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Analysis of the Relationship of General Anxiety Disorders, Symptoms of Depression and Sleep Quality with Mental Health of the Elderly During the Covid-19 Pandemic in Semarang City

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Article Info

Abstract

The Covid-19 pandemic is a new form of case in the world of health that has various impacts, both biological, psychological, social and spiritual. Conditions like this must really be watched out for, especially at the vulnerable age and at risk, one of which is the elderly. Anxiety, depression and sleep disorders in the elderly are psychiatric disorders and are mental health problems that often occur among the elderly. The purpose of this study was to analyze the relationship between general anxiety, depressive symptoms and sleep quality with mental health. This research is an analytic observational study with a cross sectional approach. The population of this study is all the elderly in the city of Semarang whototaling 164.532 elderly.The sample used is 110 respondents withpurposive sampling technique based on the inclusion and exclusion criteria that have been determined. The research instrument used is a questionnaire. The data analysis in this study were univariate analysis (frequency distribution), bivariate analysis (rank Spearman correlation test) and multivariate analysis (multiple regression test). The results showed that there was a significant relationship between generalized anxiety disorder and symptoms of depression with mental health during the Covid-19 pandemic in the elderly in Semarang City. There is no relationship between sleep quality and mental health during the Covid-19 pandemic in the elderly in Semarang City.

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INTRODUCTION

Coronavirus Disease 2019 (Covid-19) is currently a serious world problem with the number of cases increasing every day. There are approximately 200 countries from various parts of the world that have been infected with this virus(Bhatt et al., 2021). In Indonesia on October 13, 2020 there were 340,622 positive cases, 263,296 people recovered and 12,027 people died with a death rate of 9.1% (Purwaningsih, 2021).

Study of several patients with COVID-19 in China (Liu et al., 2020) shows the fact that the risk of transmission and death (fatality rates) in elderly patients is higher than patients in the young age category. In other words, increasing a person's age has a significant effect on health risks. WHO revealed that in Europe around 95% of deaths are dominated by the elderly (Livingston et al., 2020).

Covid-19 cases in Central Java on October 14, 2020 totaled 4,366 cases, while the death toll was 2,225 people (Central Java Provincial Health Office, 2020). Susenas data for March 2019 shows that Central Java province has 3.4 million elderly people or 13.36 percent. Central Java Province is a province that has an elderly population structure considering the percentage of elderly people is already above 10%.

With the increasing number of elderly people in Indonesia, it will cause various problems and problems that will arise both physically and psychologically, namely anxiety. Psychological problems that occur in the elderly are a condition of decline which is also influenced by physical health with mental problems such as patterns and attitudes to life, feeling lonely, feelings of worthlessness, increased emotions in the elderly, as well as the inability to adapt to the developmental tasks of the elderly (Annisa & Ifdil, 2016). One of the psychological problems that often occur in the elderly in social life conditions is anxiety (Annisa & Ifdil, 2016).

Anxiety is a neurotic helplessness, insecurity, immaturity, and inability to deal with the demands of reality (environment), difficulties and pressures of daily life (Lu'lu & Roni, 2020). Anxiety itself can be potentially bad for the physical, psychological, and behavioral in the elderly. Meanwhile, the elderly are also prone to mental disorders. Mental disorders that often appear in the elderly are depression, cognitive disorders and phobias. Depression in the elderly can have a big impact on the elderly, among others, can reduce the ability of the elderly to carry out daily activities, reduce independence and quality of life of the elderly (Kaunang et al., 2019).

Depressive disorders can be experienced by all age groups. Based on the 2018 Riskesdas data, the tendency of cases of mental health (emotional) disorders shown through symptoms such as depression and panic/anxiety is 9.8% of the adult population. Then the process of degeneration in the elderly causes effective sleep time to decrease, so they do not get maximum sleep quality and will cause various kinds of sleep complaints. Insomnia or sleep disorders are a common disease in the elderly(Rianjani, et al., 2016). The incidence of insomnia will increase with age (Dewi & Ardani, 2014). Insomnia affects about 50% of people aged 65 years, every year it is estimated that around 20%-50% of elderly report insomnia and about 17% experience serious insomnia. The prevalence of insomnia in the elderly is quite high, around 67% (Abdullah et al., 2012).

During the pandemic, the focus of the government and mass media is on the biological and physical consequences of the Covid-19 outbreak rather than the psychological health problems caused by the Covid-19 outbreak. However, as the number continues to grow regarding reports of the increasing mental health burden caused by the COVID-19 outbreak, many communities are calling for action to increase mental health support in the general population (Ho et al., 2020).

