



The relationship between providing health videos and knowledge of pregnant women in the Covid-19 era at the Sedayu II Health Center in Yogyakarta

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ABSTRAK

Latar Belakang : Ibu hamil dan janinnya merupakan prioritas populasi berisiko tinggi saat terjadi wabah penyakit menular. Kehamilan secara alami akan menyebabkan penurunan daya tahan tubuh, apalagi di masa pandemi Covid-19 yang dapat menyebabkan kecemasan berlebihan, stres, dan paparan infeksi virus corona. Beberapa penelitian menyatakan bahwa penggunaan smartphone memiliki efektivitas yang tinggi sebagai media pendidikan kesehatan karena dapat menyampaikan informasi melalui audiovisual, memiliki portabilitas yang tinggi, dan memiliki aplikasi yang mendukung peningkatan kualitas pelayanan kesehatan. Penelitian sebelumnya menunjukkan bahwa ibu hamil masih memiliki pemahaman yang rendah tentang pencegahan Covid-19 terkait upaya pencegahan infeksi COVID-19

Tujuan: Tujuan pemberian penyuluhan kesehatan melalui video kepada ibu hamil adalah untuk meningkatkan pengetahuan tentang covid-19 pada kehamilan

Metode: Populasi dalam penelitian ini adalah seluruh ibu hamil trimester I, II, dan III yang melakukan ANC di Puskesmas Sedayu II pada bulan Juni tahun 2020 yang berjumlah 30 ibu hamil. Penelitian menggunakan video edukasi yang dikirimkan melalui WhatsApp kepada masing-masing responden. Pretest dan posttest dikirim melalui Google form dan analisis data menggunakan uji Wilcoxon.

Hasil: Penelitian menunjukkan bahwa ada hubungan yang signifikan antara pemberian video edukasi tentang kehamilan dengan pengetahuan ibu hamil tentang Covid-19 di Bantul. Edukasi kesehatan menggunakan video dan pemanfaatan secara online menjadi pilihan utama di masa pandemi COVID-19 untuk mencegah peningkatan angka kesakitan dan kematian ibu dan bayi baru lahir. Pemberian video edukasi dinilai efektif karena tenaga kesehatan tetap dapat memberikan KIE kepada pasien dengan menghindari kontak langsung untuk mencegah penularan dari virus korona. Ibu hamil dapat dibimbing untuk belajar tentang kehamilan dan persalinan melalui buku KIA. Semua pendekatan ini dapat berkontribusi pada kehamilan yang nyaman, pengurangan risiko infeksi, kesiapan yang lebih baik untuk persalinan, pengalaman ibu, penyesuaian dan hasil pascapersalinan, dan manfaat ekonomi yang lebih besar untuk sistem kesehatan dan wanita hamil itu sendiri.

Kesimpulan: Hasil penelitian ini menunjukkan bahwa penggunaan media edukasi berbasis video online direkomendasikan sebagai metode alternatif dan dinilai sangat tepat digunakan pada peningkatan pengetahuan ibu hamil khususnya di masa pandemi.

ABSTRACT

Background : Pregnant women and their fetuses are a priority for high-risk populations during an outbreak of an infectious disease. Pregnancy will naturally cause a decrease in the immune system, especially during the Covid-19 pandemic which can cause excessive anxiety, stress, and exposure to corona virus infection. Several studies state that the use of smartphones has high effectiveness as a medium for health education because they can convey information through audiovisuals, have high portability, and have applications that support improving the quality of health services. Previous research has shown that pregnant women still have a low understanding of Covid-19 prevention regarding efforts to prevent COVID-19 infection

Objectives : The purpose of providing health education through videos to pregnant women is to increase knowledge about covid in pregnancy

Methods : in this study, the population was all trimester I, II, and III pregnant women who performed ANC at the Sedayu II Health Center in June 2020, totaling 30 pregnant women. Provided educational videos which were sent via WhatsApp to each respondent. The pretest and posttest were sent via Google form and data analysis used the Wilcoxon test.

Results : Research shows that there is a significant relationship between providing educational videos about pregnancy and the knowledge of pregnant women about Covid-19 in Bantul. Health education using videos and online utilization is the main choice during the COVID-19 pandemic to prevent increased morbidity and mortality of mothers and newborns. Providing educational videos is considered effective because health workers can still provide KIE to patients by avoiding direct contact to prevent transmission of the corona virus. Pregnant women can be guided to learn about pregnancy and childbirth through MCH books. All of these approaches can contribute to a comfortable pregnancy, reduced risk of infection, better preparedness for labor, maternal experience, postpartum adjustment and outcomes, and greater economic benefits for the health system and the pregnant woman herself.

