Pregnant Mothers Perception About Covid-19 to Compliance with the Use of Mask at Mungkid Magelang Health Center

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Abstract

Pregnant women are a susceptible group to covid-19 infection due to pregnant women, in general, are vulnerable to respiratory infection. One of the prevention measures is the use of masks which will help to protect against and limit the spread of Covid-19. This study contributes to identifying the relationship between perception and mask use adherence among pregnant women in Mungkin Public Health, Magelang. A cross-sectional study with 87 pregnant women was selected using the random sampling technique in Mungkin Health Center, Magelang. The questionnaire used was a perception questionnaire about Covid-19 with a validity test of r > 0.3 and a validity test of 0.721. The compliance questionnaire had a validity value of r table 0.3 and a validity test of 0.723, and the data were analyzed using the Spearman statistical test. The majority of respondents were aged 20–35 years, working (65.5%), with gestational age in the second trimester (63.2%), and in secondary education (82.8%). Most of the respondents have a moderate perception regarding mask use during Covid-19 (56.3%), and 23% have a good perception. Regarding adherence to mask use, 62 (71%) respondents have moderate adherence, and 18 (20%) have poor adherence. There is a statistically significant relationship between perception and mask use adherence among pregnant women in Magelang (p = 0.000). Since there is an association between perception and mask use adherence, interventions to promote mask use are needed among pregnant women.

Keywords: Perception; Covid-19; Adherence; Pregnant Women; Mask Use

1. Introduction

Pregnancy is a physiological state that makes women more susceptible to viral infections (Abou Ghayda, 2020). There are several complications that arise after the onset of COVID-19 (Corona Virus Disease-19) infection, namely fetal distress, premature rupture of membranes, and pneumonia. The COVID-19 pandemic is also a concern for pregnant women because this situation not only has an effect on their physical and mental health (Yee et al., 2020). Pregnant women have now become a population at risk in the era of the COVID-19 pandemic. With an unstable immune state or experiencing low immunity (immunocompromised), as well as physiological changes and adaptations during pregnancy, pregnant women become more susceptible to being infected with COVID-19 (Liu et al. 2020).

Indonesia has become one of the countries experiencing the COVID-19 pandemic since the end of 2019. The World Health Organization (WHO) stated on March 11, 2020, that the novel coronavirus (COVID-19) has officially become a global pandemic (Djalante, 2020). Indonesia is also included in the category of community transmission. In Central Java, the number of accumulated COVID-19 cases on September 15, 2021, Magelang Regency has the highest number of Covid-19 patients, with 65 cases on May 26, 2020 (Sutiningsih, 2021). The virus is considered a real epidemic, causing widespread concern and potential death. The principles of preventing and controlling COVID-19 in the community are to use masks when in public areas or when interacting with other people whose health status is unknown (Martinelli, 2021).

Maternal management and fetal safety are crucial due to the virus's rapid spread. Pregnant women must have the right perception of the pandemic to comply with health protocols and avoid misguided information (Rezaei, 2021). Perceptions related to Covid-19 vary widely. Public perceptions regarding Covid-19 can be good, as well as the influence of health workers themselves in providing information related to the spread, prevention, and handling of Covid-19 and the

government website is the main source of information about Covid-19 (Bhagavathula, 2020). One of the efforts to break the Covid-19 chain is by providing correct information related to Covid-19 because not all people understand and know the spread, prevention, and proper handling related to Covid-19 so. Later it is hoped that people will have more information and have the correct perception. related to Covid-19 (Dhama, 2020).

There have been several previous studies related to the prevention of Covid-19 in pregnant women, including research conducted in Denpasar City. Other research explains that the effects of the Covid 19 pandemic have an impact on perceptions of breastfeeding in pregnant women (). This study contributes to other studies also stating that in addition to knowledge, it turns out that age and last education are also related to the compliance of pregnant women in carrying out health protocols. This is confirmed by research, which shows that factors related to compliance with the use of masks in an effort to prevent Covid-19 are age, the latest education, and knowledge. Perception greatly influences the public in implementing government policies regarding the prevention of coronavirus disease 2019 (Covid-19).

2. Method

This is a cross-sectional descriptive study to assess the relationship between perception and mask use among pregnant women in Mungkin Health Center, Magelang, Central Jawa Province. The respondents are 87 pregnant women selected using a proportional random sampling technique. The respondents were taken randomly using Microsoft Excel with the formula =RANDBETWEEN and then given an opening and closing bracket. After the sample was randomized, 87 pregnant women respondents numbered 1-87 were taken from a total population of 100 pregnant women.

