



THE EFFECT OF HEALTH EDUCATION ON THE KNOWLEDGE AND BEHAVIOR OF PREGNANT WOMEN ABOUT COVID-19 IN RAMBAH TENGAH HILIR VILLAGE, RAMBAH DISTRICT, ROKAN HULU REGENCY

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Abstract: Complications that often occur in pregnant women infected with the COVID-19 virus include respiratory failure, heart problems, impaired blood clotting, kidney disorders and secondary infections by other microorganisms. While the effect on the baby is premature delivery and fetal death in the womb. The purpose of this study was to determine the effect of health education on knowledge and behavior of pregnant women about the COVID-19 disease in Rambah Tengah Hilir Village, Rambah District, Rokan Hulu Regency. This type of research is a quantitative study using a pre-experimental one group pre-post test design. The number of samples is 64 people who are determined by the total sampling technique. The statistical test used is the paired t test. The results showed that the average knowledge of respondents before being given health education about COVID-19 was 2.10 and after being given health education it was 1.04. As for the behavior of respondents before being given health education the average was 1.46 and after being given health education it was 1.06. Based on the results of statistical tests, there is an effect of health education on mother's knowledge and behavior about COVID-19 with statistical test results obtained p-values are 0.001 and 0.0004 ($p < 0.05$). It is hoped that pregnant women will continue to apply the 5 M (wearing a mask, maintaining distance, washing hands, avoiding crowds and reducing mobility) so that the chain of spreading COVID-19 is broken.

Keywords: behavior, COVID-19, knowledge, pregnant women

Abstrak: Komplikasi yang sering terjadi pada ibu hamil yang terinfeksi virus COVID-19 antara lain gagal napas, gangguan jantung, gangguan pembekuan darah, gangguan ginjal, dan infeksi sekunder oleh mikroorganisme lain. Sedangkan efek pada bayi adalah kelahiran prematur dan kematian janin dalam kandungan. Tujuan penelitian ini adalah untuk mengetahui pengaruh pendidikan kesehatan terhadap pengetahuan dan perilaku ibu hamil tentang penyakit COVID-19 di Desa Rambah Tengah Hilir Kecamatan Rambah Kabupaten Rokan Hulu. Jenis penelitian ini adalah penelitian kuantitatif dengan menggunakan desain pre-experimental *one group pre-post test design*. Jumlah sampel adalah 64 orang yang ditentukan dengan teknik total sampling. Uji statistik yang digunakan adalah uji t berpasangan. Hasil penelitian menunjukkan bahwa rata-rata pengetahuan responden sebelum diberikan pendidikan kesehatan tentang COVID-19 adalah 2,10 dan setelah diberikan pendidikan kesehatan adalah 1,04. Adapun perilaku responden sebelum diberikan pendidikan kesehatan rata-rata 1,46 dan setelah diberikan pendidikan kesehatan 1,06. Berdasarkan hasil uji statistik terdapat pengaruh pendidikan kesehatan terhadap pengetahuan dan perilaku ibu tentang COVID-19 dengan hasil uji statistik diperoleh nilai *p-value* sebesar 0,001 dan 0,0004 ($p < 0,05$). Diharapkan ibu hamil tetap menerapkan 5 M (memakai masker, menjaga jarak, mencuci tangan, menghindari keramaian dan mengurangi mobilitas) agar mata rantai penyebaran COVID-19 terputus.

Kata Kunci: COVID-19, ibu hamil, pengetahuan, perilaku

Introduction

COVID-19 is an infectious disease that has the potential to cause a health emergency for everyone. The spread of COVID-19 is so fast and deadly, transmission can occur if people inhale droplets that come out of coughs or breaths (sneezes) of people who are infected with the Corona virus (Syafri, 2020). The spread of COVID-19 is not only a health problem. Because of its massive distribution, it has caused other problems in various aspects of life, such as economic, political, defense, security, social and even cultural issues. Without realizing it, changes in various aspects have also changed the behavior of people around the world (Driyarkaya, 2020).

