

RESEARCH ARTICLE

The Role of Midwives and Information Media in Knowledge, Attitude, and Behavior of Postpartum Mothers about COVID-19 Health Protocol

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Abstract

Transmission of COVID-19 in pregnant women and postpartum mothers is potentially high risk. Postpartum mothers implement health protocols influenced by predisposing, enabling, and need factors. This study aimed to analyze the role of midwives and information media in postpartum mothers' knowledge, attitude, and behavior regarding the COVID-19 health protocol. This research was conducted in RSUD Kabupaten Kediri, in August–October 2021. The study used a correlational analytic method. The sample was postpartum mothers using a simple random sampling technique where 100 respondents included in inclusion criteria were given a questionnaire to complete. This study employed Kendall's tau correlation test to analyze the data. The result showed that the role of midwives is mainly in the good category (66%) while the media information is also in the good category (58%). Most of the respondents had sufficient knowledge (37%), the attitude of respondents in implementing the COVID-19 health protocol had a positive category (52%), and the behavior of the respondents mostly had a good category (54%). This study concludes that there is a significant correlation between the role of midwives to knowledge ($p=0.009$), attitudes ($p=0.003$), and behavior ($p=0.000$) of postpartum mothers. There is a significant correlation between information media and knowledge ($p=0.042$) and behavior ($p=0.012$) of postpartum mothers. However, there is no significant correlation between information media and the attitude ($p=0.756$) of postpartum mothers regarding the COVID-19 health protocol.

Keywords: Attitudes, behavior, information media, knowledge, role of midwives

Introduction

Some people infected by severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) will have mild to moderate respiratory illness before recovering (COVID-19). The virus can aggravate the disease of the elderly and have health problems such as diabetes, chronic respiratory disease, cardiovascular disease, and cancer. Since March 11, 2020, it has declared COVID-19 a global pandemic with more than 500 million cases in 114 countries, and more than 6 million people have died. Since March 14, 2020, COVID-19 has become a national disaster in Indonesia.¹ As of April 2022, the Ministry of Health reported 6 million confirmed cases of COVID-19 with 150 thousand deaths.²

Transmission of COVID-19 that occurs in pregnant women and postpartum mothers is considered high risk. It means that pregnant women and postpartum women have physiological and physical changes that can increase their susceptibility to infection. The research in America stated that pregnant women

infected by COVID-19 among as many as 55 people and 46 neonates.³ In Indonesia, there were 18 pregnancies infected with COVID-19, all of them were infected in the third trimester, and the clinical findings were similar to those of non-pregnant adults. This condition needs more attention from health workers.⁴

Based on these limited data and several examples of cases in handling coronavirus, knowledge about COVID-19 infection in pregnancy and fetus is still limited. There are no specific recommendations for handling pregnant women with COVID-19. Therefore, it is necessary to prevent and control COVID-19 for health workers to stay healthy, safe, and productive and for patients to get services according to standards.^{2,4,5} Thus, patients get information about the principles of preventing COVID-19 in pregnant women, postpartum mothers, and newborns. The success of pandemic control in hospitals because it has an Infection Prevention and Control Committee, and all health care facilities have it for screening COVID-19.⁶

Postpartum mothers can carry out health

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protocols influenced by predisposing factors (sources of information, knowledge, and attitudes), enabling factors (role of health workers and availability of services, and need factors (perception of health and condition of mother's health).⁷

Information influences one's knowledge. Even though someone has low education but gets good information through online and offline media, it will increase one's knowledge.⁸ Health workers (midwives) have a role as perpetrators who are obliged to carry out their duties according to their positions.⁹ Other research found that there was an effect of the role of health workers, sources of information, and husband's support on postpartum mothers' adherence to breast care with $p < 0.05$.¹⁰

Based on a preliminary study conducted in Teratai Room, RSUD Kabupaten Kediri, some postpartum mothers do not wear masks before being reminded by the midwife on duty. Therefore, this study aimed to analyze the role of midwives and information media on postpartum mothers' knowledge, attitudes, and behaviour about COVID-19 health protocols.

Methods

This research is a correlational analytic study with a cross-sectional approach. The study conducted in Teratai Room, RSUD Kabupaten Kediri, in August–October 2021.

