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Screening of Anxiety and Quality of Life of People with Chronic Diseases at The Bandung City Elderly Posbindu

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ABSTRACT

As individuals age, their bodies become more susceptible to chronic diseases. The elderly are at a higher risk of developing chronic diseases compared to other age groups. Chronic diseases can have a significant impact on the health and quality of life of the elderly. Elderly individuals with chronic diseases often face psychological challenges, including anxiety, depression, and stress. This study aims to investigate the relationship between anxiety levels and quality of life in elderly individuals with chronic diseases, as well as the significant relationship between anxiety levels in elderly individuals with chronic diseases and quality of life. Data collection in this study utilized the Anxiety Disorder Assessment Scale (HDAS) and the EQ-5D-5L quality of life scale. Based on the results of the Spearman correlation test, with a rho (ρ) value of $p = 0.009 < 0.01$ and $r = 0.463$, it was found that there is a significant relationship between anxiety levels and quality of life in elderly individuals with chronic diseases.

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INTRODUCTION

The rapid advancement of science and technology in the era of globalization today has an impact on people's lives, including increasing the degree of health and life expectancy. As a result, the number of elderly people is increasing and is expected to grow even faster (Candrawati & Sukraandini, 2022). According to the World Health Organization (WHO), the projected population of the elderly in 2020 is 27.08 million, in 2025 it will be 33.69 million, in 2030 it will be 40.95 million, and in 2035 it will reach 48.19 million (Ministry of Finance of the Republic of Indonesia, 2017). In Indonesia, based on predictive data from the Central Statistics Agency (BPS), it is estimated that in 2020, there were 28 million elderly people (60 years old and above), which constitutes 10.7% of the Indonesian population. BPS also predicts that in 2045, the number of elderly people will increase to 19.90% (Adelia & Supratman, 2023).

Elderly is a term used to refer to individuals who have entered the final stages of the human age range, usually after reaching the age of 60 and above (Ministry of Health of the Republic of Indonesia, 2019). The Ministry of Health also classifies the elderly into three groups based on age: the pre-elderly group (45-59 years), the elderly group (60-69 years), and the high-risk elderly group (those aged > 70 years old or those aged ≥ 60 years old with health problems) (Ministry of Health of the Republic of Indonesia, 2019).

At this stage, individuals will experience a natural aging process that occurs in all people. When an individual reaches old age, they will undergo changes both physically and psychologically (Yuniarsih et al., 2021). The natural aging process causes biological changes in the body, such as decreased immune system function, decreased organ capacity, and increased susceptibility to disease (Friska et al., 2020). As we age, the body becomes more susceptible to chronic diseases. The elderly have a higher risk of developing chronic diseases compared to other age groups. Common chronic diseases in the elderly include rheumatism, hypertension, heart disease, lung disease, diabetes mellitus, paralysis, pulmonary tuberculosis, fractures, and cancer (Candrawati & Sukraandini, 2022).

Chronic diseases can significantly impact the health and quality of life of the elderly. They can limit physical abilities, interfere with mental functioning, affect independence in carrying out daily activities, and increase the risk of complications and disabilities. Seniors with chronic illnesses often experience psychological challenges, including anxiety, depression, and stress (Candrawati & Sukraandini, 2022).

Uncertainty about their health condition, fear of complications or worsening of conditions, as well as lifestyle changes needed to manage chronic illness, can be a significant source of stress and anxiety (Khasanah, 2019).

Anxiety is a psychological problem that occurs in many elderly individuals with chronic illnesses. Anxiety is a psychological disorder, characterized by restlessness and somatic disorders where the object is not yet clear. Elderly individuals with anxiety disorders will experience a decrease in the immune system, making them more susceptible to diseases (Ketut Candrawati et al., 2018). Based on previous research conducted by Ahsan and Arik (Khasanah, 2019), anxiety can lead to social, physical, and psychological imbalances. The impact of anxiety experienced by the elderly includes a decrease in physical activity and functional status, poor self-perception of health, decreased life satisfaction (Life Satisfaction), and quality of life (Quality of Life), increased loneliness (Loneliness), and increased use of services, resulting in higher spending on services (Tampi & Tampi, 2014, p. 2 in Khasanah, 2019).

