

## **KNOWLEDGE LEVEL OF PREGNANT WOMEN ABOUT 3M AFFECTS 3M IMPLEMENTATION COMPLIANCE DURING THE PANDEMIC**

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### **ABSTRACT**

Covid-19 can attack all walks of life, including pregnant women. Pregnant women are one of the vulnerable groups at risk of being infected with COVID-19 because during pregnancy physiological changes occur which result in a partial decrease in immunity and can cause serious impacts for pregnant women. Lack of knowledge will have an impact on non-compliance of pregnant women in implementing health protocols so that they are vulnerable to contracting Covid-19. The purpose of the study was to determine the effect of the level of knowledge of pregnant women about 3M on adherence to the application of 3M during the pandemic. Design The design of this study was a descriptive correlational study with a cross sectional approach. The sample in this study amounted to 66 respondents with purposive sampling technique. The study used a knowledge level questionnaire and 3M implementation compliance. Analysis of the data using the analysis of Descriptive Statistics and Chi Square. The results of this study indicate that the average age of the respondents is 29 years, the average is the 2nd pregnancy, the education level of the majority of respondents is high school education as many as 43 respondents (65.2%) and the level of knowledge of pregnant women about 3M in the good category is as much as 48 respondents (72.7%) and compliance with 3M implementation in the obedient category were 59 respondents (89.4%). Conclusion There is a significant relationship between the level of knowledge of pregnant women about 3M with adherence to the application of 3M during the pandemic ( $p = 0.01$ ).

Keywords: 3M compliance; 3M knowledge, pandemic; pregnancy

### **INTRODUCTION**

Corona virus is a type of virus that is highly contagious through droplets that causes respiratory tract infections, ranging from the common cold to serious diseases such as Middle East Respiratory Syndrome (MERS) and Severe Acute Respiratory Syndrome (Ministry of Health, 2020). Covid-19 was first reported in Wuhan, Hubei, China in December 2019, and on March 11, 2020 the World Health Organization (WHO) declared that COVID-19 had become a worldwide pandemic disease. The first Covid-19 was reported in Indonesia on March 2, 2020 with two cases. Data on November 2, 2020 showed that there were 415,402 confirmed cases of COVID-19 in Indonesia, 55,792 cases were treated, 14,044 cases died, 345,566 cases recovered. In Central Java, there were 35,742 confirmed cases, 3,684 confirmed: treated, 29,427 confirmed: cured, 2,631 confirmed: died (Central Java Provincial Health Office, 2020).

Kendal Regency itself is in the red zone for Covid-19 cases, for data on November 2, 2020, there are 1,583 confirmed cases of COVID-19 in Kendal Regency, 1,296 cases have recovered, 67 cases have been treated, 170 cases have been self-isolated. 70 cases died. There are 21 confirmed cases in Kangkung District, 1 probable case, 15 suspected cases, 539 cases of close contact and 137 cases of travellers. Covid-19 data itself in Jungsemi Village which has 2 confirmed cases, there are 3 suspected cases (Kendal district health office, 2020)

Covid-19 disease can attack all walks of life, including pregnant women. Pregnant women are listed as one of the vulnerable groups at risk of being infected with COVID-19 because during pregnancy physiological changes occur which result in a decrease in partial immunity and can cause serious impacts for pregnant women (Liang & Acharya, 2020). Until now, knowledge about COVID-19 infection in relation to pregnancy and the fetus is still limited and no recommendations have been issued by WHO specifically for the treatment of pregnant women with COVID-19.

Based on these limited data and several examples of cases in the treatment of previous Coronaviruses (SARS-CoV and MERS-CoV) and several cases of COVID-19, it is believed that pregnant women with comorbidities have a higher risk of serious illness, morbidity and mortality compared to the general population. Side effects on the fetus in the form of preterm delivery have also been reported in pregnant women with COVID-19 infection. However, this information is very limited and it is not clear whether these complications are associated with infection in the mother (Aziz et al, 2020).

One of the efforts we can do in preventing and transmitting Covid-19 is to apply disciplined living behavior. By taking the 3M steps (wearing masks, washing hands, maintaining distance) as an effort to prevent and break the chain of transmission of COVID-19 (WHO, 2020). The use of masks, washing hands and keeping a distance are the earliest anticipatory steps to prevent the spread of the corona virus. The use of 3 layers of masks, washing hands with soap and running water and maintaining social distance should be done by the whole community including pregnant women to stay healthy (Hidayat & Noeraida, 2020). However, not all pregnant women know and understand the importance of this.

Therefore, it is necessary to have socialization and intensive health promotion efforts so that people are aware that taking care of themselves by wearing masks is an effort to break the chain of the spread of COVID-19 and the importance of implementing policies that have been set by the government and getting used to new life. Directorate General of Disease Prevention and Control, 2020). Washing hands with soap and running water is mandatory for pregnant women every time they are active. Unclean water contains a lot of germs and bacteria that cause disease, and when used, germs will transfer to the hands. At the time of eating, germs quickly enter the body, which can cause disease. Soap can clean dirt and kill germs, because without soap dirt and germs are still left on hands (Kemkesh RI, 2020).