Broadly speaking, there are two factors that affect mental health, namely internal and external factors. Which includes internal factors are biological and psychological factors. Several biological factors that directly affect mental health, including: the brain, endocrine system, genetics, sensory, and the condition of the mother during pregnancy. Psychological factors that affect mental health, namely: initial experience, learning process, and needs (Brückl et al., 2020). There is also an external factor which is socio-cultural (Mukti Amrullah & Herdiansyah, 2019).

The impact of Covid-19 not only threatens one's physical health but also affects one's mental health. Data from a cross-sectional study in China

revealed that more than half of the participants surveyed experienced moderate to severe psychological distress as a result of the outbreak (Wang et al., 2020). During the Covid-19 pandemic, people are forced to bear physical risks and emotional health problems, but the elderly are one of the groups most vulnerable to being affected by mental health disorders.

In Indonesia, there is little information about the impact of the Covid-19 pandemic on the mental health of the elderly, and there is no research that examines the effects of anxiety disorders, symptoms of depression and sleep quality on mental health in the elderly during the Covid-19 pandemic in Indonesia, especially in the city of Semarang. previous research that only examined the description of the level of anxiety in the elderly, the level of depression in the elderly and sleep disorders in the elderly.

Based on a preliminary study conducted by researchers using a questionnaire instrument distributed to 30 elderly people in Patemon village in December 2020, it was found that as many as 21 elderly had psychological well-being, while 9 elderly had psychological pressure. The mental health measuring instrument in this study used the Mental Health Inventory-38 (MHI-38) measuring instrument byVeit & Ware (2003) which has been modified in previous research by Aziz, et al (2017). The Mental Health Inventory-38 (MHI-38) measuring instrument has 2 dimensions, namely psychological distress (psychological pressure) and psychological well-being (psychological well-being). Psychological well-being is a term used to describe an individual's psychological health based on the fulfillment of positive psychological functioning criteria. Aspects that make up psychological well-being are self-acceptance, positive relations with others (positive relations with others), independence (Autonomy), environmental mastery (Environmental mastery), purpose in life (Purpose in life) and development personal (Personal growth) (Sukma & Muhana, 2015). While psychological distress leads to several situations of a person's negative thoughts and feelings such as discomfort, frustration, irritability, worry, and anxiety. In its simplest form,

psychological distress is seen as a construct that represents negative functional aspects. The characteristics of psychological distress are major depressive disorder and generalized anxiety disorder (Shaheen & Shamini Alam, 2010). Based on the above background, the authors are interested in analyzing the relationship between generalized anxiety disorder, symptoms of depression, and sleep quality with mental health during the Covid-19 pandemic in the elderly in Semarang City.

METHOD

The study was conducted on the elderly in Semarang City in April 2021.This research is an analytic observational study with a cross sectional approach. The population of this study were all the elderly in the city of Semarang, amounting to 164,532 elderly. The sample used is 110 elderly with purposive sampling technique. The inclusion criteria used areaged 60 – 69 years as evidenced by a National Identity Card, not deaf or speech impaired, Minimum high school education or equivalent.

The independent variables in this study were generalized anxiety disorder, depressive symptoms and sleep quality, while the dependent variable used was mental health in the elderly. The research instrument used is a questionnaire distributed directly or via online (google form). The questionnaire consists of two parts, the first questionnaire to identify the characteristics of the respondents (initial name, gender, age and last education), and the second questionnaire to determine symptoms of general anxiety, symptoms of depression, sleep quality and mental health. The data analysis used was univariate analysis (frequency distribution), bivariate analysis (rank Spearman correlation test) and multivariate analysis (multiple regression test).

RESULTS AND DISCUSSION

Table 1 presents the frequency distribution of the research respondents' characteristics consisting of gender and education.

Table 1. Characteristics of Research Respondents

Variable	F	%
Gender		
Man	59	53.6
Woman	51	46.4
Total	110	100
Education		
Senior High School	63	57.3
Bachelor	47	42.7
Total	110	100

Table 1 shows that the majority of respondents in this study were male as many as 59 (53.6%) respondents. Most of the respondents with the latest high school education status were 63 (57.3%) respondents.

