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Research

Risk Factors for Anxiety in Housewives during the COVID-19 Pandemic

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ABSTRACT

Backround: The COVID-19 pandemic has a psychological impact on society, namely anxiety. Factors that influence anxiety during the COVID-19 pandemic are age, education level, occupation, and history of being diagnosed with COVID-19. This study aims to determine the risk factors for anxiety in housewives during the COVID-19 pandemic.
Subjects dan Method: An observational analytic study with a cross sectional approach was conducted in South Purwokerto, Central Java. The sample is 70 housewives selected by simple random sampling. The dependent variable is anxiety. independent variables were age, education, occupation, and COVID-19 infection. Anxiety was measured by the Hamilton Rating Scale for Anxiety (HRS-A) questionnaire. Other variables were collected by questionnaire. Data were analyzed using Chi-square.
Results: Age 40 years (OR= 1.55; 95%CI= 0.76 to 3.14; p= 0.330), higher education level (OR= 1.96; 95%CI= 1.03 to 3.71; p= 0.070), informal occupation (OR= 1.24; 95%CI= 0.44 to 3.48; p= 1,000), and a history of COVID-19 infection (OR= 31.10; 95%CI= 4.44 to 217.91; p<0.001) increased anxiety among housewives.
Conclusion: Age 40 years, higher education level, informal occupation, and history of COVID-19 infection increase anxiety among housewives during the COVID-19 pandemic.

Keywords: COVID-19, housewife, anxiety

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BACKGROUND

COVID-19 is an infectious disease caused by acute respiratory syndrome coronavirus 2 (Severe Acute Respiratory Syndrome Coronavirus 2 or SARS-CoV-2). Coronavirus is a new type of virus that was discovered in 2019 and has never previously been identified in humans. On March 11, 2020, the World Health Organization (WHO) declared it a global pandemic due to the widespread COVID-19 outbreak (WHO, 2020). Data on COVID-19 cases in Indonesia to date still shows a significant increase. The number of positive confirmed cases of COVID-19 in April was 1,680,180, in May as many as 1,849,099, in June as many as 2,198,198, and in July as many as 3,425,676 cases (Ministry of Health, 2021). In Central Java Province alone, until July 2021, it contributed 376,850 cases. Like-

wise in Banyumas Regency, as of July 2021 COVID-19 cases are still increasing (Banyumas Health Office, 2021).

The psychological condition experienced by many people, especially in Indonesia, is a sense of anxiety or anxiety (Setyaningrum and Yanuarita, 2020). Age, gender, education, and occupation affect Indonesian people's anxiety disorders during the COVID-19 pandemic. From the results of the study, it was found that younger people, female gender, people with low education, work as farmers, fishermen, laborers tend to experience higher anxiety disorders (Rusmawati, 2020). The results of previous studies do not include differences in anxiety for individuals or families who have been diagnosed with COVID-19 and those who have not.

The Berkoh sub-district itself is the third-highest sub-district for COVID-19 positive cases after the Purwokerto Wetan and Karangklesem villages. In Banyumas Regency itself, there are three hospitals that are referrals for COVID-19 patients, one of which is Prof. Dr. Margono Soekarjo, which is located in Berkoh Village, South Purwokerto District (Banyumas Health Office, 2021). Research on risk factors for anxiety during the COVID-19 pandemic has never been done before in other studies that took samples of PKK women in Berkoh Village, South Purwokerto. Based on the description above, the researchers are interested in conducting research related to the risk factors for anxiety in PKK Berkoh women during the COVID-19 pandemic.

SUBJECTS AND METHOD

1. Study Design

An analytical observational study with a cross-sectional design was conducted in Berkoh Village, South Purwokerto District, Central Java.

2. Population and Sample

The research population is housewives. A sample of 70 housewives was selected using a simple random sampling technique.

3. Study Variables

The dependent variable was anxiety. Independent variables were age, education level, occupation, and history of being diagnosed with COVID-19.

