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Original Research

Knowledge and Anxiety in Community During the COVID-19 Pandemic

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Article Info	Abstract
	Introduction: The continuous increase in COVID-19 data can cause public anxiety increase. Good knowledge of the COVID-19 pandemic is important to prevent anxiety because with knowledge the individual will have the ability to determine and make decisions on how he can deal with it so that it can minimize the risk of the emergence of anxiety. The purpose of this study was to describe the knowledge and anxiety of the community during the COVID-19 pandemic.
	Methods: This study used a cross-sectional method, carried out by distributing a google form link to respondents. The number of samples in this study were 115 respondents taken using purposive sampling technique then the data was analyzed using the SPSS application and only displayed the distribution of frequency and percentage. *Results:* The results showed that the level of knowledge of respondents about the COVID-19 pandemic was in the good knowledge category of 80.8% and the level of anxiety was in the category of not experiencing anxiety as much as 86%. *Conclusion:* A person's level of knowledge in dealing with the COVID-19 pandemic can be a factor that affects the emergence of anxiety disorders.

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INTRODUCTION

Coronavirus disease-19 (COVID-19) has caused considerable morbidity and mortality since December 2019. The virus is spreading very fast on a global scale. The prevalence of COVID-19 continues to increase and a global health emergency must be addressed immediately. The pandemic condition will have a psychological impact, one of which is anxiety. Anxiety is an emotional condition characterized by excessive anxiety about various daily events. The threat in the midst of the COVID-19 pandemic may continue to increase and become a threat to people's mental health conditions. Anxiety can lower the immune system and in the long run can lead to hopelessness. One of the factors that influence public anxiety in dealing with the COVID-19 pandemic is the level of knowledge and attitudes [1].

The COVID-19 pandemic is a non-natural disaster that does not only focus on increasing deaths but also impacts other sectors such as mental health, especially anxiety disorders. Excessive anxiety and worry can lead to clinically significant disturbances or other mental disorders. Based on several studies, the prevalence of anxiety disorders during the COVID-19 pandemic is 31.9%-35.1%. Data also shows that the higher the level of anxiety, the lower the immune system, thereby increasing the risk of developing disease infected with the virus. The prevalence of anxiety based on the results of conducting a self-examination related to the relationship between psychological problems and the COVID-19 pandemic and found 64.3% -80% of people experiencing psychological problems. in the form of anxiety or depression [2].

A person's level of knowledge in dealing with the COVID-19 pandemic can be a factor that influences the emergence of anxiety disorders [3]. This domain determines a person's response to an issue. After someone recognizes and knows a problem, there will be a process of judgment or opinion to form beliefs, the next process is to respond to what is believed. False knowledge about a disease can lead to negative beliefs or perceptions that can lead to psychosocial problems like stigma, and this will cause excessive anxiety. This process also plays a role in shaping one's response to problems during the COVID-19 pandemic [4]

The rapid spread of COVID-19 globally has caused considerable levels of anxiety, fear and panic among populations in countries around the world. This COVID-19 pandemic not only carries the risk of death from infection but also causes unbearable psychological stress. For this pandemic, it has resulted in stressors related to the economy and daily life, as well as stressors and levels of anxiety [5]. Anxiety is a normal reaction to stressful situations. However, in some cases, it becomes excessive and can cause someone to have an irrational fear of something [6]

The aim of our study was to describe the knowledge and anxiety and situation of the COVID-19 pandemic by estimating the current population prevalence of the symptom. We hypothesized that anxiety levels during the COVID-19 pandemic were higher than the pre-pandemic prevalence. In addition, we believe that several factors, for example, socio-demographic characteristics, access to

health information, social distancing practices, COVID-19 infection status, and social support, are related to anxiety. The results of this study can help establish a national baseline on mental health in the general population, and be used as a reference for developing public policies for psychosocial support during a pandemic.

METHODS

This study used a cross-sectional method, carried out by distributing google form link to respondents and filling out online questionnaires. The number of samples in this study was 115 respondents taken using purposive sampling technique with respondent inclusion criteria, namely people whose area is in the red zone area, people who can read, people who can access google form, and people who are willing to participate in this study.

