knowledge of pregnant women about Covid-19 and the behavior of preventing transmission of Covid-19 infection. at the Grabag 1 Public Health Center with p-value = 0.650 and r = 0.212.

Keywords: *Pregnant Women; Knowledge of Covid – 19; Preventive Behavior*

Article info: *Sending on September 26, 2022; Revision on November 14, 2022; Accepted on November 30, 2022*

**) Corresponding author:*
Email: henisetyowati@ummgl.ac.id

1. Introduction

In December 2019, the first cases were reported in Wuhan, Hubei Province, China. In December 2019, five patients were admitted for Acute Respiratory Distress Syndrome (ARDS). From December 2019 to January 2020 these cases increased rapidly, marked by the reported 44 cases in Wuhan. The three samples studied showed the etiology of the new Coronavirus. Two Initially, this disease was tentatively named as 2019 novel coronavirus (2019-nCoV), then WHO (World Health Organization) announced a new name in February 2020, namely Coronavirus Disease (COVID-19) caused by the Severe Acute Respiratory Syndrome Coronavirus-2 (SARS-CoV-2) (Susilo et al., 2020).

Common signs and symptoms of COVID-19 transmission that occur are acute respiratory disorders such as fever, cough, chest pain, and shortness of breath. The average incubation period is 5-6 days followed by an incubation period of fever, cough, chest pain and shortness of breath. In the above cases, COVID-19 can cause pneumonia, acute respiratory syndrome, kidney failure, and even worse, death (Putri, 2020).

Pregnant women are a group of people who are vulnerable to health problems. In addition, pregnant women are also very sensitive to infections caused by various kinds of microorganisms that are triggered by changes in the anatomy and physiology of the pregnant woman's body. Physiologically, pregnant women experience a decrease in the immune system, this is probably due to an adjustment in the body of pregnant women to babies who are semi-allogenic tissues (Mulyani et al., 2020).

During the pandemic, there were significant changes in health services, especially for pregnant women. Based on data from the Indonesian Ministry of Health (Kemenkes RI, 2020) antenatal care visits have also decreased, in fact only 19.2% of posyandu are still active during the pandemic (Rizkia et al., 2020). Pregnant women should have good knowledge and understanding of how to protect themselves from COVID-19. With adequate knowledge, it is hoped that mothers can also have good attitudes and behaviors in living their daily lives. So based on this phenomenon, the the author is interested in conducting research on the relationship between the level of knowledge and the behavior of pregnant women during the COVID-19 pandemic (Rajaratenam et al., (2020).

Pregnancy accompanied by anxiety will lower the mother's immune system so that pregnant women will be more susceptible to COVID-19 infection (Siregar et al., (2020). The data available for COVID-19 infection in pregnant women is still limited. There are changes in the body and immune system of pregnant women, they can experience a fairly severe impact due to several respiratory tract infections. So it is important for pregnant women to take preventive steps to protect themselves from COVID-19 and report symptoms that may arise, namely fever, cough, difficulty breathing (Wahyuni et al., (2020).

2. Method

The research design uses quantitative research using correlational analysis, the research approach uses cross sectional, namely research that uses independent variables and the dependent variable is studied at the same time) to see the relationship of knowledge of pregnant mothers with preventing behavior of covid-19 infection at Puskesmas Grabag 1. This target population is 396 pregnant women at Puskesmas Grabag 1 from early September to late September 2021. The data collection method used a questionnaire. Analysis of the data used is univariate and bivariate statistical tests. This research has passed the Ethical clearance test with ethical number 194/KEPK.FIKES/ll.3.AU/2021.

3. Results and Discussion

Univariate analysis describes the characteristics of respondents in this study consisting of age, education, occupation, knowledge, and behavior.

Based on table 1, it shows that the research conducted at the Grabag 1 Public Health Center is the majority of respondents aged between 21-34 years. Based on the educational background of the respondents, the respondents who have the most educational background are high school graduates with the percentage reaching 49 people (57%). Respondents also have the most work background are housewives at 84.9%.