Social distancing is a program that aims to prevent the spread of COVID-19 as early as possible. This program invites the public to limit and reduce as early as possible visiting crowded places that have the potential to be infected with COVID-19 (Hidayat & Noeraida, 2020). The public is also advised to reduce direct contact with other people. The community is also invited to get used to a healthy life. Social Distancing means that people avoid physical touch, such as shaking hands and maintaining a distance of at least 1 meter when interacting with other people (Adrian, 2020). Good practice of social distancing will greatly help the spread of the COVID-19 virus. The implementation of social distancing starting from staying at home to temporary closures such as places of worship, places to eat, shops, and other crowded places is expected to be able to break the chain of COVID-19 (Ramadhan, 2020).

3M compliance (wearing masks, washing hands, keeping a distance) is closely related to knowledge, where the better one's knowledge, the better the expectation of compliance. Compliance with the application of 3M (wearing masks, washing hands, maintaining distance) is highly expected to be implemented by the community, especially pregnant women because the impact is very large in preventing the transmission of COVID-19. In this COVID-19 pandemic situation, the government has made a policy of limiting almost all routine services, one example of which is maternal and neonatal health services and other health care facilities so that pregnant women delay carrying out pregnancy checks (Ministry of Health of the Republic of Indonesia, 2020).

As for one of the factors causing maternal non-compliance in the implementation of the health protocol in this case 3M is the lack of knowledge of pregnant women. The results of the research by Sarah, Multazan and Gobel (2021) found that knowledge, social conditions, family, attitudes, psychology and motivation of pregnant women greatly influenced adherence to health protocols for pregnant women at the Bone-Bone Health Center, North Luwu Regency. The higher the mother's knowledge, the mother is able to take precautions and break the Covid-19 chain.

The level of community knowledge related to covid can encourage people to obey all health protocols that have been set. This is supported by Alam (2021) which states that public knowledge about COVID-19 is in the form of prevention, transmission, and efforts to implement health protocols, especially the use of masks and the consequences of not wearing masks. So someone who has knowledge of information, will be able to determine and make decisions in dealing with a problem and be able to determine how he should behave in dealing with the disease.

Based on the results of a preliminary study through interviews and observations of 5 pregnant women, it was found that 2 pregnant women said they knew and complied with health protocols by implementing 3M in their daily activities. However, the steps for washing hands are not as recommended. Meanwhile, 3 pregnant women (60%) said they did not know about the proper and correct application of the 3 M. Based on this phenomenon, researchers are interested in conducting research on "The effect of knowledge level on pregnant women's adherence to the application of 3 M during the pandemic. The purpose of this study was to determine the effect of the level of knowledge on the compliance of pregnant women regarding the application of 3 M during the pandemic.

## **METHOD**

The type of this research is quantitative research with correlational descriptive design and cross sectional approach. The sampling technique used purposive sampling with a sample of 66 pregnant women respondents at the Kangkung Health Center 1. The data collection tool used a questionnaire about knowledge of pregnant women about 3M and a questionnaire on compliance with the application of 3M. The research was carried out at the Kangkung 1 Health Center from October 2020 to June 2021.

## RESULTS

Table 1.  
Age of Responden (n=66)

Mean	Median	Standar Deviasi	Minimum	Maximum
29.71	29.00	3.898	21	38

Table 1. Shows that the average age of the respondents is 29 years.

Table 2.  
Education level Of Respondent (n=66)

Education Level	f	%
Elementary dan Junior Hight School	18	27,3
Senior Hight School	43	65,2
Hight Education	5	7,6

Table 2. Shows that the majority of the last education response is high school as many as 43 respondents (65.2%).

Table 3  
Knowledge Level of Pregnant Women about 3M (n=66)

Knowledge Level of Pregnant Women about 3M	f	%
Good	48	72,7
Pretty Good	5	7,6
Not Good	13	19,7

Table 3. Shows that most of the knowledge of pregnant women about 3M is in the good category, as many as 48 respondents (72.7%).

Table 4.  
Implementation compliance of 3M (n=66)

Implementation compliance of 3M	f	%
Compliance	59	89,4
Not Compliance	7	10,6

Table 4. shows that most of the compliance with 3M implementation is in the compliant category as many as 59 respondents (89.4%).

Table 5

The Relationship between The Knowledge Level of Pregnant Women about 3M and Compliance with 3M Implementation during the Covid-19 Pandemic (n=66)

The Knowledge Level of Pregnant Women about 3M	Implementation Compliance of 3M				Total		p value
	Compliance		Not Compliance				
	f	%	f	%	f	%	
	Good	46	69,7	2	3,0	48	
Pretty Good	3	4,5	2	3,0	5	7,6	0,01
Not Good	10	15,2	3	4,6	13	19,7	

Table 5, It shows that most of the respondents have good knowledge level of pregnant women about 3M and compliance with 3M implementation in the obedient category as many as 46 respondents (69.7%). The results of the analysis test showed that there was a significant relationship between the level of knowledge and the compliance of pregnant women in the application of 3M with  $p$  value= 0.01.