The variables in this study are the level of public knowledge about the COVID-19 pandemic and public anxiety during the COVID-19 pandemic. This study uses 2 types of questionnaires, namely the public knowledge questionnaire about COVID-19 and the CAS (Coronavirus Anxiety Scale) questionnaire to measure anxiety that has been tested validity with a value of 0.689-0.932 and reliability test with a value of 0.89. Five CAS items were presented to the participants: dizziness, sleep disturbance, tonic immobility, loss of eating, and stomach upset. Participants must rate them on the same 5-point scale as in the singing version (How often have you experienced any of the following in the last 2 weeks? 0 = not at all; 1

= rarely, less than a day or two; 2 = several days; 3 = more than 7 days; 4 = almost every day for the last 2 weeks).

The analysis in this study is a descriptive analysis which only describes the characteristics and phenomena related to the level of public knowledge about the COVID-19 pandemic and public anxiety during the COVID-19 pandemic. This research has obtained permission from the National Unity and Political Agency of the Jember Regency with the letter number: 074/840/415/2021.

RESULTS

Based on the results of the respondent characteristic analysis test, the respondent's level of knowledge about COVID-19 and the respondent's level of anxiety due to COVID-19 can be presented in the following tables.

Table 1 shows the frequency data for each variable. The majority of respondents are male, which is 54%. The age of most respondents is 36-45 years old, which is 33% and the majority of respondents have senior high school education.

Table 2 shows data that from the answers to the questionnaire that was filled out by respondents about the knowledge questionnaire which consisted of 10 questions where the correct answer about the meaning of covid was 95.6%, the correct answer about the method of answering the COVID-19 virus was 94.8%, the mode of transmission was 87 %, the use of masks is 97%, the symptoms of COVID-19 are 96.5, the risk of COVID-19 is 88.7%, about the risk group is 78%, about new habits is 43% and about the self-isolation criteria is 60.8% .

Table 3 shows data that from the answers to the questionnaire that were filled in by the respondents based on the question items on the anxiety questionnaire which consisted of 5 question items that focused on the respondent's feelings due to the COVID-19 pandemic where the respondents answered that they never felt faint or dizzy by 52.5%, never had difficulty sleeping by 63.5%, never felt weak by 78.3%, did not feel an appetite by 75.7% and did not feel nauseated by 88.6%.

Table 4 shows that the majority of respondents have good knowledge, but there are still 22 people or 19.2% of 115 respondents who have less knowledge about COVID-19.

Table 5 shows that the majority of respondents experience anxiety, but there are still 16 respondents or 14% of 115 people experiencing anxiety disorders due to the COVID-19 pandemic.

Table 1

Characteristics of respondents (n = 115)

Variable	Frequency	Percentage (%)
Gender		
Man	53	46
Woman	62	54
Total	115	100
Age		
17 – 25 years	18	15,6
26 - 35 years old	34	30
36 - 45 years old	38	33
46 - 55 years old	20	17,2
56 - 65 years old	5	4,2
Total	115	100
Education		
Primary School	4	3,4
Junior High School	18	15,6
Senior High School	45	39,2
Bachelor	38	33
No School	10	8,8
Total	115	100

Table 2

Distribution of public knowledge about the COVID-19 pandemic (n = 115)

Question	Correct Answer		Wrong Answer	
	f	%	f	%
COVID-19 is a harmless disease and is just like the common cold	110	95,6	5	4,4
Coronavirus can survive several hours outside the human body	109	94,8	6	5,2
Coronavirus will not be contagious while talking	100	87	15	13
Only people who can transmit COVID-19 have symptoms	100	87	15	13
Healthy people don't need to wear masks when leaving the house	112	97	3	3
Symptoms of COVID-19 in the elderly are generally more severe than at a young age	111	96,5	4	2,5
The risk of death of COVID-19 patients is higher in people with chronic diseases	102	88,7	13	11,3
Children are not included in the group at risk because they are rarely infected with Covid-19	90	78	25	22
New normal means to return to the original habits before the emergence of the corona outbreak	50	43	65	57
Self-isolation for people infected with COVID-19 is not necessary for those who do not have symptoms	70	60,8	45	39,2

Table 3

Distribution of public anxiety statements due to the COVID-19 pandemic (n = 115)

Statement	Never		Rarely 1- 2 days		Never, not more than 7 days		Often, more than 7 days Often		almost every day	
	f	%	f	%	f	%	f	%	f	%
I feel dizzy, or faint, when I read or hear news about the coronavirus	60	52,2	35	30,4	15	13	5	4,4	0	0
I have trouble falling asleep, sleep poorly, or wake up frequently because I think about the coronavirus	73	63,5	35	30,4	5	4,4	2	1,7	0	0
I feel weak when I think of information about the coronavirus	90	78,3	20	17,3	3	2,6	2	1,7	0	0
I have no appetite when I think about or get information about the coronavirus	87	75,7	23	20	3	2,6	2	1,7	0	0
I feel nauseous or have stomach problems when I think or hear information about the coronavirus	102	88,6	13	11,4	0	0	0	0	0	0