The first COVID-19 was reported in Indonesia on March 2, 2020 with two cases. Data on March 31, 2020 showed that there were 1,528 confirmed cases and 136 deaths. The COVID-19 mortality rate in Indonesia is 8.9%, this figure is the highest in Southeast Asia (Susilo et al., 2020). In June 2020, the

number of positive cases increased, namely 55,092 cases, 23,800 cases recovered and 2,805 cases died (COVID 19 Task Force, 2020). As a new disease that spreads quickly, there is no cure yet, accompanied by a flood of information through social media that is not all trustworthy. The circulating infodemics can distract logic, cause divisions, and create stigma for the community associated with COVID-19 which should be minimized through an academic approach (Pandelaki et al., 2017; Muthiadin et al., 2020).

Stigma arises due to lack of true knowledge about the disease. One way to increase knowledge about disease can be done by providing health education (Pandelaki et al., 2017). Efforts made to increase knowledge related to certain diseases can be done through counseling, training and health promotion programs (Takainginan et al, 2016). This is in accordance with Nurislaminingsih's (2012) research on Knowledge Services about COVID-19 at the Information Institute, that people have various needs for knowledge about COVID-19 according to their background. One of the groups who really need information about COVID-19 is pregnant women.

Pregnant women have a higher risk of serious illness, morbidity and mortality compared to the general population. (Ministry of Health RI, 2020). Complications that often occur in pregnant women infected with the COVID-19 virus include respiratory failure, heart problems, impaired blood clotting, kidney disorders and secondary infections by other microorganisms. While the effects on babies are premature labor and fetal death in the womb (Rachmatia, 2021).

The Indonesian Obstetrics and Gynecology Association (POGI) noted that 536 thousand pregnant women were confirmed to be positively infected with the COVID-19 virus, 52 percent or around 278,000 of them positive for COVID with asymptomatic status (OTG). confirmed cases must be treated in the ICU (Intensive Care Unit) while 3 percent died (Rachmatia, 2021). The number of suspected COVID-19 cases in April 2021 in Rokan Hulu Regency was 8,684 people, with a confirmed number of 933 people. Rambah District is the highest confirmed COVID-19 case in Rokan Hulu Regency, which is 209 people, followed by Ujung Batu District 185 people, then Tandun District 83 people (Riau Provincial Health Office, 2021).

Data on pregnant women obtained in 2021 from Rambah District, it is known that the number of pregnant women (January 2021-September 2021) in Rambah District is 931 people, it is reported that 36 pregnant women have been confirmed positive for COVID-19. While the number of pregnant women in Rambah Tengah Hilir Village as many as 70 people, 6 of whom were suspected of having COVID-19 and ended up having a miscarriage (Rambah Public Health Center, 2021).

The phenomenon found in the field is that many pregnant women get information about COVID-19 from social media, online news or word of mouth information that cannot be known. This often causes pregnant women to gain wrong knowledge about COVID-19, so that it has an impact on their negative behavior in responding to COVID-19 prevention efforts. This research was also carried out based on Andria's research (2020) where the results of the study stated that the majority of pregnant women's knowledge about COVID-19 in Rambah Tengah Hilir Village was 35 people (70%). Therefore, it is necessary to provide health education so that their knowledge will increase.

Materials and Methods

This research was conducted in the village of Rambah Tengah Hilir using a pre-experimental one group pre-post test design. Where respondents were given a questionnaire then continued with the provision of health education in the form of counseling. The number of samples is 64 people and the sampling method is using total sampling technique. That is, all the population is used as a sample. Data processing using the SPSS application with the statistical test used is the paired sample t test.

Result and Discussion

The number of respondents in this study were 64 people. Characteristics of respondents based on age are shown in Table 1. Based on Table 1, it can be seen that the age of respondents < 20 years was 2 people (3.13%), the age of respondents 20-35 years was 50 people (78.12%) and the age of respondents > 35 years was 12 people (18.75%)

Table 1. Frequency distribution of pregnant women based on respondent's age in Rambah Tengah Hilir Village, Rambah District, Rokan Hulu Regency.

