

ORIGINAL ARTICLE

Effect of Health Education Through Social Media at the Level of Anxiety Pregnant Women in the Time of Covid-19

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ABSTRACT

Introduction: The coronavirus disease-2019 (COVID-19) pandemic has swept the globe, posing a worldwide health threat and one of the world's most significant concerns. The COVID-19 pandemic has caused a slew of issues, including anxiety among expectant mothers. The goal of this study was to see the role of health education via social media that affect pregnant women's anxiety levels during the Covid-19 period. **Methods:** The research method used was a pre and post-test design without control with 100 respondents. The data collection method is to measure anxiety using the Zung's Self-Rating Anxiety Scale questionnaire. Data were analyzed using a dependent t-test to see the effect of health education on pregnant women's anxiety during the Covid-19 period. **Results:** The findings revealed that health education via social media had an influence on pregnant women's anxiety levels during the Covid-19 period, with a p-value of 0.0005. **Conclusion:** Health care providers and families should provide social and mental support to pregnant women in facing childbirth during the Covid-19 pandemic.

Keywords: Covid-19, Anxiety, Pregnant Women, Social Media

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INTRODUCTION

The coronavirus disease-2019 (COVID-19) pandemic has swept the globe, posing a worldwide health disaster and one of the world's most significant concerns. The Severe Acute Respiratory Syndrome Coronavirus-2 (SARS-CoV-2) causes Covid-19, a series of acute respiratory illnesses (1). This virus, which may be passed from person to person, has spread throughout China and over 190 other countries and regions. COVID-19 was declared a pandemic by the World Health Organization on March 12, 2020(2). On July 18, 2020, there were 13,876,441 cases and 593,087 deaths worldwide. People who are at high risk for contracting COVID-19 are the elderly, people who have asthma, hypertension, liver, diabetes, smokers, and pregnant women. Pregnant people have a higher risk than those who are not pregnant because it can have consequences such as preterm birth (3).

The Covid-19 pandemic has increased anxiety among

pregnant women (4). The COVID-19 pandemic has caused various problems, including anxiety among expectant mothers. Many mental and physical changes occur during pregnancy so, expecting women are more likely to get affected by the virus. There is currently no indication that pregnant women are at a higher risk of COVID-19-related severe illness than the normal community (1).

Mental problems, particularly depression, affect about 10% of pregnant women. The prevalence of this illness is higher in underdeveloped nations, reaching 15.6% during pregnancy and 19.8% after birth (WHO). During the pandemic, mental disorders are twice as common. The majority reported that the pandemic had affected their pregnancies. As a consequence of the COVID-19 epidemic, this group face far higher psychological and social isolation. This demography reveal that this group requires psychosocial help throughout pregnancy; if this is not provided, the mother and foetus will suffer (5).

According to Yue et al. (2020), online survey was undertaken among 308 to measure the level of anxiety experienced by pregnant women during the Covid-19 pandemic. The study shows that third-trimester pregnant women have high levels of social support and are prone

to anxiety. As a result, health care providers should aim to improve social support for pregnant mothers and minimize their risk, lowering anxiety (6).

Based on the research, anxiety of pregnant women is relatively low. The employment status of pregnant women can be a potential risk factor for anxiety levels during the Covid-19 Pandemic. During the Covid-19 pandemic, pregnant women are advised to maintain a healthy lifestyle, including rinsing hands regularly, maintaining social and physical distance, wearing a mask to protect their mouth and nose when around other people. Perform all these activities at home (even while working and praying), and seeking medical help as soon as possible if there is an emergency (1).

Health education is a set of activities intended at persuading others, including individuals, organisations, families, and communities, to adopt healthy lifestyle habits (7). Health education during the Covid-19 pandemic can be done through social media. Health education makes it possible to reduce anxiety in pregnant women during the pandemic, so this study wants to know the reduction of anxiety in pregnant women during the Covid-19 pandemic through health education with social media.

MATERIALS AND METHODS

The research method used a pre and post-test design without control. The sample at the time of the study was observed first before treatment and then observed again after treatment. This design is carried out to measure the effect of treatment (intervention) by comparing the results of changes before the intervention and after the intervention. This design was carried out by conducting a pre-test (an initial observation before receiving the intervention, followed by intervention, and finally a post-test, final observation). The population and respondents in this study were pregnant women who joined or registered via the WhatsApp group link to participate in this research. The number of respondents was not limited and follow the online research stages to completion.

Before starting the online webinar via the zoom application, respondents were given the Zung’s Self-Rating Anxiety Scale questionnaire for pregnant women (pre-test). Health education materials was delivered 3 (three) times through webinars series 1, series 2 and series 3 which is conducted over one month. Then the health education material was also recorded in a video, so that respondents can watch offline. After respondents were given material about Covid-19, an anxiety measurement was carried out again using the Zung’s Self-Rating Anxiety Scale questionnaire at the time and after (post-test) intervention with health education through a webinar series about Covid-19 in pregnant women.

The pre and post-test data from the anxiety level of pregnant women were processed using the t dependent test and the results were observed to see the effect of health education through social media in reducing anxiety levels in pregnant women during the Covid pandemic. The analytical method used is using the t dependent test which compares anxiety scores before and after the intervention. Thus from the study it was evident that there is an effect of intervention if the p-value <0.05.