Table 4

Distribution of categories of public knowledge about the COVID-19 pandemic (n = 115)

Knowledge	Frequency	Percentage (%)
Well	93	80,8
Not enough	22	19,2
Total	115	100

Table 5

Distribution of public anxiety due to the COVID-19 pandemic (n = 115)

Anxiety	Frequency	Percentage (%)
Anxiety	16	14
No Anxiety	99	86
Total	115	100

DISCUSSION

The research was conducted through an online survey which provided convenience and comfort for respondents to participate. However, our study also has limitations due to the limitations of the eligibility criteria, and relying on respondents' willingness to participate in the survey may lead to selection bias. Internet access provides massive exposure to COVID-19 information, from sources such as social media and online news portals, which can cause anxiety. Furthermore, previous studies have shown that anxiety is more common at a younger age. However, further research on the relationship between socioeconomic status and anxiety is needed.

Our findings on anxiety are higher when compared to several studies prior to the COVID-19 pandemic, including national figures from basic health research [7] which state that 9.8% of the adult population has mental and emotional problems. Several factors have been identified as contributing to increased anxiety during the outbreak, as stated by (Who, 2020). First, the fear of being susceptible to infection is common during outbreaks. Second, misinterpretation of perceived bodily sensations and changes can lead to increased episodes of "health anxiety" or hypochondriasis. Third, overexposure to COVID-19 related news and misinformation from unreliable sources can increase anxiety levels [8].

Feelings of anxiety arise during the COVID-19 pandemic, which is a worry about the future, and is usually accompanied by physical symptoms such as nervousness, tension, trying to avoid, pounding, and sweating over the threat of contracting COVID-19 or the risk of business failure and moral loss and material during the COVID-19 pandemic [9]. Anxiety usually occurs in situations that cannot be controlled by individuals such as the risk of contracting

COVID-19 so that a person will try his best for things that he can control in order to minimize losses (Vibriyanti, 2020). For this reason, they can seek information on prevention of contracting COVID-19, limit interaction with other people, and limit home activities [10].

News about COVID-19 is disseminated continuously through various media such as newspapers, television, radio, and social media. People also tend to seek information about ongoing events to keep themselves updated, especially in times of crisis. However, due to inadequate information management, people can be exposed to misleading information resulting in acute stress and intense fear [5]. Most of the respondents in the study stated that they had access to physical health information about COVID-19. However, only half of them received mental health information regarding the disease. It provides insight into how many people perceive current events as only affecting their physical health. In addition, there is a lack of knowledge to support mental well-being during a pandemic due to limited information sources or a reluctance to access the information provided. Therefore, the government must make special regulations to control the validity and reliability of information provided in the media, along with the dissemination of mental health information about how to deal.

According to research, anxiety about COVID-19 is influenced by lack of knowledge related to COVID-19, lack of healthy living behavior, inability to face major and sudden changes, inability to adjust to the environment experiencing a pandemic, lack of knowledge about mental and physical health and how to conduct mental health assessments independently, as well as low psychological coping [11].

Each individual has a different level of anxiety depending on how the individual copes with the trigger [12]. According to the researchers, the results of the research above are due to individuals who are repeatedly exposed to COVID-19 will have better adaptation and coping than respondents who are exposed to it for the first time. But the results of the study showed that the majority of research respondents showed that on average they experienced mild anxiety [13]. This could be because there is a lot of information related to stress management and there is a vaccine that can help the community so that it is not easy to contract COVID-19. Even though you have contracted COVID-19, if you have received the vaccine, it will cause milder symptoms than individuals who not vaccinated. The COVID-19 pandemic has a very broad impact, one of which can affect a person's psychological condition. Several factors that can affect the anxiety level of COVID-19 patients are age, occupation and history of exposure to COVID-19.

CONCLUSION

Anxiety has many causes. Knowledge is closely related to public anxiety. Paying attention to the news that is consumed and analyzed by the news, so as not to be anxious when hearing and reading the news. It is recommended that the public must maintain health protocols and be smart in filtering the information obtained, so that it does not become data to frighten themselves.

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