Conclusions : The results of this study indicate that the use of online video-based educational media is recommended as an alternative method and is considered very appropriate for use during a pandemic

KEYWORD : education; health video;pregnancy

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INTRODUCTION

Corona virus Disease 19 (COVID-19) has become an epidemic almost all over the world since the end of 2019 and has been declared a non-natural national disaster. Where this virus was first reported through a case of pneumonia with no known cause. WHO data on May 20 2020 there were 5,000,599 positive cases of COVID-19,

the trend of Covid-19 events increased again in July 2022 where there were 552,504,629 cases globally and 6,112,686 cases in Indonesia (1),

The main clinical symptoms that arise as a result of this viral infection are fever, cough, shortness of breath, diarrhea, and anosmia. In patients with co-morbidities, it can interfere with the condition and even cause death. However, patients

who have a good prognosis can recover, as well as pregnant women. Some pregnant patients were found to have a high risk of morbidity and mortality (2). Reynolds RM, van Boeckel SR, Stock SJ, Denison FC, Maybin JA, Critchley HOD. Pregnancy and COVID-19. *Physiol Rev* 101: 303-318, 2021. First published September 24, 2020; doi:10.1152/physrev.00024.2020.-There are many unknowns for pregnant women during the coronavirus disease 2019 (COVID-19) Therefore, it is very important to protect pregnant women from this virus.

WHO explained that the pandemic was declared not over even though it was known that there were still difficulties in the health service system, including maternal and neonatal health services. Pregnant women and their fetuses are a priority for high-risk populations during an outbreak of an infectious disease (3). Pregnancy will naturally cause a decrease in the immune system, especially during the Covid-19 pandemic which can cause excessive anxiety, stress, and exposure to corona virus infection. Pregnant women who are over 35 years old, overweight, or have co-morbid health conditions such as high blood pressure (hypertension) and diabetes are more at risk of experiencing serious health problems due to COVID-19 (4).

The provision of midwifery services during the COVID-19 Pandemic by health workers can utilize information and communication technology in the form of telemedicine as one of the steps to prevent the spread of COVID-19. The development of educational media is currently very rapid, one of which is the development of visual videos and the use of the WhatsApp application. Several studies state that the use of smartphones has high effectiveness as a medium for health education because they can convey information through audiovisuals, have high portability, and have applications that support improving the quality of health services (5).

Previous research has shown that pregnant women still have a low understanding of

Covid-19 prevention regarding efforts to prevent COVID-19 infection (6). It was found that the majority of respondents (57%) The results of interviews conducted by researchers found that pregnant women were not aware during the pandemic, namely doubts about making ANC visits, environmental factors that increase anxiety about virus transmission, and efforts that must be made by mothers as prevention.

The purpose of providing health education through videos to pregnant women is to increase knowledge about covid in pregnancy, which is explained based on the theory that predisposing factors to human behavior include age, occupation, education, knowledge, and attitudes (7,8). Good knowledge will be in harmony with increasing positive attitudes and behavior which in this study is about the health of pregnant women during the Covid-19 period. HL Bloom's theory explains that the degree of health is influenced by four interrelated factors, namely the environment, health behavior, health services, and genetics. Of the four factors, behavior and environment have the greatest influence.

From this background, because there are restrictions on visits that must be postponed or even not recommended for treatment at a health facility if it is not urgent, the authors provide a solution with one of the programs so that pregnant women still get their right to consult. In order to monitor the health of the mother and fetus, the method provided is to utilize electronic IEC services (communication, information, and education) in video form, the method in this study is different from other studies because providing health education does not have to be face-to-face so there is no need to worry if you are going to be infected with the Covid -19 Virus, this method is an attempt to provide limited health education for pregnant women who will check themselves at a health facility, so that in this study it provides innovation or new breakthroughs in the health sector to provide electronic-based

health education by participating in building on the present era and at this level of time. With this, mothers can still get health information through videos, with modifications to counseling media like this can also increase knowledge for recipients of health information because delivery of material with Audio-visual media is more effective for increasing knowledge and changing the mindset of mothers. pregnant women about the importance of maintaining health during pregnancy. Even during a pandemic like this, we still get preventive and promotive information. This condition becomes a research gap that can be utilized by researchers to obtain research updates.

MATERIALS AND METHODS

This research is a type of quasi-experimental research, which contrasts the relationship between providing education about pregnancy and knowledge about pregnancy in the Covid-19 era. In this study, the population was all trimester I, II, and III pregnant women who performed ANC at the Sedayu II Health Center in June 2020, totaling 30 pregnant women. The sampling method uses the total sampling method.