This research has received an Ethical Clearance Letter from the Muhammadiyah Medical Faculty of Surakarta with No.3087 / B.2 / KEPK-FKUMS / XI / 2020.

RESULTS

Based on the data normality test (Table I), the results of the pre-test on the level of maternal anxiety showed that the data was normal (p-value = 0.0005), so that a dependent t-test could be carried out to compare anxiety scores before and after the intervention.

Table I. Normality Test of Maternal Anxiety Level Pre-test

	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Pretest	.144	100	.000	.930	100	.000

a. Lilliefors Significance Correction

The results of measuring anxiety levels using the Zung’s Self-Rating Anxiety Scale questionnaire during the pre-and post-test is shown in Table II. The results show that the pre-test average maternal anxiety level is 50.05 with a standard deviation of 3.170 with a minimum value of 45 and a maximum of 55. The results show that the post-test mean result of maternal anxiety level is 41.4 with a standard deviation of 10.624 with a minimum value of 20 and a maximum of 58.

Table II: Maternal Anxiety Level Pre-and Post-test Results

Variable	Mean	Standard Deviation	Min	Max
Pre-test	50.05	3.170	45	55
Post-test	41.4	10.624	20	58

The effect of health education through social media on the pregnant women’s anxiety level during the Covid-19 period was tested by using the t-test with a degree of significance $\alpha = 0.05$ provided that the relationship is said to be significant if the p-value is ≤ 0.05 and the relationship is said to be not significant if the p-value ≥ 0.05 (Table III). The average level of anxiety in the first measurement (pre-test) was 50.05 with a standard deviation of 3.17. In the second measurement (post-test), it was found that the average level was 41.4 with a standard deviation of 10.62. The statistical test results obtained p-value = 0.0005, it can be stated that there is a considerable difference in anxiety levels before and

Table III. Distribution of Average Results of Anxiety Levels for Pregnant Women in the Covid-19 Period according to the Pre Test and Post Test

Variable	Mean	SD	SE	P value	N
Anxiety Level					
Pre Test	50.05	3.17	0.317	0.0005	100
Post Test	41.4	10.62	1.062		

after the exam.

DISCUSSION

According to the findings, there was a p-value of 0.0005 after the intervention of health education via social media on the pregnant women's anxiety level during the Covid-19 period. Pregnant women's level of anxiety in facing the Covid-19 pandemic has decreased after being given intervention in the form of health education through social media. The government in 2020 issued a policy related to services for expectant mothers in the era of the COVID-19 pandemic. Services for expectant mothers, during the COVID-19 pandemic are regulated according to a guideline that is used as a reference for the community, both for mothers and families and health service providers. The services provided are for the welfare for both the mothers and babies. The fact that practically all regular and extra services, including maternity and neonatal health services are limited adds to pregnant women's concern (8).

As the expectant mothers are unsafe and have potential risk of contracting the coronavirus, especially for the foetus they are carrying, the 2019 coronavirus pandemic causes anxiety in them. Constant information is needed to prevent anxiety in pregnant women, as anxiety can lead to complications for both the mother and the foetus. The impact of anxiety on pregnant women and the fetus is low birth weight and psychological disorders in the mother after giving birth (9).

Based on the research results of Aritonang et al., (2020) low knowledge of pregnant women causes anxiety/fear during pregnancy in the era of the COVID-19 pandemic. This is evident in the pre-test, regarding the participant's anxiety experience. About 80% of participants are anxious about facing this COVID-19 pandemic (10). The lesser understanding of pregnant women regarding efforts to prevent COVID-19 infection during pregnancy is due to the circulation of false information in the wider community about COVID-19 regarding transmission, treatment and prevention of contracting COVID-19 (11). Maternal anxiety is linked to both social support and risk perception. Furthermore, it was shown that social support, either directly or indirectly, can influence risk. As a result, health personnel must endeavour to provide social support for pregnant women to lower their risk perception and anxiety (12).

Based on the results of the study, pregnant women's

anxiety level during the Covid-19 period decreased after intervention by providing health education related to prevention, dangers, and ways of transmitting Covid-19 to pregnant women. Increasing knowledge of pregnant women regarding Covid-19 has an impact on reducing anxiety levels in pregnant women.

CONCLUSION

From the present study it is evident that the mean pre-test score for maternal anxiety level was 50.05 and the post-test mean score for maternal anxiety level was 41.4. There is a p-value of 0.0005 for the influence of health education via social media on pregnant women's anxiety level during the Covid-19 period. COVID-19 infection during pregnancy was related with increased levels of anxiety. The study suggests that pregnant women considered social media to provide antenatal care and support during the COVID-19 pandemic. Therefore this kind of psychological support is crucial for antenatal medical care in order to prevent anxiety and stress-related complications among pregnant women. As there are many advantages and disadvantages of social medium for providing information and support for women during pregnancy, further enhancement of the opportunities is necessary in this context to promote pregnant women's wellbeing. This is an important avenue for further research and practice.

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