



The Relationship between Knowledge and Attitudes of Pregnant Women in RW 02, Sambiroto Village, Semarang, and the Risk of Transmission of COVID-19

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Abstract. *Coronavirus is an acute pneumonia infection. COVID-19 has spread widely in the world. Based on data from the World Health Organization (WHO), around 215 countries have been infected with COVID-19, including Indonesia. In an effort to reduce the spread of COVID-19, all countries in the world are trying to implement social distancing to prevent the risk of transmission of the virus. Having good knowledge about COVID-19 disease is very important so as not to cause an increase in the number of cases of COVID-19 disease. The important thing to know about COVID-19 is how COVID-19 is transmitted, how to prevent it, treatment, and complications that can occur if someone is infected with COVID-19. Good knowledge and a positive attitude from pregnant women in facing the COVID-19 pandemic can make pregnant women take real action to reduce the risk of contracting COVID-19 so that risks related to decreased immunity and health problems for the baby and mother are not disturbed. The aim of this research is to determine the relationship between knowledge and attitudes of pregnant women in RW 02, Sambiroto Village, Semarang regarding the risk of transmitting COVID-19. The research design used was descriptive correlation with a cross sectional approach, with a sample size of 25 respondents selected using the consecutive sampling method. Data were collected using a questionnaire and analyzed using the Chi Square test. The output of this research is publication in an International Journal.*

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INTRODUCTION

Novel coronavirus (COVID-19) is an acute pneumonia infection. COVID-19 has spread widely in the world. Based on data from *the World Health Organization* (WHO) and the Ministry of Health's *Public Health Emergency Operating Center* (PHEOC) as of June 20 2020, around 215 countries have been infected with COVID-19, including Indonesia. In an effort to reduce the spread of COVID-19, all countries in the world are trying to implement *social distancing* .

Currently, Indonesia is the country with the most COVID-19 cases in Southeast Asia. Based on information from the Ministry of Health of the Republic of Indonesia on 31 December 2020, the number of cases infected with COVID-19 in Indonesia reached 743,198 people, this number of cases may continue to increase.

Health data from the Semarang City Health Service shows the positive number for Covid has reached 14 . 441 and deaths reached 1 . 591 and for gender it shows 50.4% male and 49.6% female, where Semarang is one of the cities under monitoring considering the positive number is high. Here, one of the targets is vulnerable to COVID-19 are pregnant women who, if they are under stress and have a poor immune system, will be easily exposed. Therefore , prevention and risk of transmission must be anticipated with the knowledge and attitudes of the pregnant woman.

Socialization and directions regarding preventing COVID-19 have been disseminated to the entire population. Most people already know about the COVID-19 disease and how to prevent it. However, there are quite a few people who don't really understand how to prevent it. There are still many people who have not done what the government has directed (Bekti et al., 2020). The community here, including pregnant women, are at the forefront so that the spread of the new corona virus or SARS-CoV-2 does not become more widespread. Efforts that people can take include implementing clean and healthy living habits, wearing masks when traveling, and maintaining distance. "The community has a very big role to play in breaking the chain of transmission of COVID-19. Therefore , their abilities and understanding need to be improved so that people are willing to take preventive measures.

Pregnant women who have good knowledge about the COVID-19 disease This is very important so as not to cause an increase in the number of cases of COVID-19. Important things to know about COVID-19 disease is how COVID-19 is transmitted, how to prevent it, treat it, and what complications can occur if someone is infected with COVID-19 (Mona and Nailul, 2020). Knowledge is very important in determining a person's behavior, because knowledge forms beliefs which will then become the basis for a person in making decisions and determining behavior towards certain objects (Novita, NW, Yulastuti, C., & Narsih, S, 2014). In dealing with the COVID-19 outbreak, the participation of pregnant women and the community is very necessary in synergy with the government, so that they can break the chain of spread of COVID-19. Community attitude in responding to every government policy in breaking the chain of spread and transmission of COVID-19 is also very important.

Good knowledge and positive attitudes from pregnant women in facing the COVID-19 pandemic can make pregnant women take real action to reduce the risk of contracting COVID-19 so that risks related to decreased immunity and health problems for the baby and mother are not disturbed.

