
Original Articles

The Pregnant Women Behavior in Using Personal Protective Equipment During Covid-19

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Abstract

Background: The COVID-19 outbreak has occurred worldwide and has resulted in fatalities. The death toll increases every day and continues to experience a significant increase. Until April 26, 2020, the cases increased rapidly to 8,882 in Indonesia and spread to 34 provinces with a mortality percentage of 8.365%. Symptoms that arise in every pregnant woman are very different depending on many things, one of which is the condition of obesity and the presence of comorbidities¹. Obesity in pregnant women with COVID-19 can cause pulmonary embolism (pulmonary embolism). Obesity is closely related to a prothrombotic activity that triggers clotting in blood vessels, increasing the risk of pulmonary embolism.

Objective: The purpose of the study was to determine the behavior of using personal protective equipment in pregnant women.

Methods: The design used in this research is descriptive research. Descriptive research aims to describe important events that occur in the present. Descriptive research designs are divided into two types, namely survey research designs. A survey research design was used to collect information from a person's actions, knowledge, will, opinions, behavior, and values in this study.

Results: The result showed that the description of anxiety based on age with the highest frequency is respondents aged 20-35 years, as many as 25 respondents (33.3%). The description of anxiety based on education with the highest frequency was among respondents with high school education, as many as 25 respondents (33.3%).

Conclusion: This detailed data will be presented in the form of a table regarding the anxiety of pregnant women.

INTRODUCTION

The COVID-19 outbreak has occurred worldwide and has resulted in fatalities. The daily death toll continues to increase significantly. At the end of 2019, WHO reported a cluster case of pneumonia with unknown causes in Wuhan City, Hubei Province in China. The new epidemic continues to grow. This outbreak is a new type of virus that has never been identified. A new type of coronavirus called the novel coronavirus (Kemenkes RI, 2020). On February 11, 2020, it was known as Covid-19 (Coronavirus Disease-19). This disease can give clinical manifestations of acute respiratory distress^{i,ii}

The most common symptoms of COVID-19 are fever, dry cough, and feeling tired. Other less common symptoms that some patients may experience include aches and pains, nasal congestion, headache, conjunctivitis, sore throat, diarrhea, loss of sense of taste or smell, skin rash, or discoloration of fingers or toesⁱⁱⁱ. The transmission of this virus is unknown; until April 26, 2020, the cases continued to increase rapidly to 8,882 cases in Indonesia and spread in 34 provinces with a mortality percentage of 8.365%. In East Java, there were 17,829 positive confirmed cases, and for Pasuruan City, as of July 18, 2020, positive confirmed cases: 120.

Pregnant women exposed to COVID-19 can occur in the first, second, or third trimesters. In the early stages of pregnancy, COVID-19 may potentially affect organogenesis and fetal development, although vertical transmission of COVID-19 from mother to fetus has not been proven (Briet J, M Auliffe FM, 2020). Symptoms that arise in every pregnant woman are very different depending on many things, one of which is the condition of obesity and the presence of comorbidities. Obesity in pregnant women with COVID-19 can cause pulmonary embolism (pulmonary embolism). Obesity is closely related to a prothrombotic activity that triggers clotting in blood vessels, increasing the risk of pulmonary embolism. Pulmonary embolism can also occur if the patient has had an infection in the lungs due to a bacterial infection such as *Streptococcus aureus*, which causes pneumonia. The occurrence of pulmonary embolism in pregnant women causes a decrease in oxygen saturation ($\text{PaO}_2 < 70 \text{ mmHg}$) and a respiratory rate of up to 30 breaths per minute (Fauci, 2020).

Taking 3M's actions, namely using the proper masks, can block the blowing of air particles from individuals who may be infected with Covid-19 but do not have symptoms. By blocking the gust of virus particles into the surrounding air, masks keep the virus from spreading. In addition, the mask serves as a physical barrier which is very helpful when we cough or sneeze. This action can block the droplets or saliva droplets that come out so they do not spread the virus. The air we exhale when we breathe contains water droplets from the lining of the lungs that carry bacteria, viruses, or other bacteria other dissolved compounds. Hand washing has been tested explicitly because it can prevent the spread of viruses and bacteria that cause disease. Proper hand hygiene can prevent respiratory and digestive diseases. Hand washing made the bacteria on the hands not enter the digestive and respiratory tracts. The public has been instructed to practice physical distancing or maintain a distance between people by staying at home, avoiding crowds, and refraining from direct contact with other

people to stop the current spread of the coronavirus, physical distancing is carried out for at least 14 days because the coronavirus has an incubation time of 14 days. The main point of physical distancing is to break the chain of the spread of the corona virus. When many people carry out their activities at home, the transmission rate can be much reduced. The purpose of the study was to determine the behavior of using personal protective equipment in pregnant women.