The stage of this research was to conduct

a pretest on all samples to measure the level of knowledge of pregnant women about Covid-19, then the researchers provided educational videos sent via WhatsApp to each respondent. Video product instruments that have been tested for validity by experts from midwifery and from IT to determine the feasibility of videos for distribution to the public. This research has passed ethical clearance with number KE/AA/VIII/10264/EC/2020. The pretest and posttest were sent via Google form because they were carried out during a pandemic. Data analysis used the Wilcoxon test

RESULTS AND DISCUSSION

RESULT

The results of this study indicate that 30 pregnant women are given online educational videos. Based on **Table 1**, the results of the characteristics of respondents based on age, namely the majority are of reproductive age (86.7%), 50% of respondents are housewives, the average pregnant woman has high school education, the majority are primiparas and the economic situation is at the average UMR in the Bantul area.

Table 1. Distribution of the characteristics of pregnant women at the Sedayu II Health Center

Characteristics	Frequency	Prosentage (%)
Age		
20 Years old	3	10.0
20-35 years	26	86.7
>35 years	1	3,3
Occupation		
Teacher	3	10.0
civil servant	2	6.7
Self-employed	2	6.7
Private sector employee	8	26.6
Not working/Housewife	15	50

Education		
Elementary school	0	0
Junior High School	3	10
Senior High School	14	46.7
College	13	43.3
Parity		
Primipara	25	83.3
Second Para	5	16.7
Multipara	0	0
Minimum regional wage		
Under UMR	4	13.3
Amount UMR	19	63.4
Above UMR	7	23.3

Table 2. The results of the Wilcoxon test analysis on the level of knowledge of pregnant women before and after providing video-based education

Descriptive Statistics					P value
	N	Minimum	Maximum	Median	0,0001
Knowledge Level	30	27	36	36.0000	

Based on the results of the study, the majority of respondents in the reproductive age group were healthy. It was explained that in this age group, a woman/mother is more mature about her knowledge so this factor influences attitudes and awareness of health, one of which is the pressure of pregnancy according to recommendations. The age of respondents who are more than 35 years old medically is a vulnerable age for pregnancy and pregnant women at that age can be at risk for their pregnancies such as premature, prolonged labor, bleeding, and abortion.

DISCUSSION

Unwanted pregnancies will have an impact including increasing maternal and child morbidity and even death (21). However, it is explained in the research results of Delia, et al (2022) and Damayanti, et al (2022) that pregnant women with a risk age of < 20 and > 35 years if given

comprehensive midwifery care are likely to pass through the pregnancy period until the newborn is in normal condition and complications that will occur can be minimized (22,23). Explanation from Alfiana, et al (2022) that the importance of providing appropriate and comprehensive education or learning in order to help adolescents make wise decisions regarding early marriage so that adolescents will also think about which decisions to make, and which ones to avoid, so that they do not pregnancies occur at risky ages (24). Based on the work, it shows that 3 people (10%) worked as teachers, 2 civil servants (6.7%), 8 private employees (26.7%) and 15 people who did not work/IRT (50%). From the results of the research on occupational characteristics, the majority of pregnant women who did not work were 15 respondents with a percentage (50.0%) of 30 respondents. The results of this study are

in line with Fatimah's research (2020) that the majority of pregnant women are not working (housewives) with a total of 22 pregnant women (68.8%) (25).

Other studies explain that economic status, which in this case researchers associate with the mother's employment status, has a significant relationship with ANC visits. With a person's high economic status, this situation will be proportional to the perception of efforts to improve their health status. Working mothers are more concerned with the state of their pregnancy and make more use of ANC. This is partly because mothers are aware of the consequences and benefits of the importance of knowing the state of their pregnancy (9).

Research shows that there is a significant relationship between providing educational videos about pregnancy and the knowledge of pregnant women about Covid-19 in Bantul. Increased knowledge can be seen from the posttest test with the Wilcoxon test with a value of $p = 0.0001$. Health education using videos and online utilization is the main choice during the COVID-19 pandemic to prevent increased morbidity and mortality of mothers and newborns (10).