Table 2. Univariate Analysis of each Variable

Variable	F	%
Generalized anxiety disorder		
Minimum	2	1.8
Light	18	16.4
Currently	87	79.1
Heavy	3	2.7
Total	110	100
Symptoms of depression		
Normal	69	62.7
Light	30	27.3
Currently	9	8.2
Critical	2	1.8
Total	110	100
Sleep quality		
Well	106	96.4
Bad	4	3.6
Total	110	100
Mental health		
Psychological stress	86	78.2
Psychological well-being	24	21.8
Total	110	100

Based on Table 2 respondents in this study mostly with moderate category generalized anxiety disorder as many as 87 (79.1%) respondents. Most of the respondents did not experience symptoms of depression or were in normal condition as many as 69 (62.7%) respondents. Most of the respondents had good sleep quality, namely 106 (96.4%) respondents. Mental health that occurs mostly with psychological pressure as many as 86 (78.2%) respondents.

Table 3. Bivariate Analysis Results

Variable	case. Mental				Total		p-value
	Tech. psychological		K. psychological				
	F	%	F	%	F	%	
Generalized anxiety disorder							
Minimum	1	0.9	1	0.9	2	1.8	0.000
Light	6	5.5	12	10.9	18	16.4	
Currently	76	69.1	11	10	87	79.1	
Heavy	3	2.7	0	0	3	2.7	
Total	86	78.2	24	21.8	110	100	
Symptoms of depression							
Normal	49	44.5	20	18.2	69	62.7	0.020
Light	27	24.5	3	2.7	30	27.3	
Currently	8	7.3	1	0.9	9	8.2	
Critical	2	1.8	0	0	2	1.8	
Total	86	78.2	24	21.8	110	100	
Sleep quality							
Well	82	74.5	24	21.8	106	96.4	0.286
Bad	4	3.6	0	0	4	3.6	
Total	86	78.2	24	21.8	110	100	

Table 3 shows that the variables of generalized anxiety disorder and depressive symptoms with p-value < 0.05, it can be interpreted that generalized anxiety disorder and depressive symptoms are related to the mental health of the elderly. Sleep quality variable with p-value > 0.05, it can be interpreted that sleep quality is not related to the mental health of the elderly. From table 4.3, it can be seen that most of the respondents with generalized anxiety disorder were in the moderate category, followed by the occurrence of psychological distress. Most respondents who did not experience symptoms of depression or were in normal condition were followed by the occurrence of psychological distress. Respondents with good sleep quality followed by psychological pressure.

Table 4. Multivariate Analysis Results

	Coefficientsa						
Model	Unstandardized Coefficients			Standardized Coefficients		t	Sig.
	B		Std. Error	Beta			
1	(Constant)	27.763	2.442			11.371	.000
	X1 (General Anxiety Disorder)	-.690	.172	-.347		-4.023	.000
	X2 (Symptoms of Depression)	-.236	.069	-.294		-3.430	.001
	X3 (Sleep Quality)	-.085	.214	-.034		-.398	.691

a. Dependent Variable: Y (Mental Health)

Wholeresearch variables were included in the multivariate model analysis (table 4). The final result of the model analysis shows that there are two variables that have a strong relationship with the mental health of the elderly, namely the generalized anxiety disorder variable, followed by the depressive symptom variable, where the p-value <0.05 is obtained.

Resultsresearch showsmost of the respondents with generalized anxiety disorder were in the moderate category as many as 87 (79.1%) respondents. Analysis of the results of the questionnaire showed that many respondents felt uneasy, too worried about many things because of the Covid-19 pandemic and were afraid if something bad happened. Respondents thought that the elderly were more susceptible to various diseases, including contracting Covid-19, thus affecting the mind / mentality of the respondents, where most of them suffered from psychological pressure. Respondents feel frustrated, hopeless and feel lost control of thoughts, feelings, and behavior. Statistical test results showed generalized anxiety disorder was associated with mental health of the elderly during the Covid-19 pandemic with p-value <0.05.

In general, mental health is a condition where individuals are free from all forms of symptoms of mental disorders. Mentally healthy individuals can function normally in carrying out their lives, especially when adjusting to face problems that will be encountered throughout one's life by using stress management skills (Ayuningtyas et al., 2018). Mental health is an important thing that must be considered as physical health(Galea et al., 2020). Good mental health allows a person to realize their potential, cope with the normal stresses of life, and work productively. One of the causes of mental disorders is psychogenic factors in which there is generalized anxiety disorder as one of the causes of mental disorders (Nasrullah & Sulaiman, 2021).

Anxiety disorder is a psychological disorder associated with a mental disorder, which causes sufferers to experience great and excessive anxiety accompanied by certain signs and symptoms (Eridani et al., 2018). Guslinda et al (2020) in their research stated that the Covid-19 pandemic had a drastic impact on the global population, and on various aspects of life. Many countries face the threat of this disease, and it occurs in all age groups, especially in the elderly or elderly age group (Guslinda et al., 2020). The elderly face a significant risk of contracting this Corona Virus disease, especially if they experience health problems along with a decrease in their physiological condition (Perrotta et al., 2020).