Therefore, the aim of this research is to determine the level of knowledge of pregnant women in RW 02 K, Sambiroto subdistrict, to find out the attitude of the community of pregnant women in RW 02 K, Sambiroto subdistrict towards COVID-19, to determine the level of risk of contracting COVID-19 among pregnant women in RW 02 K Sambiroto subdistrict and tested the relationship between knowledge and attitudes and the risk of contracting COVID-19 in pregnant women in RW 02 K, Sambiroto sub-district, Semarang.

LITERATURE REVIEW

Knowledge

Knowledge is the result of knowing, and this occurs after people sense a particular object. Sensing occurs through the five human senses, namely the senses of sight, hearing, smell, taste and touch. Most human knowledge is obtained through the eyes and ears (Notoatmodjo, 2014).

Attitude

According to the Oxford Advanced Learner Dictionary, attitude *comes* from the Italian *attitudine*, namely "Manner of placing or holding the body, and way of feeling, thinking or behaving". Campbell (1950) in the book Notoadmodjo (2003, p.29) stated that attitude is "A *syndrome of response consistency with regard to social objects*". This means that attitude is a set of consistent responses to social objects. In the book Notoadmodjo (2003, p.124) states that attitude is a reaction or response that is still closed from a person to a stimulus or object. According to Eagle and Chaiken (1993) in the book by A. Wawan and Dewi M. (2010, p.20) suggest that attitudes can be positioned as the result of evaluation of attitude objects which are expressed in cognitive, affective (emotion) and behavioral processes. From the definitions above, it shows that in general attitudes consist of cognitive components (ideas that are generally related to conversation and are learned), behavior (tends to influence appropriate and inappropriate responses) and emotions (causing consistent responses).

COVID-19

Coronaviruses are a large family of viruses that cause disease in humans and animals. In humans, it usually causes respiratory infections, from the common cold to serious illnesses such as *Middle East Respiratory Syndrome (MERS)* and *Severe Acute Respiratory Syndrome*

(SARS). The new type of coronavirus discovered in humans since an extraordinary incident emerged in Wuhan China, in December 2019, was then named *Severe Acute Respiratory Syndrome Coronavirus 2* (SARS-COV2), and causes Coronavirus Disease-2019 (COVID-19). Like other respiratory illnesses, COVID-19 can cause mild symptoms including runny nose, sore throat, cough and fever. About 80% of cases can recover without the need for special treatment. About 1 in every 6 people may suffer from severe illness, such as pneumonia or difficulty breathing, which usually comes on gradually. Although the death rate for this disease is still low (around 3%), older people, and people with pre-existing medical conditions (such as diabetes, high blood pressure and heart disease), are usually more susceptible to becoming ill. critical. Looking at developments to date, more than 50% of confirmed cases have been declared improved, and the recovery rate will continue to increase (Ministry of Health, 2020)

METHOD STUDY

Types of research

This research design uses analytical observational with a *cross sectional approach* which aims to find the relationship between the independent variable and the dependent variable, namely collecting data at once only once (Notoatmodjo, 2010). This research was conducted to determine the relationship between knowledge and attitudes of pregnant women regarding the risk of transmitting COVID-19.

Data collection

Data collection in this research was obtained by conducting interviews and filling out questionnaires. The knowledge and attitude questionnaire has been tested for validity and reliability. Meanwhile, the infection risk questionnaire uses a standard questionnaire taken from the General Guidebook for Facing the Covid-19 Pandemic for Regional Governments issued by the Ministry of Home Affairs (Ministry of Home Affairs, 2020).

The steps in data collection are carried out in the following stages:

- a. The researcher asked permission from the head of RW 02 K Sambiroto subdistrict to conduct research in the RW as well as permission for the subdistrict location for research activities to be carried out
- b. After obtaining permission, the researchers gathered pregnant women and explained the technicalities of the activity
- c. Pregnant women were asked to fill out a questionnaire
- d. After the pregnant women filled out the questionnaire, the researchers explained about COVID- 19 and the risks of preventing it

- e. After completing the activity, the researcher processed the data using SPSS

RESEARCH RESULT

This research was carried out in the Sambiroto Village RW 02 Semarang City area . There are 2 stages of research implementation, preparation and implementation. The preparation stage is determining the title of the research and survey introduction. Next, the researcher asked permission from the P3M department STIKES Kesdam IV/Diponegoro to arrange research permits in Sambiroto Village, Semarang City.