METHODS

The design used in this research is descriptive research. Descriptive research aims to describe important events that occur in the present. Descriptive research designs are divided into two types, namely survey research designs. In this study, a survey research design was used to collect information from a person's actions, knowledge, will, opinions, behavior, and values. This study used accidental sampling; a sampling technique based on coincidence; consumers who coincidentally/incidentally meet with researchers can be used as samples if it is deemed that the person who happened to be met is suitable as a data source. The population is the entire research object or the object under study (Natoatmojo, 2010). The population in this study were all pregnant women who had prenatal care or Ante Natal Caren at BPS Lilik totalling 75 respondents. The research sample is partly taken from the entire object under study and is considered to represent the entire population (Soekidjo Notoatmodjo, 2010). After entering the sample size formula, the number of samples is 75 respondents

RESULTS

a. Characteristics of respondents based on anxiety

Table 1 Characteristics of respondents based on anxiety

Anxiety	Frequency (n)	Percentage (%)
Normal	28	37.3
Lightweight	41	54.7
Weight	6	8.0
Total	75	100.0

Based on table 1 of 75 respondents shows that 28 respondents (37.3%) did not experience anxiety, 41 respondents (54.7%) experienced mild anxiety, and 6 respondents (8.0%) experienced severe anxiety. Most of the respondents with the highest frequency were respondents who experienced mild anxiety 41 respondents (54.7%).

b. Overview of respondent's anxiety based on age

Table 2 Overview of respondent's anxiety based on age, education, and work

Variable	Anxiety							
	Normal		light		Weight		Total	
	F	%	F	%	F	%	F	%
Age								
< 20 years	9	12.0	8	10.7	2	2.7	19	25.3
20-35 years	14	18.7	25	33.3	4	5.3	43	57.3
>35 years	5	6.7	8	10.7	0	0.0	13	17.3
Total	28	37.3	41	54.7	6	8.0	75	100.0
Education								
Elementary school	0	0.0	2	2.7	0	0.0	2	2.7
Junior High school	5	6.7	10	13.3	0	0.0	15	20.0
Senior High School	21	28.0	25	33.3	6	8.0	52	69.3
University	2	2.7	4	5.3	0	0.0	6	8.0
Total	28	37.3	41	54.7	6	8.0	75	100.0
Work								
Housewife	27	36.0	19	25.3	6	8.0	52	69.3
Private	1	1.3	19	25.3	0	0.0	20	26.7
Civil servant	0	0.0	3	4.0	0	0.0	3	4.0
Total	28	37.3	41	54.7	6	8.0	75	100.0

Based on table 4.5 of 28 respondents (37.3%) whose anxiety level was normal 9 respondents (12.0%) aged <20 years, 14 respondents (18.7%) aged 20 -35 years, 5 respondents (6.7%) aged > 35 years. Of the 41 respondents (54.7%) with mild anxiety, 8 respondents (10.7%) aged < 20 years, 25 respondents (33.3%) aged 20-35 years, 8 respondents (10.7%) aged > 35 years. Of the 6 respondents (8.0%) with severe anxiety, 2 respondents (2.7%) aged < 20 years, 4 respondents (5.3%) aged 20-35 years, and no respondents aged > 35 years.

Twenty-eight respondents whose anxiety level was normal 0.0% of respondents had elementary education, 5 respondents (6.7%) had junior high school education, 21 respondents (28.0%) had high school education, 2 respondents (2.7%) had a college education. Of the 41 respondents (54.7%) who had mild anxiety, 2 respondents (2.7%) had elementary education, 10 respondents (13.3%) had junior high school education, 25 respondents (33.3%) had high school education, 4 respondents (5.3%) had a college education tall. Of the 6 respondents (8.0%) who had severe anxiety, 0.0% of respondents had elementary education, 0.0% of respondents had junior high school education, 6 respondents (8.0%) had high school education, 0.0% of respondents had college education.