Magelang The questionnaire used was a perception questionnaire about COVID-19 with a validity test of r and a validity test of 0.721. The compliance questionnaire had a validity value of r table 0.3 and a validity test of 0.723, and the data were analyzed using the Spearman statistical test.

Questionnaires are used for data collection. The covid-19 perception questionnaire is developed by Willy, 2021, the validity is > 0.3, and the reliability is 0.721. A mask adherence questionnaire is developed by Purnamawayanti, 2021, and the validity is 0.3 and a validity test of 0.723. Data was collected using g-form and distributed using WhatsApp group by the researcher Data collection techniques in this study using cross-sectional. This study uses a questionnaire with Google Forms through the WhatsApp group. The questionnaire used is the Perception Questionnaire About Covid-

19 and a questionnaire on adherence to wearing masks in pregnant women. The sampling technique used in this study was Proportional Random Sampling with a population of 100 pregnant women in the Mungkid Magelang Health Center and a total sample of 87 pregnant women. The inclusion criteria were set as follows: pregnant women who are in the working area of the Mungkid Health Center in Magelang are willing to be respondents, understand how to fill out the Google form, and are willing to fill out an online questionnaire. The exclusion criteria for this study were pregnant women who were confirmed to have COVID-19, so they could not be observed because they had to be isolated and did not complete the Google form. The sample in this study used the Slovin formula with a 5% confidence level and a population of 100, resulting in 80 respondents. Corrections to the sample size were made to anticipate subjects dropping out, which were calculated using a formula so they could add up. A number of subjects so that the sample size is fulfilled, which results in 86.8, rounded up to 87 respondents. The data analyzed for the Spearman statistical test and ethical approvement is gained from Komite Etik Penelitian Kesehatan (KEPK) FIKES UNIMMA number 008/KEPK-FIKES/II.3.AU/F/2022.

3. Results and Discussion

The characteristics of the respondents are as follows in Table 1. Table 1 shows that 100% (n=87) of respondents within the range 20-30 years old, the majority are as working mothers 65.5% (n=57), the majority in the 2nd trimester of gestational age 63.2% (n=55). The majority of respondents graduated from senior high school, 82.8% (n=4).

Table 1. Frequency and Percentage Distribution of the Adolescent Participants Grouped According to Age Range

Characteristics	Frequency (f)	Percentage (%)
Age		
<20 Years	0	0
20-35 Years	87	100
>35 Years	0	0
Work		
Working	57	65.5
Doesn't work	30	34.5
Gestational Age		
Trimester I	17	19.5
Trimester II	55	63.2
Trimester III	15	17.2
Education		
Elementary (including Junior High School)	11	12.6
Senior High School	72	82.8
College	4	4.6

At the age of 35, a woman has only a 12% chance of getting pregnant, and according to a study, in her 40s, the number of pregnancies decreases to 7%. A high risk of pregnancy will occur if pregnant women are in the age group <20>35 years, so it is said that age to be unsafe because if they reproduce at the age <20>35 years, the organ conditions female reproduction has decreased ability to reproduce (Delbaere, 2020). In this study, the age of all pregnant women was 20-35 years, so the characteristics of the respondents were in accordance with this study. So it is in line with this study that the age of 20-35 years pregnant women have a pretty good perception. The older the gestational age of the mother, the more concerned about what pregnancy is and how to better care for her pregnancy. In addition to pregnancy care by visiting/coming to health services, mothers do more often with increasing gestational age in each trimester as well as the behavior of pregnant women following health protocols to prevent transmission of Covid-19 (Meaney, 2022).

Work is also included as a physical activity that can be done with notes that it is not too heavy because it has benefits. However, they are not allowed to work too hard and too heavy because it will lead to unwanted things (miscarriage). Pregnancy is an event that changes a woman's life and significantly affects the amount of their physical activity, so that it becomes a challenge for pregnant women (Liu, 2019). The process of pregnancy involves various physiological changes, including physical, musculoskeletal, and circulatory changes. The feeling of discomfort in pregnant women is very pronounced if the pregnant woman has entered the 3rd trimester, such as pain up to 70% in the low back pain area, but if in the 2nd trimester, the pain has not appeared intensely and can still be used for physical activity (work), Physical activity or exercise can actually reduce the pain scale in pregnant women (Manyozo, 2019). Physical activity is one of the triggers for constipation.