Based on the productive age range of women, which is from 20 to 35 years, this illustrates that most of them have had experience from previous pregnancies so that the mother can better understand pregnancy adaptation (Nurhasanah, Maulida and Erawati, 2021). The age of 20-35 years is also an age that has the ability to be creative, to seek information, to remember, compared to older ages. As a person ages, the more knowledge he has (Corneles and Losu, 2015).

Table 1. Characteristics of respondents by age, education, occupation (n=86)

Characteristics	amount	%
Age		
≤ 20 tahun	26	7.6
21 – 34	77	89.5
>35	3	3.5
Education		
SLTP	20	23.3
SLTA	49	57.0
S1	17	19.8
Profession		
Housewife	73	84.9
Government employees	7	8.1
entrepreneur	6	7.0

Notoatmodjo (2014) suggests that knowledge is influenced by a person's experience and the environment that is expressed and is believed to be able to cause motivation.. Where someone who has a higher education level tends to more easily access or obtain information. This makes it easier for respondents to absorb and understand information about a healthy pregnancy, the importance of pregnancy check-ups and the healthy food provided. Higher education levels have broad insight, and are more experienced, making it easier to solve problems and know how to work on positive coping mechanisms (E. P. W. Angesti, 2020). Knowledge plays a very important role in taking action as well as in preventing Covid-19 and education greatly influences a person's knowledge which in this case relates to the prevention of Covid-19. Where, someone who has good knowledge tends to act better in maintaining health (Dewi, Widowati and Indrayani, 2020).

With the most educational background, namely high school, and the respondent's occupation is as a housewife, and a non-health background, this can provide an overview of the suitability of free time in obtaining information so that respondents are considered good in terms of knowing and also responding to the Covid-19 outbreak during during pregnancy, which makes pregnant women respondents feel that they can prevent the

transmission of the Covid-19 virus, especially to their prospective babies. occupation and educational/occupational background found to be related to the level of knowledge of Covid-19 individuals with non-health education/occupational backgrounds certainly have lower experience of knowledge about health than individuals with health education/occupational backgrounds (E. P. Angesti, 2020).

Table 2. Frequency distribution based on knowledge of Covid-19, and Covid-19 prevention behavior (n=86)

Variable	amount	%
Knowledge		
Good	61	70.9
Sufficient	11	12.8
Deficient	14	16.3
Behavior		
Good	55	64.0
Sufficient	19	22.0
Deficient	12	14.0

Based on table 2. shows that the research conducted at the Grabag I Health Center was related to knowledge about Covid-19, where in 86 respondents who had been studied, 61 respondents with a percentage of 70.9% had good knowledge about Covid-19, as many as 14 respondents have low knowledge level and as many as 11 respondents have a sufficient level of knowledge. Meanwhile, the behavior of pregnant women at the Grabag I Health Center towards the prevention of Covid-19 was 55 respondents who had good preventive behavior against Covid-19, 19 respondents had sufficient behavior and 12 respondents had poor behavior in preventing Covid-19.

Lawrence Green in Notoatmodjo (2011) explains that knowledge is one of the factors that can influence health behavior. Knowledge is included in the predisposing factors or causal factors. The behavior that a person displays based on the knowledge he has. The better the knowledge, the better the behavior, and vice versa the less knowledge, the behavior is also getting less. This can be proven in this study, where respondents whose behavior in preventing the transmission of COVID 19 is not good are respondents who have less knowledge, and vice versa, respondents whose behavior is good are mostly respondents who have good knowledge.

Behavior is an experience and human interaction with the environment that is manifested in the form of knowledge, attitudes and actions of a person in dealing with something. While behavior is the response or reaction of a person to something that comes from outside or from within himself. This is also in accordance with the theory presented by Notoatmodjo (2012) that Knowledge is influenced by one's experience and the environment which is then expressed and believed to be able to grow one's motivation. Of the respondents who are all pregnant women with non-health backgrounds, high school education qualifications and having a job as a housewife can affect knowledge about Covid-19, it can be assumed that the results of the study are in line with the theory.