The sampling method is by technical method *purposive sampling* , from the results of the sampling, 25 people were obtained . Researcher take respondents Mother pregnant Which has in give instruction, Then researcher look forrespondents with method *door to door* , if find Mother pregnant then the researcher explains about this research, if you agree so the researcher gave the sheet *informed consent*, after done agreement respondents given questionnaire about knowledge And attitude form closed question.

Data from knowledge and attitude questionnaires that have been collected, Then entered And processed to in *masters table* so that makes it easier researcher For do analysis data. Furthermore in analysis in a way univariate and bivariate.

Univariate Analysis

Table 5.1 Distribution of Respondent Characteristics based on Age , Education and Parity

| Characteristics | Category | f | % |
|------------------|-------------------|----|----|
| Age | <20 and >35 years | 3 | 12 |
| | 20-35 years | 22 | 88 |
| Education | Base | 3 | 12 |
| | Intermediate | 18 | 72 |
| | Tall | 4 | 16 |
| Parity | Primi and Grande | 5 | 20 |
| | Multiparous | 20 | 80 |

Based on table 5.1 above, the characteristics based on the age of the majority of pregnant women are 20-35 years old as many as 22 respondents (88 %). Meanwhile, based on education level, the majority of respondents had a high school education, namely 18 respondents (72%). And the majority of multiparous pregnant women were 20 respondents (80%).

Table 5.2 Frequency Distribution of Knowledge, attitudes of pregnant women regarding the risk of transmitting COVID-19

| Variable | f | % |
|--------------------------------|-----------|------------|
| Knowledge | | |
| Not enough | 8 | 32 |
| Good | 17 | 68 |
| Attitude | | |
| Negative | 14 | 56 |
| Positive | 11 | 44 |
| Infection Risk Behavior | | |
| Does not support | 13 | 52 |
| Support | 12 | 48 |
| Total | 25 | 100 |

Based on table 5 . 2 above shows that the majority (68%) of respondents have good knowledge, the attitude of (56%) respondents has a negative attitude towards COVID-19 and the behavior of the majority (52%) of respondents does not support behavior regarding the risk of transmission of COVID-19.

Bivariate Analysis

This was done to see the relationship between the independent variables (knowledge and attitudes) and the dependent variable (transmission risk behavior) using *M ann W hitney's statistical test analysis* which was processed by a computerized system. The results of the bivariate analysis can be seen in the following table:

a. The Relationship between Knowledge and the Risk of Transmission of COVID-19

Table 5.3 Relationship between Knowledge and Infection Risk Behavior

| Behavior | | | | | | | | | |
|------------|------------|------|---------|------|-------|-----|---------|----|-----|
| Knowledge | No support | | Support | | Total | | p value | OR | |
| | n | % | n | % | n | % | | | |
| Not enough | 5 | 62.5 | 3 | 37.5 | 8 | 100 | 0.033 | | 5,9 |
| Good | 8 | 47.1 | 9 | 52.9 | 17 | 100 | | | |

From table 5.3 show that part big respondents who have less knowledge about COVID-19 And No support behavior risk of transmission (62.5 %), And almost part respondents own knowledge Which Good (52.9 %) as well support behavior at risk of infection .

Results test *chi square* with degrees trust 95% The p value = 0.033 was obtained, thus the result was obtainedthere is connection Which significant between knowledge with behavior at risk of transmitting COVID-19. With an OR estimate value of 5.9, this means Mother

pregnant Which own knowledge not enough 5.9 time more risky does not support transmission risk behavior .

b. The Relationship between Attitude and the Risk of Transmission of COVID-19

Table 5.4 Relationship between attitudes and infection risk behavior

| Behavior | | | | | | | | <i>p</i> <i>value</i> | OR |
|----------|------------|------|---------|------|-------|-----|-------|--------------------------|----|
| Attitude | No support | | Support | | Total | | | | |
| | n | % | n | % | n | % | | | |
| Negative | 8 | 57.1 | 6 | 42.9 | 14 | 100 | 0.010 | 3.8 | |
| Positive | 5 | 45.4 | 6 | 54.6 | 11 | 100 | | | |

From table 5.4 show that part big respondents who have a negative attitude towards the risk of transmitting COVID-19 (57.1 %), And part respondents own positive attitude (54.6 %) as well support behavior at risk of infection .