The results of the research showed that the majority of working pregnant women get more information about Covid-19 prevention by complying with existing health protocols. This is also reinforced by the statement of the Indonesian Pediatric Society that pregnant women who work will get a lot of socialization that can be done to prevent Covid-19 infection through social media, mass media, both print and electronic, brochures, banners in every corner of the city, in factories and offices (Wang et al., 2022). Compared to pregnant women who do not work and the majority are only housewives, those who have experience receiving information are only household members and neighbors (Vedam, 2019).

Education is the most important. The level of education also has a relationship with the level of health of pregnant women and the easier it is for the mother to receive health information. The level of education is also related to a person's knowledge and ability to understand the health information he receives (Saud, Mashud & Ida, 2020). This study is in line with research conducted at the Maron Health Center, Probolinggo Regency, which stated that the majority of respondents were at the secondary education level, namely SMA/SMK, and had a sufficient level of compliance. Education will influence pregnant women in choosing, evaluating, and deciding something that is good for their own health and pregnancy.

Table 2 indicates that the majority of the respondents have a moderate level of perception regarding Covid-19. This result is in line with research with other research that most of the respondents have a moderate level of perception about Covid 19. However, another research found a different result. Most respondents (99.29%) have a good perception of Covid-19.

Table 2. The pregnant women's perception of Covid-19

Perception level	Frequency (f)	Percentage (%)
Good	20	23.0
Moderate	49	56.3
Low	18	20.7

Perception is the experience of an object, event, or relationship that is obtained by inferring information, and then someone interprets what he has got. The various factors that will give rise to a person's perception of these factors are external factors and internal factors. Perception is the ability of the brain to translate stimuli that enter the human senses. Other factors that play a role in perception are the perceived object, the senses, nerves, and also the nervous system, which is a tool for receiving stimuli, as well as the attention needed to make perception.

This study is in line with research conducted in Semarang, which found that there was a fairly good relationship between perceptions about Covid-19 and compliance with health protocols carried out by employees. This study is also in line with research conducted on adolescents at SMK Negeri 2 Tenggarong, with the results that there is a significant relationship between perceptions about Covid-19 and adherence to Covid-19 prevention health protocols (Ningsih, Eka & Danal, 2020). So, from the results of the research above, it can be concluded that perception is also one of the factors that pregnant women are able to comply with health protocols or not their health, especially the use of masks.

Table 3 shows that the compliance level of the majority of masks is at a sufficient level of compliance of 71.3%. This study is in line with research conducted on pregnant women in Denpasar in 2020 with a sample of 97 pregnant women, and the results showed that the majority of respondents were quite obedient in wearing masks with a percentage of (67.0%). In line with research conducted in Parepare City in 2021 with a total of 94 respondents, the results showed that the majority of respondents had a fairly obedient level of compliance of 56 respondents with a percentage (59.6%).

Table 3. Compliance Level of Mask Wear

Compliance level	Frequency (f)	Percentage (%)
Good	7	8
Moderate	62	71.3
Low	18	20.7

Compliance with the use of masks is very important to minimize the spread of Covid-19 even though people have been vaccinated. There are several factors that can also reduce the spread of Covid-19, namely: Implementing physical distancing (maintaining a minimum distance of 1 meter from other people), using a mask when doing activities in public or in crowds, regularly washing hands with water and soap/using a hand sanitizer that contains alcohol (Fakhira, 2021). 60%, especially after activities outside the home or in public places, do not touch (eyes, mouth, and nose) before washing hands, increase immunity with a healthy lifestyle, avoid contact with Covid-19 patients, cover their mouth and nose when sneezing, and keep the environment and frequently touched objects clean (Pangestu, 2021).

In the table above, there are 18 pregnant women who are less obedient with a percentage (20.7%). Not all pregnant women are able to comply with the call to wear masks at this time. The non-compliance of pregnant women in wearing masks outside the home can be caused by pregnant women not being used to changing health awareness or behavior properly because changing health behavior takes a long time until they are aware of how important it is to make that habit. Compliance is also influenced by the environment as one of the factors. An environment that does not support people to behave in a healthy manner (Rubaltelli, 2020). Compliance with wearing masks includes behavioral changes that can be done by previously conducting health education to the community. This further involves cross-sectoral collaboration, such as the operation of wearing masks so that people can comply with health protocols, one of which is the use of masks outside the home (Hutasoit, Sitorus & Ginting, 2022).