The sampling technique used was simple random sampling. The sample is 100 respondents, with the inclusion criteria: postpartum mothers willing to be respondents in Teratai Room, RSUD Kabupaten Kediri. The exclusion criteria: mothers who experienced post-abortion suffered from gynecological and oncological diseases. Independent variables are the role of midwives and information media with an ordinal scale. Dependent variables are knowledge, attitudes, and behavior of postpartum mothers with an ordinal scale, and the instrument used is a questionnaire. The Research Ethics Committee of Universitas Kadirri approved the study with approval number 005/19/VII/KEP/UNIK/2021. Analysis of the data using Kendall's tau correlation test.

Results

The frequency distribution of respondents based on characteristics (midwife's role, information

media, knowledge, attitudes, and behavior of postpartum mothers) can be seen in Table 1. The midwife's role is mainly in the good category, reaching 66%. Media information has a good category, that is 58%. Most of the respondents had sufficient knowledge, namely 37%, the attitude of respondents in implementing the COVID-19 health protocol had a positive category reaching 52%, and the behavior of the respondents mostly had a sufficient category which is 54%.

Based on Table 2, it can be seen that there is a significant correlation between the role of the midwife with knowledge ($p=0.009$), attitude ($p=0.003$), and behavior ($p=0.000$). There is a significant correlation between the information media with knowledge ($p=0.042$) and behavior ($p=0.012$), while the information media on attitudes has no significant correlation ($p=0.756$).

Table 1 Frequency Distribution of Respondents based on Characteristics

Characteristics	n=100 (%)
Midwife's role	
Not very good	0 (0)
Not good	0 (0)
Enough	18 (18)
Good	66 (66)
Very good	16 (16)
Information media	
Not very good	0 (0)
Not good	0 (0)
Enough	23 (23)
Good	58 (58)
Very good	19 (19)
Knowledge of postpartum mothers about the COVID-19 health protocol	
Not very good	1 (1)
Not good	30 (30)
Enough	37 (37)
Good	20 (20)
Very good	12 (12)
Postpartum mother's attitude about the COVID-19 health protocol	
Negative	48 (48)
Positive	52 (52)
Postpartum mother's behavior regarding the COVID-19 health protocol	
Not very good	0 (0)
Not good	5 (5)
Enough	54 (54)
Good	33 (33)
Very good	8 (8)

Table 2 Kendall Tau's Analysis Results

Categories	Postpartum Mother about COVID-19 Health Protocol					
	Knowledge		Attitude		Behavior	
	r	p	r	p	r	p
Midwife's role	0.202	0.009	0.221	0.003	0.412	0.000
Information media	-0.162	0.042	0.024	0.756	0.188	0.012

Discussion

Based on the research results, 100 postpartum mothers have a reasonably good knowledge (41–60%) of (68%). It showed that postpartum mothers know quite well about the COVID-19 health protocol. It allows the reception of information well, and the memory function works well. By receiving good information, it is hoped that postpartum mothers can maintain this information to be applied, especially information about COVID-19 health protocol.

The analysis test used Kendall's tau analysis, namely the role of the midwives in the knowledge, attitudes, and behavior of postpartum mothers. There is a significant correlation between the role of midwives and the knowledge of postpartum mothers about the COVID-19 health protocol with a positive (good) correlation. It occurred because the respondent correctly received information or socialization about the COVID-19 health protocol, especially on the role of health workers in the success of exclusive breastfeeding. Success can be achieved because respondents have good knowledge obtained from counseling activities carried out by health workers, especially midwives.¹¹

The results showed that the midwife's role was mainly in the good category, which was 66%. The correlation between the midwife's role and knowledge about COVID-19 health protocols, which were mostly good, could be influenced by the midwife's role regarding COVID-19 health protocols. The results showed the good midwife role regarding the COVID-19 health protocol was affected by the knowledge of postpartum mothers, mainly in the good category with 66%. In comparison, the role of midwives who had sufficient knowledge of the COVID-19 health protocol for postpartum mothers understanding in the adequate category was 18%.