Age	Total	Percentage
< 20 Year	2	3.13
20 – 35 Year	50	78.12
> 35 Year	12	18.75
Total	64	100

While the characteristics of respondent's based on education level are shown in Table 2. Based on table 2, it can be seen that the education of high school respondents is 40 people (62.5%), Diploma is 4 people (6.3%) and bachelor is 20 people (31.2%).

Table 2 Frequency distribution of pregnant women based on respondent's education in Rambah Tengah Hilir Village, Rambah District, Rokan Hulu Regency

Education	Total	Percentage
High School	40	62.5
Diploma	4	6.3
Bachelor	20	31.2
Total	64	100

A. The Effect of Health Education on Pregnant Women's Knowledge about COVID-19

Prior to conducting counseling related to COVID-19 to the respondents, a pre-test was conducted to assess the level of understanding of the respondents. The results of the pre test showed that the majority of respondents had less knowledge related to COVID 19, namely 28 people (43.7%) as shown in Table 3.

Table 3. Frequency distribution of respondent's knowledge before health education was given about COVID-19 disease in Rambah Tengah Hilir Village, Rambah District, Rokan Hulu Regency

No	Knowledge	Total	
		n	%
1	Good	16	25,0
2	Enough	20	31,3
3	Less	28	43,7
Total		64	100%

After counseling related to COVID 19, there was an increase in respondents' knowledge as shown in Table 4. Knowledge of respondents after being given health education, the majority of them have good knowledge, amounting to 52 people (81.3%).

Table 4. Frequency distribution of respondent's knowledge after being given health education about COVID-19 disease in Rambah Tengah Hilir Village, Rambah District, Rokan Hulu Regency

No	Knowledge	Total	
		n	%
1	Good	52	81.3
2	Enough	12	18.7
Total		64	100%

The results of the research on the effect of health education on COVID-19 on respondent's knowledge before being given an average of 2.10 with a standard deviation of 0.834. After being given counseling about COVID -19 the average was 1.04 with a standard deviation of 0.403 (Table 5). This change in knowledge was caused by the influence of providing health education in the form of counseling, giving leaflets and the existence of a WhatsApp group for 14 days given to pregnant women. The provision of health education to pregnant women turned out to have an impact on increasing the

knowledge possessed by pregnant women. Health education is a form of solving health problems with an educational approach, or a consciously planned process to create opportunities for individuals to constantly learn to improve their awareness (literacy) and increase their knowledge and skills (life style) for the benefit of their health (Nursalam, 2015).

Table 5. The Effect of health education on COVID-19 disease on respondent's knowledge before and after health education was given in Rambah Tengah Hilir Village, Rambah District, Rokan Hulu Regency

Variable	Mean	Standard Deviation	<i>p</i>
Knowledge before health education	2,10	0,834	0,001
Knowledge after health education	1,04	0,403	

The results of the statistical test showed that the *p*-value was 0.001 (<0.05), so it can be concluded that there is an effect of providing health education on increasing the knowledge of pregnant women about COVID-19. According to Sumantri (2014) that health education affects knowledge because health education is a short-term educational process that uses systematic and organized methods and procedures. Participants will learn knowledge and skills that are practical for a specific purpose. This study is in line with research conducted by Pancawati & Damayanti (2016), regarding the effect of health education on knowledge of early detection of diabetes mellitus (DM) in the community in the Ngemplakkarang Jati Hamlet, Sinduadi Village, Mlati, Sleman Yogyakarta. Statistical test results obtained *p* value is 0.000 so it can be concluded that there is an effect of health education on knowledge of early detection of DM. According to Sari & Sudarmiati's research (2017), regarding the effect of health education on the knowledge level of pregnant women about pregnancy danger signs at Karangdoro Health Center. The results of the statistical test showed that the *p* value was 0.000 (<0.05), so it can be concluded that there is an effect of health education on the level of knowledge of pregnant women about the danger signs of pregnancy at the Karangdoro Health Center. The level of knowledge is influenced by the level of education. the higher the level of education, the higher the absorption of information so that the information it finds can be understood properly. Conversely, the lower the level of education, the lower the mindset so that the absorption of information becomes less (Machfoedz, 2012).