Compliance is also a term to describe the behavior of a community group in using masks. Compliance is included in positive behavior that can be shown by the community when people use masks. There are several factors that can affect compliance, such as knowledge, perception, and belief in disease control and prevention efforts, quality of health instructions, environmental variables, and ability to access resources (Kim, 2020).

The use of masks is a comprehensive effort in the context of prevention and control that can limit the spread of diseases that can attack the respiratory tract caused by Covid-19. Masks can be used both to protect healthy people and also to infected people to prevent further transmission. Masks can provide very effective protection against respiratory tract infections in the community. Besides that, masks can also prevent the entry of droplets into the body and other people.

Table 4 shows that the majority of respondents perceive sufficient, and the level of compliance is sufficient for as many as 45 pregnant women (51.7%). The statistical test using Spearman rank shows that perception is significantly associated with mask use adherence in pregnant women (p=0.000, r=0.724). The correlation coefficient in this study was found to be 0.724 with a positive correlation direction. Based on these results, it can be concluded that the level of correlation between the level of perception and the level of compliance has a strong relationship. In this study, the direction of the correlation is positive, which indicates that the relationship between the two variables is unidirectional. That is, if the X variable increases, the Y variable also increases. From the study, it can be concluded that the better the level of perception of pregnant women about Covid-19, the more obedient they are to the use of masks for pregnant women at the Mungkid Magelang Health Center.

In this study, the results showed that there was a relationship between perception and compliance with health protocols, including the use of masks for the prevention and transmission of Covid-19. This research is also supported by research found that knowledge also affects perceptions and can result in the compliance of pregnant women in wearing masks.

The use of masks is very effective in preventing the transmission of Covid-19 in the community and reducing the damage caused by the pandemic. The results of this study are also in line with those carried out, which shows that 45 respondents with sufficient perception and sufficient preventive behavior have the result that there is a significant relationship between knowledge and perception of Covid-19 prevention behavior in the people of Banguntapan. According to in addition to factors of knowledge, perception, motivation, environment,

124

and belief in disease control and prevention efforts, there are also other factors that can affect compliance, namely age (Pishkhani, 2019). So, it can be concluded from the statements above that compliance with the use of masks is strongly influenced by a person's perception where that perception is obtained because of information that can affect a person's mind and then it will be poured into attitudes in complying with health protocols including the use of masks in pregnant women to prevent transmission and spread Covid-19.

Table 4. The correlation between the Perception Level of Pregnant Women About Covid-19 and Compliance with the Use of Masks

Compliance Level	Perception Level						P Value	R
	Good		Enough		Not Enough			
	f	%	f	%	f	%		
Good	3	3.4	4	4.6	0	0	0.000	0.724
Moderate	17	19.5	45	51.7	0	0		
Low	0	0	0	0	18	20.7		

This is also in line with research from which shows that the compliance of pregnant women complying with health protocols to prevent the spread of Covid-19, one of which is the perception of pregnant women themselves, which can be channeled by the attitude of pregnant women to take care of the mother and fetus (Mose, Zewdie & Sahle, 2022). This research is also in line with research the results obtained that 175 respondents believed in the existence of Covid-19 so that it could form a good perception from the community. When the community had a fairly good perception, the community would also have compliance with the use of masks and other health protocols to minimize the spread of Covid-19 sufficiently obey. Perception is the ability of the brain to translate incoming stimuli into the human senses. This is in line with the results of research conducted perception research on the Indonesian people in North Talikuran, where a good perception of preventing the coronavirus (Covid-19) outbreak will result in good preventive behavior as well (Ulma & Aziz, 2021). This can be seen in interviews conducted where in the results of these interviews, people believe that prevention of the Covid-19 virus is seen as being able to prevent the spread of the current outbreak. This is also in line with conducted on the people of Qatar, where the study showed that people there who have a good perception of the Covid-19 virus tend to carry out preventive behavior by wearing masks to avoid infection from the Covid-19 outbreak (Al-Jayyousi, 2022).

4. Conclusions and Suggestions

This study found that most of the respondents have a moderate level of perception (56.3%) and a moderate level of face mask use adherence (71.3%). This study also found the relationship between covid-19 perception and face mask adherence among pregnant women in Mungkid Health Center, Magelang, statistically significant (p=0.00, r=0.742). The majority of pregnant women are 20-35 years old. Thus, this study suggests improving health promotion and education about Covid-19 and face mask use among pregnant women as a vulnerable group being infected by Covid-19.

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