Results test *chi square* with degrees trust 95% The value obtained is $p=0.010$, thus the result is thatthere is connection Which significant between attitude with behavior at risk of transmitting COVID-19. With an OR estimate value of 3.8 It means Mother pregnant Which own negative attitude 3.8 time more risky does not support behavior towards the risk of transmission .

DISCUSSION

The Relationship between Knowledge and the Risk of Transmission of COVID-19

From the results of the *chi square test* with a confidence level of 95%, the value of $p = 0.033$ was obtained, thus the result was that there was a significant relationship between knowledge and risk behavior for transmitting COVID-19. Based on the research results, it was found that 5 people lacked knowledge with behavior that did not support the risk of transmission of 62.5% and behavior that supported the risk of transmission was 37.5%. It can be concluded that good knowledge tends to show supportive behavior, whereas sufficient knowledge shows unsupportive behavior.

From the research results, it was found that 8 people had good knowledge with behavior that did not support the risk of transmission as much as 47.1% and behavior that supported the risk of transmission was 52.9%. This happens because knowledge alone is not enough to support someone to behave well, because it must be balanced with positive attitudes and actions as well as support from people around them.

Knowledge is the most important thing in determining a person's actions or behavior (Aritonang, 2018). Good knowledge tends to show supportive behavior, whereas sufficient knowledge shows unsupportive behavior. The results of this study indicate that there is sufficient knowledge about COVID-19. This is due to many influencing factors, such as the husband's lack of support in getting his wife to vaccinate against COVID-19 as an early detection of the COVID-19 virus. Therefore, it is important to increase pregnant women's knowledge of the risk of transmitting COVID-19 so that pregnant women's knowledge increases so that they can carry out early detection of the COVID-19 virus.

Behavior that is based on knowledge will be better than behavior that is not based on knowledge. A person's behavior will change if they are given information about something that can change a person's behavior (Setiati, 2009). The results of this research are in line with the results of research conducted by Rosma Dewi (2020) which found that there was a significant relationship between knowledge and attitudes and risk behavior for transmitting COVID-19 in pregnant women.

The Relationship between Attitude and the Risk of Transmission of COVID-19

Based on the results of the *chi square test* with a confidence level of 95%, the value of $p = 0.010$ was obtained, thus the result was that there was a significant relationship between attitudes and behavior at the risk of transmitting COVID-19 in pregnant women. Based on the research results, it was found that 6 people had positive attitudes with behavior that supported the risk of transmission as much as 54.6% and behavior that did not support the risk of transmission as much as 45.4%. This can be concluded that a positive attitude alone is not enough to influence a person's behavior to breaking the chain of risk of transmission.

Meanwhile, there were 8 people with negative attitudes with 57.1% unsupportive behavior and 42.9% supportive behavior. It can be concluded that a positive attitude will influence a person's behavior in carrying out risk behaviors for transmitting COVID-19.

After carrying out a statistical test using the *Chi Square Test*, with a confidence measure of 95%, a value of $p = 0.010$ was obtained, thus the result was that there was a relationship between attitudes and behavior at the risk of transmitting COVID-19 to pregnant women.

One of the factors that influences a person's attitude is the influence of other people who are considered important. Other people around us are one of the social components that influence our attitude. Information provided by health workers or social media about implementing behavior to break the risk chain of transmission of COVID-19 can influence a person's attitude. Attitude is readiness or availability to act. Attitude is not yet an action or activity, but is a predisposition to a behavior (Wawan and Dewi, 2010). Attitude will determine the mindset of

pregnant women to be able to receive new information, a positive attitude will influence pregnant women to carry out behavior that is at risk of transmission. The attitudes of respondents, most of whom are in the positive category, can influence behavior in the process of transmission risk behavior.

CONCLUSIONS AND SUGGESTIONS

Based on the results of the research that has been carried out, it can be concluded that the knowledge and attitudes of pregnant women are related to the risk of transmission of the COVID-19 virus. A positive attitude and supportive knowledge of pregnant women will reduce the incidence of the risk of transmitting COVID-19.

Suggestions for health workers to increase education for pregnant women to break the risk of transmission of COVID-19. Future researchers can also add other variables related to knowledge and attitudes, such as family support and support from health workers.

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