In pandemic conditions like this, various psychological problems that arise in the elderly, one

of which is anxiety which will have an impact on decreasing physical activity and functional status, and even risking death (Guslinda et al., 2020). Psychosocial problems are any changes in an individual's life, whether psychological or social, that have a reciprocal influence and are considered to be of considerable potential as a factor causing mental/mental disorders (health disorders) (Hartini et al., 2018).

Pedrosa et al., (2020) in his research also mentions that anxiety is closely related to mental health. Mental health disorders can cause a decrease in a person's productivity and ultimately lead to a large cost burden that can burden families, communities, and governments. Furthermore, mental health disorders can have an impact on increasing the burden on the state and decreasing human productivity in the long term.

Most of the respondents did not experience symptoms of depression or were in normal condition as many as 69 (62.7%) respondents. Some respondents are already with positive thoughts, have hope for the future and are starting to get used to the COVID-19 pandemic. However, there are still respondents who still feel anxious, sad and not excited about the Covid-19 pandemic. The results of statistical tests show that symptoms of depression are associated with the mental health of the elderly during the Covid-19 pandemic withp-value < 0.05 where, respondentwho do not experience symptoms of depression or in normal conditions are still followed by the occurrence of psychological distress.

The Covid-19 pandemic is a new form of case in the world of health that has various impacts, both biological, psychological, social and spiritual. Conditions like this must really be watched out for, especially at the vulnerable age and at risk, one of which is the elderly age(Alnazly et al., 2021). Depression in the elderly is a psychiatric disorder and is a mental health problem that often occurs among the elderly (Hartutik & Nurrohmah, 2021).

Elderly is an advanced stage of life where there is a decrease in the body's ability to adapt to environmental stress. Changes in physical function, changes in cognitive function, and psychosocial changes are changes that occur in the aging process that can cause depression in the elderly (Katuuk, 2018). The presence of depression in the elderly can affect the psychological state of the elderly such as

irritability, irritability, feeling depressed, feeling useless and forgetting easily (mental health) (Rosalita et al., 2019).

Rachmah & Tadjudin (2021) In his research, he also stated that Covid-19 had an impact on the elderly which could lead to depressive disorders. The main symptoms of depression that are felt are excessive fear and worry, feeling unable to relax and comfortable, experiencing sleep disturbances, and excessive alertness, if these disorders continue to affect the mental health of the elderly.

The results showed that most of the respondent with good sleep quality is 106 (96.4%) respondents. Statistical test results show that there is no relationship between sleep quality and the mental health of the elderly during the Covid-19 pandemic with a p-value > 0.05, the most respondents found with good sleep quality followed by psychological pressure. Research results are not in line with research Nazaruddin et al., (2021) which states that the elderly are the age group with the highest prevalence of sleep disorders, which is around 67%. This is because the elderly experience a decrease in sleep time at night and an increase in daytime sleep. Poor sleep quality in the elderly has an influence on cognitive, physical and quality of life abilities and as the quality of sleep decreases, the elderly will have a negative impact on health such as high blood pressure, stroke, heart attack, to psychological problems as well as depression and other emotional disorders (mental health).

The Covid-19 pandemic will have an impact on people's psychology. Conditions during the Covid-19 pandemic will cause mental health problems for individuals that are increasing every day (Xiong et al., 2020). According to the results of a survey conducted by the Association of Indonesian Psychiatric Specialists during this pandemic, out of 2,364 respondents from 34 provinces it was found that 31% had no psychological problems and 69% had psychological problems. And it is also known that there are 68% of respondents who show anxiety, 67% show symptoms of depression and 77% with psychological trauma (Hartini et al., 2018).

This study shows that there is no significant relationship between sleep quality and mental health, this can be due to the fact that most of the elderly have good sleep quality and are able to manage anxiety or depression experienced during the Covid-19 pandemic. Only a few respondents with poor sleep quality were followed by psychological pressure, so that this affected the results obtained where most were in good condition, which means that sleep quality does not affect the occurrence of mental health disorders in the elderly during covid-19.

CONCLUSION

The conclusion of this study is that there is a significant relationship between generalized anxiety disorder and symptoms of depression with mental health during the Covid-19 pandemic in the elderly in Semarang City. There is no relationship between sleep quality and mental health during the Covid-19 pandemic in the elderly in Semarang City.

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