4. Operational Definition of Variables

Anxiety level is a response range that divides the individual to take action in overcoming the threat.

Age is the age of the respondent at the time the survey was conducted, expressed in years and calculated based on the respondent's year of birth.

Education level is the last type of formal education completed by the respondent.

Occupation is an activity or respondent's daily activities.

A history of being diagnosed with COVID-19 is the condition of the respondent or family who have had a positive history of COVID-19.

5. Study Instruments

The research instrument used the respondent's personal data questionnaire and the Hamilton Rating Scale of Anxiety (HRS-A) anxiety level questionnaire which had been tested for validity and reliability, namely the results of alpha crobach 0.93 validity test and 0.97 reliability test (Baesdo et al., 2011). The respondent's personal data questionnaire containing the name, age, education level, occupation, and history of being diagnosed with COVID-19 as well as the HRS-A (Hamilton Rating Scale for Anxiety) anxiety level questionnaire. Consists of 14 groups, namely feelings of anxiety, tension, fear, sleep disturbances, impaired intelligence, feelings of depression, muscle symptoms, sensory symptoms, cardiovascular symptoms, respiratory symptoms, gastrointestinal symptoms,

urogenital symptoms, autonomic symptoms, and behavior, and each the group is broken down again with specific symptoms. Each item observed was given 5 levels of score between 0 (none) to 4 (very severe). Score <14 (no anxiety), 14-20 (mild anxiety), 21-27 (moderate anxiety), 28-41 (severe anxiety), 42-56 (very severe anxiety or panic) (Darajat, 2018).

6. Data analysis

Data analysis was carried out by using the chi-square test and an alternative test, namely Fisher's exact's test.

7. Research Ethics

The research ethics permit approval letter was obtained from the Medical Research Ethics Commission of FK Unsoed, No 156/KEPK/VII/2021 on 26 August 2021.

RESULTS

The results of the study consist of univariate analysis which is a table of sample characteristics and bivariate analysis which is the result of analysis of the relationship between age, education level, occupation, and history of being diagnosed with COVID-19 with anxiety.

1. Univariate Analysis

Used to determine the distribution and frequency of each subject. The results of the univariate analysis are presented in Table 1 below:

Table 1. Distribution of the results of the characteristics of research subjects

Characteristics	Frequence	Percentage
Anxiety		
Anxious	23	32.9
Not anxious	47	67.1
Age		
<40 years	13	18.6
40 years	57	81.4
Level of education		
Low (<Senior high school)	15	21.4
High (≥Senior high school)	55	78.6
Profession		
Informal	59	84.3
Formal	11	15.7
History of being diagnosed with COVID-19		
Yes	29	41.4
Not	41	58.6

Based on table 1, it can be seen that most of the respondents did not experience anxiety with a percentage of 67.1%. Characteristics of respondents based on age, most of them were >40 years old as many as 57 people with a percentage of 81.4%. Based on the level of education, the majority were respondents with higher education (senior high school) as many as 55 respondents (78.6%). Most of the respondents worked in the informal sector as many as 59 people (84.3%) and based on a history of being diagnosed with COVID-19 for respondents and their families, the majority of them had no history of being diagnosed with COVID-19, namely 41 respondents (58.6%).

2. Bivariate Analysis

Used to find out whether or not there is a relationship between variables, namely the independent variable and the dependent variable.

Table 2. The results of the analysis of the relationship between age, education level, occupation, and a history of being diagnosed with COVID-19 with anxiety

Variable	Category	Anxiety				OR	95%CI	p
		Anxious		Not anxious				
		N	%	N	%			
Age	<40	6	46.2	7	53.8	1.55	0.76 to 3.14	0.330
	>40	17	29.8	40	70.2			
Education	Low	8	53.3	7	46.7	1.96	1.03 to 3.71	0.070
Level	High	15	27.3	40	72.7			
Occupation	Informal	20	33.9	39	66.1	1.24	0.44 to 3.48	1.000
	Formal	3	27.3	8	72.7			
History of	Yes	22	75.9	7	24.1	31.10	4.44 to	<0.001
COVID-19	No	1	2.4	40	97.6		217.91	