According to the World Health Organization Quality of Life (WHOQOL) in (Friska et al., 2020), quality of life is an individual's perception of his or her life in society within a cultural context and values related to goals, expectations, standards, and focus of attention. Quality of life reflects satisfaction in various aspects of life. The quality of life of the elderly is influenced by various factors such as physical health, psychological health, social relationships, and the environment. The declining health status of the elderly as they age affects their quality of life (Rohmah et al., 2017).

Based on the presentation related to how the elderly who suffer from chronic diseases experience anxiety, which impacts their quality of life, this study aims to examine the relationship between anxiety levels and the quality of life of the elderly who have chronic diseases. Additionally, the study seeks to explore whether there is a significant relationship between anxiety in the elderly with chronic diseases and their quality of life.

METHOD

Participants

The participants in this study were the elderly who suffered from chronic diseases at POSBINDU LANSIA, Tamansari Village, totaling 31 people. The determination of the sample in this study, using Non probability sampling by the Convenience Sampling. Convenience sampling is a technique for determining participants based on the willingness of existing participants to participate in the research (Scott, 2019).

In this study, participants consisted of a gender group, namely as many men and as many women as possible, and based on age groups, namely the age range of 45 – 59 years as many as 8 people (25.8%), the age range of 60 – 69 years as many as 9 people (29%), and the age range > 70 years as many as 11 people (35.5%). The following is a description of the demographic data of the research subjects contained in table 1.

Table 1.
Demographic Data of Research Participants

Variable	Sum	Percentage
Gender		
Man	10	32,3%
Woman	21	67,7%
Age		
45 – 59 years old	8	25,8%
60 – 69 years old	9	29%
>70 years old	11	35,5%

Design

This study uses a quantitative research design. According to (Azwar, 2018), quantitative research emphasizes its analysis on quantitative data (numbers) collected through measurement procedures and processed by statistical analysis methods. The selection of this research design is in line with the purpose of the research, which is to find out how the relationship between the level of anxiety and the quality of life of the elderly who experience chronic diseases and how there is a significant relationship between the anxiety of the elderly with chronic diseases and the quality of life.

Procedure

In this study, the researcher divided the research procedure into four stages carried out by the researcher, namely

A. Preparation Stage
   1. Seeing phenomena from reliable news sources or other sources of information, be it books, journals, etc. related to anxiety in the elderly with chronic diseases and the quality of life of the elderly.
   2. Finding data related to the problem to be examined
   3. Look for previous studies related to the selected data and problems
   4. Identify research problems

5. Define data collection techniques
6. Define a data collection schedule

B. Stages of Data Collection
This stage is carried out by providing tested measuring tools to research participants and collecting research data. The measuring tools given to the participants were loaded in the form of questionnaires. The process of distributing the questionnaire is carried out manually, where the questionnaire is distributed to the participants in the form of sheets. This is done to make it easier for participants to fill out questionnaires, considering that the participants in this study are the elderly.

C. Data Processing Stage
At this stage, the researcher scores the data obtained and processes the data by conducting statistical tests.

D. Discussion Stage
At this stage, the interpretation and discussion of the results of statistical analysis is carried out based on the research questions asked, theories and frameworks of the research submitted and making research conclusions.

Instruments

The measurement tool used in this study is using the Hospital Anxiety Depression Scale-Anxiety (HDAS) and the quality of life scale, which is using European Quality of Life version No. 5 (EQ-5D-5L). The Hospital Anxiety Depression Scale-Anxiety (HDAS) consists of 14 statement items, seven items were assessed as depressed, 5 of which were markers of anhedonia (inability to feel pleasure), and 2 were related to appearance and feelings of slowing down. The other seven items assessed anxiety, 2 of which assessed autonomic anxiety (panic and butterflies in the stomach), and the remaining 5 items assessed tension and anxiety (Dunbar, Ford, Hunt, & Der, 2000 in (Zeltzer & Kloda, 2008).