Providing educational videos is considered effective because health workers can still provide KIE to patients by avoiding direct contact to prevent transmission of the corona virus. This is in line with previous research which stated that KIE during the leadership period could be carried out through online education programs. Pregnant women can be guided to learn about pregnancy and childbirth through MCH books. All of these approaches can contribute to a comfortable pregnancy, reduced risk of infection, better preparedness for labor, maternal experience, postpartum adjustment and outcomes, and greater economic benefits for the health system and the pregnant woman herself. Therefore, pregnant women without serious problems

should use online ANC treatment programs as an alternative to treatment at health facilities at least to some extent (11)online antenatal care may help to provide relatively economical medical services and diminish health care inequality due to its convenience and cost-effectiveness, especially in developing countries or regions. However, some pregnant women will doubt the reliability of such online information. Therefore, it is important to ensure the quality and safety of online services and establish a stable, mutual trust between the pregnant women, the obstetric care providers and the technology vis-a-vis the online programs. Here, we report how the COVID-19 pandemic brings not only opportunities for the development and popularization of online antenatal care programs but also challenges. Education is closely related to a person's knowledge which is also very influential in the formation of behavior from the individual himself. In this study, education through videos given to pregnant women had an impact on changing knowledge (12). Meanwhile knowledge also greatly influences a person's attitude toward doing something [18]. The knowledge obtained by pregnant women regarding COVID-19 includes the impact of infection in pregnancy, efforts to prevent transmission of the virus, the process of antenatal care (ANC) during the Covid-19 period, how to manage stress and management of pregnancy self-protection during the COVID-19 period (13)including 48 in the experiment and 48 in the control groups, who were selected using power analysis and non-probability random sampling method. The data were collected between April 22 and May 13, 2020 using a "Personal Information Form", the "Revised Prenatal Distress Questionnaire (NuPDQ).

In this study, the education obtained provided new information and would have an impact on changes in the knowledge of pregnant women. Changes in health behavior begin with the provision of educational information to

increase public knowledge about it. Furthermore, the knowledge possessed, will raise health awareness and ultimately cause people to behave in a healthy life (7).

Other studies explain the importance of health education about COVID-19 during pregnancy. Important efforts to increase the public health awareness of infectious diseases, especially in vulnerable groups, one of which is pregnant women. The use of media by researchers is in line with previous research, namely online media and health applications that can improve the health of pregnant women, one of which is useful in reducing stress and depression related to pregnancy (14). Online-based information and social media applications are becoming increasingly popular among pregnant women and their partners to access pregnancy knowledge and identify risky behaviors and danger signs during pregnancy. These findings demonstrate the usefulness of the intervention program to prepare respondents to become mothers (15) a practice of medicine and public health supported by mobile devices, to improve community health status and change people's behavior for the health purposes. The present study sought to examine the effectiveness of the android application program of Suami Siaga Plus in increasing husband's scores in birth preparedness and complication readiness (BP/CR)(16) 87 pregnant women (Medicaid insured, BMI ≥ 25 kg/m²(17) .

The increase in video-based knowledge is in line with previous research which explained that there was an increase in knowledge and understanding of pregnant women in prevention efforts after COVID-19 health education. Educational or educational media is carried out based on the principle that through the five senses a person can receive and capture knowledge. The more senses that are used to receive and capture information, the more information will be obtained. The video provided is a combination of

audio, visual, and kinesthetic (18).

Audiovisual media is considered capable of providing an interesting picture and as a medium that makes it easier to retrieve health education messages. Health education in particular has virtually become a necessity since the internet has become a necessity in the last decade. Advances in information and communication technology can be used to improve human life, one of which is the welfare of pregnant women (19).

Previous research also proves that the use of internet technology in social networking is effective in increasing knowledge, and influencing attitudes, perceptions, awareness, and adherence to health. This correlation increases beliefs and self-concept which ultimately influence attitudes, including healthcare attitudes and health behaviors in pregnancy (20) termasuk penyampaian informasi kesehatan tentang pencegahan COVID-19 pada maternal. Tujuan penelitian: Mengetahui pengaruh pendidikan kesehatan pencegahan COVID-19 maternal secara online terhadap pengetahuan dan perilaku ibu hamil. Metode: Desain penelitian adalah penelitian non equivalent pretest posttest group desain. Sampel adalah 28 ibu hamil di kecamatan Baturraden dengan teknik cluster sampling. Instrumen yang digunakan adalah kuesioner pengetahuan dan kuesioner perilaku. Uji statistik yang digunakan adalah paired t-tets. Hasil: Ada perbedaan mean pretest dan posttest pada kelompok intervensi. Simpulan: Ada pengaruh pendidikan kesehatan pencegahan COVID-19 maternal secara online terhadap pengetahuan dan perilaku ibu hamil.”

CONCLUSIONS AND RECOMMENDATIONS

The results of this study indicate that there is a relationship between giving health videos and knowledge of pregnant women in the Covid-19 era at the Sedayu II Health Center in Yogyakarta. The use of online video-based educational media is recommended as an alternative method and

is considered very appropriate for use during a pandemic.

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