Most of the knowledge that is quite good is obtained through communication, information,

and education given by the midwives, which is obtained after giving birth. According to the professional standards of midwives, they are required to be able to provide care for postpartum and breastfeeding mothers. One of the roles of midwives in the puerperium is to provide health education and counseling to clients.¹²

The role of the midwives and the attitude of the postpartum mother have a positive correlation. The better the midwife's role, the more positive the respondent's attitude regarding COVID-19 health protocol (52 respondents). Health workers can have a positive influence by demonstrating this attitude to mothers and their families so that respondents are successful in providing exclusive breastfeeding.¹¹

The results showed that the attitude of postpartum mothers about the COVID-19 health protocol was mainly positive, with 52%. The correlation between the role of midwives and attitudes about the COVID-19 health protocol can be influenced by the role of the midwife. The results showed that the role of a good midwife regarding the COVID-19 health protocol affects the attitude of postpartum mothers, mostly positive 53.03%. In comparison, the role of midwives who have sufficient knowledge about the COVID-19 health protocol caused postpartum mothers to have a negative attitude of 66.66%.

Attitudes are influenced by personal experiences, culture, and other people who are considered important. Midwives play a significant role in providing midwifery care, including during the puerperium and breastfeeding. Information, education, and communication (IEC) and counseling provided by midwives about the COVID-19 health protocol will be able to increase the knowledge of postpartum mothers. A good understanding of preventing COVID-19 will cause a person to have a positive attitude towards it. A person's attitude begins with the stimulus he gets. The stimulus can be in the form of counseling about the COVID-19 health protocol. Midwife's

role as an educator so that from that knowledge, she will respond positively or negatively.¹³

Based on the results of Kendall's tau statistical test on the role of midwives on the behavior of postpartum mothers regarding the COVID-19 health protocol, a p value of 0.000 was obtained. There is a correlation between the part of health workers and the conduct of mothers in exclusive breastfeeding. Health workers and health providers are obliged to initiate early breastfeeding for newborns to their mothers for 1 (one) hour.¹⁵ That the role of health workers, particularly midwives, is a major part of efforts to prevent and control the COVID-19. The study results showed that the behavior of postpartum mothers regarding the COVID-19 health protocol was mainly quite good (54%). It showed that a good level of the midwife's role would be followed by the behavior of postpartum mothers, who are pretty good.¹⁶

The midwife's role has also been stated in the principle of preventing health protocols during the COVID-19 pandemic for pregnant women, postpartum mothers, and newborns in the community. The active role of midwives as one of the health workers at the forefront is expected to remain selfless in providing maternal and child health care and must be more careful and alert to the "high risk" of exposure to COVID-19 transmission. Several measures to prevent COVID-19 infection during pregnancy, childbirth, and breastfeeding, among others, include universal precaution, by constantly washing hands with soap for 20 seconds or using hand sanitizer, using personal protective equipment, maintaining body condition by diligently exercising and getting enough rest, eating with balanced nutrition and practicing ethics cough and sneeze so that mothers can maintain and improve their health.¹⁷

The role of midwives through IEC and health education about the COVID-19 health protocol is needed as a psychological boost in growing self-confidence and encouraging behavior. In addition, the midwife's role regarding the COVID-19 health protocol will increase the knowledge of postpartum mothers so that a positive attitude and good behavior will be formed.

There was a correlation between information media on knowledge, attitudes, and behavior and prevention of COVID-19 transmission in the community. The results showed a significant correlation between information media and

ability ($p=0.006$, $p<0.05$) $r=0.308$, which indicated a correlation between information media on knowledge, attitudes, and behavior and prevention of COVID-19 transmission in the community.¹⁸ That there is an influence of the role of health workers, sources of information, and husband's support on postpartum mothers' adherence to breast care with a $p<0.05$.¹⁰ A study stated there is a correlation between sources of information and knowledge of adolescents about sexually transmitted diseases at GBKP Christian Private High School Berastagi.¹⁹

In the COVID-19 pandemic, the information media has become the most sought-after place for the public to collect information to increase knowledge and behavior.²⁰⁻²² The results showed that the information media about the COVID-19 health protocol was mainly good, 58%. Based on the anamnesis results for postpartum mothers in Teratai Room, RSUD Kabupaten Kediri, most good information media were obtained from cellphone information media, television, newspapers and websites, and magazines.