The scores for items in each of the subscale items of HADS are summed to produce an anxiety score (HADS-A) or a depressive score (HADS-D), or they can be added to produce a total score (HADS-T). Each item is graded on a 4-point scale (ranging from 0 = no not at all, up to 3 = yes definitely), with a total score ranging from 0-21 for each sub scale item. Higher scores indicate higher distress. A number of items were scored in reverse (ranging from 3 = no, not at all, to 0 = yes definitely), including two from HADS-A and four from HADS-D (Zeltzer & Kloda, 2008).

The EQ-5D-5L questionnaire consists of five dimensions: mobility, self-care, daily activities, pain/discomfort, and anxiety/depression. In each dimension, respondents were asked to describe their health at this time by filling in one of five severity levels, namely: no problem, mild problem, moderate problem, severe problem and inability (Tondok et al., 2021).

Analytical Techniques

The data analysis technique used in this study is by descriptive statistical method. This method is used to analyze data by describing or describing the data that has been collected as it is without intending to make generalizations or generalizations (Scott, 2019). The descriptive statistical analysis techniques used in this study that is minimum, maximum, mean, and standard deviation values.

Meanwhile, the hypothesis test in this study was carried out using a correlation test Rho (ρ) of Spearman. Correlation test Rho (ρ) of Spearman This is included in non-parametric statistical tests. This test is used based on the results of the normality and linearity tests that have been carried out previously. According to (Scott, 2010), correlation test Rho (ρ) of Spearman It is used to find relationships or test the significance of an associative hypothesis when each variable that is associated with an ordinal form with the data between variables does not have to be the same.

RESULT AND DISCUSSION

Overview of Anxiety Levels of Elderly People Suffering from Chronic Illnesses

The picture of anxiety levels in the elderly with chronic diseases can be seen from the results of the calculation of anxiety level scores based on norms on the HADS scale, which can be seen in table 2

Table 2.
Anxiety Levels in Elderly with Chronic Illnesses (n=31)

Anxiety Level	Category	Sum	Percentage
0 – 7	Usual	26	83,9%
8 – 10	Mild Case	2	6,45%
11 – 15	Medium Cases	2	6,45%
16 – 21	Heavy Cases	1	3,2%

Based on the table above, it can be seen that the majority of participants were at the normal level of anxiety, which was 26 people with a percentage of 83.9%. Meanwhile, there were also two participants with a percentage of 6.45% who were at the level of anxiety of mild cases, two participants with a percentage of

6.45% who were at the level of moderate case anxiety, and one participant with a percentage of 3.2% who were at the level of anxiety of severe cases.

Overview of the Quality of Life of the Elderly Who Suffer from Chronic Diseases

Table 3.
Quality of Life in the Elderly with Chronic Diseases Based on Quality of Life Dimensions using the European Quality of Life scale version No. 5 (EQ-5D-5L) (n=31)

Quality of Life Dimension	N (%)				
	No problem	Minor Problems	Moderate problems	Weight problems	Unable to afford
Walkability	23 (74,2%)	5 (16,1%)	1 (3,2%)	1 (3,2%)	1 (3,2%)
Self-Care	28 (90,3%)	1 (3,2%)	1 (3,2%)	0	1 (3,2%)
Activities Commonly Done	26 (83,9%)	3 (9,7%)	1 (3,2%)	0	1 (3,2%)
Pain/discomfort	9 (29,03%)	18 (58,1%)	2 (6,4%)	2 (6,4%)	0
Anxiety/Depression (Sad)	20 (64,5%)	9 (29,03%)	1 (3,2%)	1 (3,2%)	0

Based on the table above, it can be seen that the majority of participants had no problems in the four dimensions of quality of life, including the ability to walk as many as 23 people (74.2%), the virginity dimension as many as 28 people (90.3%), the dimension of activities that are usually carried out as many as 26 people (84.9%), and the dimension of anxiety/depression (sad) as many as 20 people (64.5%). As for severe problems, there was one person (3.2%) of participants who experienced the dimension of ability to walk, two (6.4%) people in the dimension of pain/discomfort, and one person (3.2%) in the dimension of anxiety/depression (sad). In addition, there were also participants who experienced or were unable to do several aspects of quality of life, namely one person (3.2%) in the dimension of walkability, one person (3.2%) in the dimension of self-care, and one person (3.2%) in the dimension of activities that are usually carried out.