Bivariate analysis was conducted to identify the presence or absence of a relationship between independent variable and dependent variable. The bivariate analysis in this study was to determine whether there was a relationship between knowledge of pregnant women and the behavior of preventing transmission of Covid-19 infection at the Grabag 1 Health Center.

Table 3. Relationship between Knowledge and Covid-19 Prevention Behavior

	Behavior						
Knowledge	Good	Sufficient	Deficient	amount	%	ρ	p
High	49	11	1	61	70.9		
Intermediate	6	5	0	11	12.8	0.650	0.005
Low	0	3	11	14	16.3		
amount	55	19	12	86	100		

From the table above, it is found that the total value of knowledge about Covid-19 with the total value of Covid-19 prevention behavior of pregnant women at the Grabag I Health Center has a correlation relationship, where the correlation value between the two relationships is (ρ - spearman) = 0.650, which when viewed into the r-table then for the value of N = 86 with a significance value of 0.05 is 0.212. So that the total value of knowledge has a relationship with the value of Covid-19 prevention behavior and the level of correlation of this relationship is in the moderate level.

Knowledge according to Lawrencee Green in Notoatmodjo (2011) is one of the factors that influence health behavior. Knowledge is

included in the predisposing factors or causal factors. The behavior that a person displays based on the knowledge he has. The better the knowledge, the better the behavior, and vice versa the less knowledge, the behavior is also getting less. This can be proven in this study, where respondents whose behavior in preventing the transmission of Covid-19 is not good are respondents who have less knowledge, and vice versa, respondents with good behavior are the majority of respondents who have good knowledge. Hardianti, Erlinawati, & Syafriani, (2021), Hardianti, Erlinawati, & Syafriani, (2021), regarding the Relationship of Knowledge of Pregnant Women with Covid-19 Transmission Prevention Behavior in the work area of the Pedamaran Health Center, Pekaitan District, Rokan Hilir Regency, stated that the results of the study showed that the majority of respondents had poor knowledge, namely 53 people. (63.1%) and have bad behavior in preventing the transmission of Covid-19, namely 55 people (65.5%).

In this case, the authors agree with the research obtained from Amelia et al (2014) that someone with a higher socioeconomic status has better habits in preventing complications of Diabetes Mellitus. This study found that patients with much higher incomes were able to buy and manage food according to their diet. This is in line with Nazemi, T. (2015) in research on diabetes prevention and management, revealing that socioeconomic factors, namely income, can affect the management of diabetes complications prevention. Acceptance of a will is related to the ability of people in examination, feeding, and giving treatment.

Based on the results of research carried out by Nurhasanah, Maulida, & Erawati, (2021) about the relationship between knowledge of pregnant women about COVID-19 with the behavior of preventing transmission of Covid-19. Stating that the population of all pregnant women at the Arsy Media Clinic, Cirebon Regency is 1,440 pregnant women. Sampling using accidental sampling as many as 40 respondents.

4. Conclusions and suggestions

Based on age category, the majority of respondents are aged 21 - 34 years. Based on the educational background of the respondents, the respondents who have the most educational background are high school graduates. Respondents also have the most work background are housewives. Based on the results of research on knowledge about Covid-19, respondents have good knowledge of Covid-19. From the results of research on the behavior of pregnant women at the Grabag I Health Center towards the prevention of Covid-19, respondents have good preventive behavior against Covid-19. Based on these two results, there is a relationship between the respondent's knowledge about Covid-19 and the respondent's behavior about preventing Covid-19 in pregnant women at the Grabag I Health Center. This can be seen from the processed data, which results in a correlation of r = 0.650 and p-value (r - table) = 0.212 (p - value < 0.05).

5. References

Angesti, E. P. (2020). *Hubungan antara tingkat kecemasan dan kesiapan persalinan ibu hamil trimester 3 di masa pandemic COVID-19*. Surabaya: Universitas Airlangga.

Aritonang Juneris, dkk. (2020). Peningkatan Pemahaman Kesehatan Pada Ibu Hamil Dalam Upaya Pencegahan COVID-19. Jurnal Solma Vol. 09, No. 2,pp. 261-269:2020. Universitas Sari Mutiara Indonesia: Medan.