28 respondents whose anxiety levels were normal, 27 respondents (36.0%) worked as housewives, 1 respondent (1.0%) worked in the private sector, and 0.0% of respondents worked as civil servants. Of the 41 respondents (54.7%) who had mild anxiety, 19 respondents (25.3%) worked as housewife, 19 respondents (25.3%) worked in the private sector, 3 respondents (4.0%) worked as

civil servants. Of the 6 respondents (8.0%) who had severe anxiety, 6 respondents (8.0%) worked in the private sector, 0.0% of respondents worked as private sector employees, and 0.0% of respondents worked as civil servants.

c. Frequency distribution of respondent's compliance level

Table 3 Frequency distribution of respondents' compliance level

Compliance Rate	f	%
Obey	22	55%
Not obey	18	45%
Amount	40	100%

Based on table 3, it can be seen that the level of respondent's compliance in applying the 3 M (wearing a mask, keeping a distance, washing hands) as an effort to prevent the transmission of COVID-19, with the compliant category as much as 55% and the non-compliance category as much as 45%. In this study, it was shown that as many as 55% of the community had good compliance, which was shown by, among others, compliance with using masks when outside the house, washing hands with soap or hand sanitizer frequently, avoiding crowds and keeping a distance.

DISCUSSION

This study showed that primary dysmenorrhea is caused by the presence of prostaglandin $F2\alpha$, which is a potent myometrial stimulant and vasoconstrictor in the endometrium. Increased prostaglandins are always found in women with dysmenorrhea and are closely related to the degree of pain caused. ^{iv}This increase in levels can reach up to 3 times, starting from the proliferative phase to the luteal phase and even worse. Increases during menstruation. This increase in prostaglandin levels increases myometrial tone and excessive uterine contractions. The hormone produced by the posterior pituitary is vasopressin which is involved in decreasing menstrual flow and the occurrence of dysmenorrhea

The age of the woman strongly influences the incidence of primary dysmenorrhea. Pain that is felt a few days before and during menstruation is usually due to increased secretion of the hormone prostaglandin. The older a person is, the more often he experiences menstruation, and the wider the cervix, the less prostaglandin secretion. In addition, primary dysmenorrhea will eventually disappear with decreasing uterine nerve function due to aging. ^v. Explains that primary dysmenorrhea will eventually disappear in the late 20s or early 30s. The results of this study are slightly different from existing theories. As mentioned in theory, the highest incidence of primary dysmenorrhea is usually in the late 20s and early 30s. From the results of this study, primary dysmenorrhea mainly occurred in women aged 16-17 years.

Based on the results of data analysis, it can be concluded that the description of the anxiety of pregnant women during the pandemic based on age with the highest frequency is respondents aged 20-35 years, as many as 25 respondents (33.3%). The description of anxiety based on education with the highest frequency was among respondents with high school education, as many as 25 respondents (33.3%). This detailed data will be presented in the form of a table regarding the anxiety of pregnant women.

LIMITATION

There is no limitation.

CONCLUSION

From the results of the above discussion, the researchers suggest the following:

1. Anxiety descriptions based on age with the highest frequency were respondents aged 20-35 years, as many as 25 respondents (33.3%).
2. The description of anxiety based on education with the highest frequency is respondents with high school education, as many as 25 respondents (33.3%).
3. Anxiety descriptions by occupation with the highest frequency. Are respondents who work as a housewife, as many as 27 respondents (36.0%)
4. The compliance level of respondents in applying the 3 M (wearing masks, keeping a distance, washing hands) as an effort to prevent the transmission of covid-19, with the obedient category as much as 55% and the non-compliance category as much as 45%

AUTHOR CONTRIBUTION

R.A Helda Puspitasari : Conceptualization, methodology, writing-original draft, and supervision
Ayu Dewi Nastiti : Investigation, data duration, visualization, and project administration
Erik Kusuma : Formal analysis, funding acquisition and writing-review and editing
Dwining Handaayani : Software, validation, and resources

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CONFLICT OF INTEREST

There is no conflict of interest in this research.

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