Based on the results of research on the education of respondents, it shows that more than 40 people (62.5%) have high school education or have secondary education. This education affects a person's knowledge, because the higher a person's education, his knowledge will also increase. According to the researcher's assumption, health education given to someone can increase knowledge so that respondents get more information related to COVID-19. Good knowledge will also have an impact on the activities carried out by pregnant women to avoid the dangers of COVID-19.

B. The Effect of Health Education on the Behavior of Pregnant Women about COVID-19

Behavior from a biological point of view is an activity or activity of the organism concerned. So human behavior is essentially an activity rather than the human itself. The behavioral component is behavior that shows how the behavioral tendencies that exist in a person relate to the behavioral object at hand (Notoatmodjo, 2010). Behavior is a person's response or reaction to stimuli, behavior is also an action that can be studied and observed. One of the factors that influence human behavior or society is the level of knowledge (Donsu, 2017). In addition to the level of knowledge, health behavior can also be influenced by perceptions, emotions, motivations, and the environment (Audri, 2019).

The level of knowledge of respondents before being given health education was mostly less, namely 28 people (43.7%) (Table 6). After being given health education, knowledge changed to be good as many as 52 people (81.3%) (Table 7) and the behavior of respondents also experienced a change from negative behavior of 36 people (56.3%) to positive 56 people (87.5%). From this statement, it can be concluded that health education can change knowledge and behavior for the better. The health education provided has a major influence on the formation of people's opinions and beliefs. The suggestive messages conveyed by the information, if strong enough, will provide an affective basis in assessing something so that a certain direction of behavior is formed. Good behavior can be an effort to prevent the spread of COVID-19.

Table 6. Frequency distribution of respondent's behavior before health education was given about COVID-19 disease in Rambah Tengah Hilir Village, Rambah District, Rokan Hulu Regency

No	Behavior	Total	
		n	%
1	Positive	28	43.7
2	Negative	36	56.3
Total		64	100%

Table 7. Distribution of frequency of respondent's behavior after being given health education about COVID-19 disease in Rambah Tengah Hilir Village, Rambah District, Rokan Hulu Regency

No	Behavior	Total	
		n	%
1	Positive	56	87.5
2	Negative	8	12.5
Total		64	100%

The results of the research on the effect of health education on COVID-19 on the behavior of respondents before being given an average of 1.46 with a standard deviation of 0.512. After being given counseling about COVID-19, the average respondent's behavior was 1.06 with a standard deviation of 0.342 (Table 8). The results of the statistical test showed that the p-value was 0.0004 (<0.05), so it can be concluded that there is a significant effect of health education on COVID-19 on the behavior of respondents.

Table 8. The effect of health education on COVID-19 disease on respondent's behavior before and after health education was given in Rambah Tengah Hilir Village, Rambah District, Rokan Hulu Regency

Variable	Mean	Standard Deviation	p
Behavior before health education	1,46	0,512	0,004
Behavior after health education	1,06	0,342	

This research is in line with the research conducted by Purnamasari & Raharyani (2020), regarding the level of knowledge and behavior of the Wonosobo Regency Society about COVID-19. The statistical test results obtained good behavior as much as 95.8% while 4.2% behaved moderately and the p-value was 0.047 it can be concluded that there is a significant relationship between people's knowledge and behavior about COVID-19. This research is also in line with Mujiburrahman et al. (2020) research on the Relationship between Knowledge and Behavior of COVID-19 Prevention in the Community. Spearman test results on knowledge and behavior show the value of P value = 0.001 (P > 0.05). From these results, it can be concluded that there is a relationship between respondents' knowledge and COVID-19 prevention behavior in the community.

According to the researcher's assumption, someone who already knows certain information, then he will be able to determine and make decisions on how he should deal with it. In other words, when someone knows information about COVID-19, then he will be able to determine how he should behave towards it. From the results of the study, it was found that health education had an effect on behavior, after receiving health education on how to prevent COVID-19, the behavior of pregnant women changed from not using a mask when traveling to using a mask and pregnant women also limiting them not to leave the house, unless there is something urgent.

Conclusion

Health education can increase the knowledge and behavior of pregnant women about the COVID-19 disease in Rambah Tengah Hilir Village, Rambah District, Rokan Hulu Regency.

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