Corneles, S., & Losu, F. (2015). Hubungan Tingkat Pendidikan Dengan Pengetahuan Ibu Hamil Tentang Kehamilan Risiko Tinggi. Jurnal Ilmiah Bidan.

Dewi Rosmala, dkk. (2020). Pengetahuan Dan Sikap Ibu Hamil Trimester III Terhadap Pencegahan Covid-19. Health Information : Jurnal Penelitian 12(2):131-41.Universitas Nasional Jakarta: Jakarta.

Harahap Reni Agustina, (2020 Pengaruh Faktor Presdisposing, Enabeling Dan Reinforsing Terhadap Pemberian Imunisasi Hepatitis B Pada Bayi Di Puskesmas Bagan Batu Kecamatan Bagan Sinembah Kabupaten Rokan Hilir.Universitas Islam Negri Sumatra Utara: Sumatra Utara.

Hardianti Evi, dkk. (2021). Hubunan Pengetahuan Ibu Hamil Dengan Perilaku Pencegahan Penularan Covid-19 Di Wilayah Kerja Puskesmas Pedamaran Kecamatan Pekaitan Kabupaten Rokan Hilir. Jurnal Ilmiah Ilmu Kesehatan. Universitas Pahlawan Tuanku Tambusai: Riau.

Mulyani Endah, dkk. (2020). Penguatan Pemahaman Ibu Hamil Tentang Pencegahan Penularan Covid-19 Selama Kehamilan. Universitas Muhammadiyah Gersik: Gersik.

Notoatmodjo. (2010). Metodologi Penelitian Kesehatan.

Notoatmodjo. (2012). Metode Penelitian Kesehatan (R. Cipta, Ed.). Jakarta.

Notoatmodjo, S. (2011). Kesehatan Masyarakat Ilmu dan seni.

Nurhasanah, Maulida, D. A., & Erawati. (2021). Hubungan pengetahuan ibu hamil tentang covid-19 dengan perilaku pencegahan penularan covit-19. Jurnal Kebidanan

Malahayati, 7(3), 432–440.

Nursalam. (2015). MANAJEMEN KEPERAWATAN Aplikasi dalam Praktik Keperawatan Profesional Edisi 3.

Padlilah Rahmi, dkk. (2020). Komplikasi SARS-COV, MERS, SARS-COV-2, Dalam Kehamilan: A Review. Jurnal Kebidanan Indonesia, Vol 11 No.2 Juli 2020(55-60). Universitas Borneo Tarakan: Kalimantan.

Parwanto MLE, (2020). Virus Corona(2021-nCoV) Penyebab CPVID-19. Jurnal Biomedika Dan Kesehatan. Departemen Biologi, Fakultas Kedokteran Universitas Trisakti, Indonesia: Jakarta.

Pradana Anung Ahadi, dkk. (2020). Pengaruh Kebijakan Social Distansing Pada Wabah Covid-19 Terhadap Kelompok Rentan DI Indonesia. Jurnal Kebijakan Kesehatan Indonesia. STIKes Mitra Keluarga: Bekasi.

Putri Ririn Noviyanti,(2020). Indonesia Dalam Menghadapi Pandemi Covid-19. Jurnal Ilmiah Universitas Batanghari Jambi, 20(2), Juli 2020, 705-709. Universitas Kader Bangsa: Palembang.

Rahman Nurdianto, A., Fauzi Nurdianto, R., & Ayu Febiyanti, D. (2020). Studi Klinis Infeksi COVID-19 pada Kehamilan dengan Insulin Dependent Diabetes Mellitus (IDDM). Online) Jurnal Ilmiah Kedokteran Wijaya Kusuma, 9(2), 229–244.

Rajaratenam, S. G., Martini, R. D., & Lipoeto, N. I. (2019). Hubungan Tingkat Pengetahuan dan Sikap dengan Tindakan Pencegahan Osteoporosis pada Wanita Usila di Kelurahan Jati. Jurnal Kesehatan Andalas, 3(2), 225–228. https://doi.org/10.25077/jka.v3i2.96

Ramadhanti, D. (2016). Gambaran Pengetahuan Perawat Tentang Manajemen Pelayanan Hospital Homecare Di RSUD AL-IHSAN Provinsi Jawa Barat.