Based on table 2, it was found that age 40 years (OR= 1.55; 95%CI= 0.76 to 3.14; p= 0.330), higher education level (OR= 1.96; 95%CI= 1.03 to 3.71; p= 0.070), informal employment (OR= 1.24; 95%CI= 0.44 to 3.48; p= 1,000), and a history of COVID-19 infection (OR= 31.10; 95%CI= 4.44 to 217.91; p<0.001) increased anxiety in housewives.

DISCUSSION

Based on the results of the research that has been carried out, it is known that from 70 respondents, the results obtained are that the most age is >40 years old or middle adult, as many as 57 respondents (81.4%). The relationship between age and anxiety shows that young age is susceptible to stress and anxiety (Sundeen and Stuart, 2017). In adulthood, they will be more able to show mental maturity, in the sense of being wiser, able to think rationally, controlling emotions, tolerant of views and behaviors that are different from them, and can show intellectual and psychological maturity (Pertiwi et al., 2017).

The results of this study are not in line with research conducted by Mansourieh (2020), based on an online survey in Iran which stated that anxiety during the COVID-19 pandemic in the 21-40 years age group was significantly higher than in other age groups (p= 0.001) (Fadli et al. al., 2020). The results of this study are in line with research conducted by Vikawati et al, which showed that there was no significant relationship between age and anxiety in health workers working in hospitals and first-level health facilities, both those who had contact with confirmed COVID-19 patients and general patients. whose infection status is unknown (p= 0.709) (Vikawati et al., 2021). The difference in the findings in this study is because anxiety can be influenced by individual perceptions, that the more positive the perception of a stressor, the lower the stress level experienced by the individual (Setyananda et al., 2021).

Based on the results of research that has been carried out, it is known that from 70 respondents, the highest level of education was found in higher education (senior high school) as many as 55 respondents (78.6%). Anxiety is more common in subjects with low education than subjects with higher education. Where the higher the level of education, the easier it will be for someone to accept new things and adapt easily (Sundeen and Stuart, 2017). The results of this study are not in line with the research conducted by Sitohang et al which said that there was a significant relation-

ship between education factors and the anxiety of the people of Western Indonesia during the COVID-19 pandemic (p= 0.01). Education affects knowledge, namely the higher a person's level of education, the higher his knowledge and the easier it is for the person to receive information (Sitohang et al., 2021).

This study is in line with the research of Yaslina and Yunere, who reported that there was no significant relationship between education level and nurses' anxiety in dealing with the COVID-19 pandemic, because the level of education status did not affect perceptions that could cause anxiety (Yaslina and Yunere, 2020). The difference in the findings in this study was due to the fact that socialization regarding the prevention of COVID-19 transmission had been intensified up to the kelurahan level and given to the entire community so that heterogeneous communities still received the same information regarding preventing the transmission of COVID-19 to housewives. In addition, if someone has sufficient knowledge and is easier to receive information, then someone is more aware of the risks and impacts caused by COVID-19 so that it affects individual anxiety (Sitohang et al., 2021).

Based on the results of the research that has been carried out, it is known that from 70 respondents, the most work results were in the informal sector as many as 59 respondents (84.3%). People who work as farmers are more at risk of experiencing symptoms of anxiety about COVID-19 than office employees, due to their unfavorable economic status. The results of this study are not in line with research conducted by Putri, who reported that work is the dominant factor influencing anxiety in the community during the COVID-19 pandemic in Palembang City in 2021, where informal workers are at 2.4 times higher risk of experiencing anxiety than formal workers. after controlling for marital status, education level and age as confounding variables (Putri, 2021).