## **DISCUSSION**

### **Characteristics of Respondents**

The results of this study indicate that the average age of the respondents is 29 years. The age factor affects a person's grasping power and mindset, the older he gets, the more his grasping power and mindset will develop so that the knowledge gained is getting better (Notoadmojo, 2010). This is in line with Handayani's research (2020) that age is one of the factors that can describe a person's maturity both physically, psychologically and socially. So a person's age affects that person's mindset.

The age category of 20-35 years is also said to be a healthy productive age, which makes pregnant women think more rationally than the age that is classified as a risk factor. Pregnant women of healthy reproductive age think more rationally and are allowed to have knowledge and enthusiasm and motivation in prenatal care and prevention efforts against the risk of being exposed to Covid-19 infection. The results of this study obtained data that the majority of pregnant women's education at the Kangkung 1 Health Center was high school with a total of 48 respondents (65.2%). This is in line with the research by Setyorini and Wulandari (2017) which states that the higher a person's education, the more they try to access information related to their health so that their knowledge increases and they have more insight, while someone with a low level of education has low access to information related to health. sometimes do not know the situation and developments that occur in the world related to health. According to Zulfandi and Ariyanti, education is an effort to develop personality and abilities formally and informally and lasts a lifetime. In addition, the higher a person's education level, the easier it is to receive and digest and understand information.

### **Knowledge Level of Pregnant Women About 3M**

The results of this study obtained data that the majority of pregnant women at the Kangkung 1 Health Center had a good level of knowledge as many as 48 respondents (72.7%). Knowledge is one of the most important things to consider in the context of handling COVID-19 cases. Public knowledge, especially pregnant women, in preventing the transmission and spread of the SARS-CoV-2 virus is very useful in suppressing the transmission rate of the virus (Law, Leung, & Xu, 2020). The results of this study are in line with Arintonang's research (2020) that knowledge is the most important thing in determining a person's actions or behavior, if someone has low knowledge about something then dominant has bad attitudes and actions too. The existence of the COVID-19 pandemic has forced the public to seek information about this disease so that they are able to take preventive steps so that they are not infected. In addition, the development of information technology provides various kinds of mass media that can provide information and ease of access to information affects public knowledge about the latest information, in this case including a good level of knowledge of pregnant women about preventing transmission and breaking the Covid-19 chain through 3M.



### **Obedience of Pregnant Women in the Application of 3M**

This study found that compliance with the application of 3M in pregnant women at the Kangkung 1 Health Center was in the obedient category as many as 59 respondents (89.4%). This study is in line with the research of Istiari et al (2021) who found that most of the respondents complied with the application of health protocols with the 4M indicator, which was 96 respondents. According to Kozier (2010) compliance is behavior that is in accordance with therapy and health recommendations that can start from heeding every aspect of the recommendation to complying with the plan. This research is in line with the research of Purnamasari and Anisa (2020) which shows that as many as 95.8% of the Wonosobo people have good behavior. The forms of behavior shown include compliance in using masks when outside the house, washing hands with soap or hand sanitizer frequently, avoiding crowds and maintaining social or physical distancing. Washing hands is one of the effective ways to kill germs, it is known that the COVID-19 virus can stick to body parts, especially hands that touch objects that have been infected by droplets (Depkes RI, 2020).

### **Relationship of Knowledge Level of Pregnant Women About 3M With 3M Implementation Compliance During a Pandemic.**

The results of the statistical analysis test showed that there was a significant relationship between the level of knowledge of pregnant women about 3M (Wearing Masks, Washing Hands, Keeping Distance) and Compliance with 3M Applications during the Pandemic. This is in line with research conducted by Sari and Atiqoh (2020) where the level of public knowledge affects compliance with using masks as an effort to prevent the spread of the corona virus. Masks that have good effectiveness against prevention are surgical masks, because they have a level of protection of 56% from nanometer-sized particles, but the public can still use cloth masks as an effort to prevent the transmission of covid-19 through splashing saliva/droplets (Purnamasari and Raharyani, 2010). 2020).

Compliance is a term that can describe people's behavior. The factors that affect compliance include knowledge, motivation, perception and belief in disease control and prevention efforts, environmental variables, quality of health instructions and the ability to access available information sources (Kozier, 2010; Wiranti, Sariatmi and Kusumastuti, 2020) . Notoatmodjo (2017) adds that a person's knowledge will shape the individual's behavior. In this case, pregnant women who have good knowledge will increase the obedient behavior of pregnant women towards the application of 3M.

### **CONCLUSION**

Characteristics of respondents indicate that the average age is 29 years and the majority have high school education (65.2%). The level of knowledge of pregnant women about 3M (wearing masks, washing hands, keeping a distance) shows that most of the knowledge of pregnant women about 3M is good, as many as 48 respondents (72.7%). Compliance with 3M implementation (wearing masks, washing hands, maintaining distance) shows that most of the compliance with 3M implementation is in the obedient category as many as 59 respondents (89.4%). There is a significant relationship between the level of knowledge of pregnant women about 3M (wearing a mask, washing hands, keeping a distance) with adherence to the application of 3M with a P value of 0.01 ( $p < 0.05$ ).

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