Ratu Maria Magdalena Kurnia Deksiana, dkk. (2020). Hubungan Pengetahuan Ibu Tentang GiZi, Riwayat Penyakit Infeksi Dan Personal Hygiene Dengan Pola Konsumsi Ibu Hamil Di Daerah Lokus Stunting Kabupaten Timor Tengah Utara. Jurnal pangan Gizi Dan Kesehatan 9 (2):1070-80. Universitas Nusa Cendana.

Riskia Mira, dkk. (2020). Hubungan Pengetahuan Dengan Perilaku Ibu Hamil Dalam Menjalani Kehamilan Selama Masa Pendemi Covid-19. Jurnal Keperawatan Malang Volume 5, No 2, 2020, 80-86. Universitas Syaiah Kuala Banda Aceh: Aceh.

Rohmah Martina Kurnia & Arif Rahman Nurdianto, (2020) Corona Virus Disease 2019 (Covid-19) Pada Wanita Hamil Dan Bayi: Sebuah Tinjauan Literatur. Jurnal of Clinical Medicine. STIKES Rumah Sakit Anwar Medika Sidoarjo: Sidoarjo.

Sagala Sri Handayani, dkk. (2020). Hubungan Pengetahuan Dan Sikap Masyarakat Terhadap Covid-19; A Literature Review. Jurnal Menara Medika. STIKes Piala Sakti Pariaman: Sumatra.

Sari, L. N. I., & Budiono, I. (2021). Perilaku Pencegahan Penularan Covid-19 Pada Ibu Hamil. Indonesian Journal of Public Health and Nutrition, 1(1), 124–132. https://doi.org/10.15294/ijphn.v1i1.45433

Siregar Ronni Naudur, dkk. (2020). Pemahaman Ibu Hamil Tentang Upaya Pencegahan Infeksi Covid-19 Selama Kehamilan. Journal Of Healthcare Technology and Medicine vol. 6 No. 2. Universitas Sari Mutiara Indonesia: Sumatra Utara.

Susilo, A., Rumende, C. M., Pitoyo, C. W., Santoso, W. D., Yulianti, M., Herikurniawan, H., … Yunihastuti, E. (2020). Coronavirus Disease 2019: Tinjauan Literatur Terkini. Jurnal Penyakit Dalam Indonesia, 7(1), 45. https://doi.org/10.7454/jpdi.v7i1.415

Tentang, H., Di, P. C.-, Amd, H., Tahun, K. E. B., Tentang, H., Di, P. C.-, & Keb, A. M. D. (2020). UNIVERSITAS GUNADARMA HUBUNGAN PENGETAHUAN TERHADAP SIKAP IBU. 1–10.

Usman Sukesih, dkk. (2020). Pengetahuan Dan Sikap Mahasiswa Kesehatan Tentang Pencegahan Covid-19 Di Indonesia. Jurnal Ilmu Keperawatan Dan Kebidanan. Universitas Muhammadiyah Kudus: Kudus.

Wahyuni, I., Hasanah, U., Yanti, N., & Putra, I. D. (2020). Pemberdayaan Ibu Pasca Bersalin , Keluarga , tentang PHBS , Perawatan Ibu dan Bayi serta Pencegahan Penularan COVID-19. ABDIMAS-HIP Vol 1 No 2 Agustus 2020, 1(2), 78–87.

Yati Nurhayati. (2018). Hubungan Pengetahuan Ibu Hamil,. Jurnal Kesehatan Indra Husada, 6(1), 39.

Yunus Nur Rohim & Annissa Reski, (2020). Kebijakan Pemberlakuan Lockdown Sebagai Antisipasi Penyebaran Corona Virus Covid-19. Jurnal Sosial & Budaya Syar-i. Universitas Islam Negri Syarif Hidayatullah Jakarta: Jakarta.