This is in line with the research of Vikawati et al, which stated that they did not find a relationship between work place and anxiety during the COVID-19 pandemic with a p-value of 0.988. This shows that the COVID-19 pandemic does not look at the place of work (Vikawati et al., 2021). The difference in the findings in this study is because the COVID-19 pandemic has affected all sectors of work, both formal and informal, thus affecting individual coping mechanisms that cause anxiety symptoms to not be found. In addition, if at work there are efforts to prevent COVID-19 in the form of implementing good health protocols and personal prevention by the individual himself, then a person feels safer and calmer, causing no anxiety to be found in individuals (Tan et al., 2020).

Based on the results of the research that has been carried out, it is known that from 70 respondents, the most results were obtained, namely there was no history of positive diagnosis of COVID-19 for the respondents themselves and their families, namely 41 respondents (58.6%). There is an interrelated relationship between increased IL-6 and symptoms of mental disorders. The first phase of viral exposure is characterized by an increase in pro-inflammatory cytokines such as interleukin-6 (IL-6) and tumor necrosis factor-a (TNF-α) delivered to the nucleus of the solitary tract and the hypothalamus. Furthermore, this chemical information triggers the release of corticotrophin-releasing hormone (CRH) and increases the activity of the hypothalamic-pituitary-adrenal (HPA) axis. This can activate the release of cortisol which in turn will trigger physiological and psychological stress (Kholilah and Hamid, 2021).

Feelings of depression, anxiety, stress, and negative social stigma experienced by individuals with confirmed COVID-19 impact on family members which are the cause of psychological distress. The results of this study are in line with Triyono et al., in Bentang Village, Wonosari District, Klaten, Central Java at the end of February 2020 reported that families whose members were confirmed to have COVID-19 had psychological problems. Associated with the process of self-isolation for two weeks at home, as well as feelings of sadness and fear if socially ostracized by the surrounding residents (Triyono and Mahardika, 2021). In addition, there is a decrease in physical abilities in COVID-19 survivors such as shortness of breath, loss of sensitivity to smell and taste which can have an impact on psychological effects (Singh et al., 2020).

The difference in the findings in this study related to age, education level, and occupation factors on anxiety due to a different sample from previous studies and research conducted in August 2021 where it is possible that PKK mothers have started to adapt to the COVID-19 pandemic conditions so that it affects coping mechanisms that cause them to fail. the discovery of anxiety symptoms (Vikawati et al., 2021). Coupled with the COVID-19 cases in Indonesia, the trend has begun to decline to less than 2,000 new cases per day (Ministry of Health, 2021).

The limitations of this study relate to the COVID-19 pandemic situation where respondents are not willing to hold direct meetings through interviews when the research takes place in August 2021. The data collection process in the study was carried out in two ways, namely offline by distributing questionnaires in each RW and onlyne. via google forms. In addition, there are other factors that have not been studied such as sources of information, level of knowledge, income, marital status, home location, and so on that can affect anxiety in PKK women in Berkoh Village.

The conclusion from the results of this study is that the risk factor for anxiety in PKK Berkoh women during the COVID-19 pandemic is a history of being diagnosed with COVID-19, where respondents or families who have a history of being diagnosed with COVID-19 are 31.10 times more likely to experience anxiety than respondents who do not have a history of being diagnosed with COVID-19. -19.

For the community, it is hoped that this research can be used as input for the community in supporting better mental health efforts by taking into account the factors that can affect the occurrence of anxiety during the COVID-19 pandemic. For the sub-district, it can be an input for the Berkoh Village to hold counseling on mental health in dealing with the COVID-19 pandemic and provide access to mental health services or online counseling for the community. Future researchers are expected to include other variables that are thought to be related to anxiety that were not examined in this study, such as sources of information, level of knowledge, income, and marital status. And it is necessary to use more in-depth research methods such as direct interviews.

AUTHOR CONTRIBUTION

Sifa Latif Khasana is the main researcher who selected the topic, searched for, and collected the data.

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CONFLICT OF INTEREST

There was no conflict of interest in this study.

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