The results showed that not all media information about the COVID-19 health protocol was not good at 34.48%. Knowledge can be influenced by characteristics which include education, age, gender, intelligence, and socio-economics. With good education and intelligence, supported by good information media.²³

The correlation between information media and postpartum mothers' attitudes showed that the statistical test through Kendall's tau obtained $p=0.756$ ($p>0.05$) means there is no significant correlation between information media on postpartum mothers' attitudes toward the COVID-19 health protocol. A study showed no significant correlation between information and attitudes in students at the Public High School 9 Manado.²⁴ A person's attitude towards objects has different intensities or levels because attitudes are influenced by internal factors, namely personal experience, cultural influences, family, mass media, educational institutions and religion, and emotional factors.¹³ However, other factors that could influence the attitude of postpartum mothers in implementing the COVID-19 health protocol were not investigated in this study, for example, education and socio-culture, which could have been known more clearly. Differences in the results of this study from previous studies may occur because there are several aspects not examined in this study, namely factors that can

influence attitudes, such as personal experience factors, cultural influences, and emotional factors.²³ The attitude is a readiness or willingness to act and not a particular motive. It will be easier to receive information to have a better attitude than someone with lower education.²⁵

The analysis results showed a significant correlation between information media and postpartum mothers' behavior in implementing the COVID-19 health protocol, $p=0.012$ ($p<0.05$). There is a correlation between information media and knowledge, attitudes, and preventive measures for the transmission of COVID-19 in the community in Pelangi Gadang village, Ranah Pesisir subdistrict, Pesisir Selatan regency.¹⁸ The results showed that there was a significant correlation between information media and COVID-19 prevention and transmission measures ($p=0.028$, $p<0.05$), $r=0.241$, which indicated that there was a correlation between information media and knowledge, attitudes, and preventive measures for COVID-19 transmission in a society with sufficient closeness.¹⁸ The information media is a factor that influences the behavior of preventing COVID-19.²⁶

The results showed that the information media was primarily good about the COVID-19 health protocol affecting the behavior of postpartum mothers on good criteria by 50%. Information media has an effect related to changes in attitudes, feelings, and communication behavior.²⁷ Individuals who obtain information can determine how to react and make decisions when facing problems.²⁸ The information they get will influence the community to act and prevent the transmission of COVID-19. The use of media can motivate positive behavior from its users.²⁹ The media are broadly human, material, or events that build conditions to make a person acquire knowledge, skills, or attitudes to COVID-19 prevention.³⁰

There is a correlation between digital media and COVID-19 prevention behavior. This study explains empirical evidence that information related to COVID-19 in various digital media can trigger behavior to prevent the transmission of COVID-19 directly or indirectly.²⁰ The results showed a significant correlation between information media ($p=0.002$, $p<0.05$) and adolescent sexual behavior.³¹ Information media cannot be left behind to participate in conveying important information to the general public, especially postpartum mothers. Media

Information is one of the factors that influence knowledge and behavior. So what is seen can affect the behavior of postpartum mothers and tend to be imitated in implementing the COVID-19 health protocol.²⁷ Electronic information media influences because the information media in the form of electronics is audio and visual. Submission of information with audiovisual makes users understand more quickly and often immediately interested in doing the same thing.

The results showed that not all good information media affected the behavior of postpartum mothers at 3.4%. Not all communities comply with these provisions. Only 10% of the community has good COVID-19 health protocol habits: washing hands, wearing masks, maintaining distance, and complying with the COVID-19 protocol correctly.²⁶ This indicates that there may be other factors that influence the behavior of postpartum mothers regarding the COVID-19 protocol. Predisposing factors that influence behavior include belief, belief, education, motivation, perception, and knowledge.²³

Conclusions

This study concludes that there is a significant correlation between the role of midwives to the knowledge, attitudes, and behavior of postpartum mothers. In addition, there is a significant correlation between information media and the knowledge and behavior of postpartum mothers. However, there is no significant correlation between information media and the attitude of postpartum mothers regarding the COVID-19 health protocol.

Conflict of Interest

There was not a conflict of interest in this article.

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