Overview of Anxiety Level and Quality of Life of Elderly People with Chronic Diseases

The score of the measurement of the anxiety scale and the quality of life scale in the elderly with chronic diseases was obtained from the results of a descriptive statistical test that the researcher had conducted, which was processed using SPSS for Windows 25.0 which can be seen in table 4.

Table 4.
Anxiety Level and Quality of Life Scores of Elderly People with Chronic Illnesses

Variable	Min Value.	Max Value.	Mean	SD
Quality of Life	5	23	7,32	3,73
Anxiety	0	38	8,13	8,51

The Relationship between Anxiety Level and Quality of Life of Elderly People with Chronic Illnesses

To find out the relationship between the level of anxiety and the quality of life of the elderly who experience chronic diseases, statistical testing is needed. However, before that, the researcher also conducted a normality test first to determine the right statistical technique to use. The results of the normality test on each variable score using Saphiro-Wilk showed a significance value, p = .000. This explains that the distribution of scores is not distributed normally. Therefore, in this study, the statistical test used is the rho (ρ) correlation test from Spearman. The results of the rho (ρ) correlation test of the Spearman of the two variables can be seen in table 5.

Table 5.
Rho (ρ) correlation test of Spearman anxiety and quality of life scale (n=31)

Correlations				
			Anxiety	Quality of Life
Spearman's rho	QUALITY OF LIFE	Correlation Coefficient	1.000	.463**
		Sig. (2-tailed)		.009
		N	31	31
	ANXIETY	Correlation Coefficient	.463**	1.000
		Sig. (2-tailed)	.009	
		N	31	31

Based on the table above, it can be seen that the significance value is p = 0.009 < 0.01 which shows that there is a significant relationship between the level of anxiety and the quality of life of the elderly who experience chronic diseases. The value of the correlation coefficient is 0.463, this shows that the category relationship is quite strong because it is in the range of more than $0.25 \leq r \leq 0.5$. The direction and strength of correlation can be seen from the value of r, a positive correlation coefficient which means that the higher the anxiety, the better the quality of life.

Discussion

Results of correlation test analysis Rho (ρ) of Spearman showed that there was a significant relationship between the level of anxiety and the quality of life of the elderly who experienced chronic diseases

with a p=0.009 value < 0.01 and a correlation coefficient of 0.463. These results show the acceptance of the hypothesis formulated in this study, namely that there is a significant relationship between the level of anxiety and the quality of life of the elderly suffering from chronic diseases. This is in line with previous research conducted by (Jalnuhubun et al., 2022), which suggests that there is a strong relationship with a positive correlation between anxiety levels and the quality of life of the elderly. This relationship illustrates that the higher the anxiety of the elderly, the better the quality of life of the elderly.

In old age, an individual will experience changes in physical, cognitive, and psychosocial life (Papalia et al., 2001). These changes can act as a stressor factor that makes the elderly susceptible to experiencing anxiety symptoms. Anxiety symptoms have a high prevalence in the elderly, even up to 24% (Bryant et al., 2008). Seniors who suffer from chronic illnesses often experience higher levels of anxiety. This can be due to uncertainty about their health condition, fear of complications or worsening conditions, as well as the physical and psychological burden of managing chronic diseases. Anxiety can affect quality of life by interfering with physical, social, and psychological functioning (Khasanah, 2019). As for the (Saraçli et al., 2015), said that the health of the elderly that must be checked is always physical health only, but also psychological such as anxiety for the elderly because it can affect the quality of life of the elderly.

The quality of life of the elderly with chronic diseases can be affected by the level of anxiety experienced. Anxiety can lead to a decrease in quality of life by worsening physical and psychological symptoms, interfering with daily activities, and reducing social interactions. Conversely, improving quality of life can help reduce anxiety levels by providing emotional support, improving coping, and improving perceptions of control over the disease. In line with what was put forward by Tampi & Tampi (2014, p.2) in a previous study conducted by (Khasanah, 2019), explaining that there are several impacts of anxiety experienced by the elderly, namely a decrease in physical activity and functional status, self-perception of poor health, and decreased life satisfaction (Life Satisfaction) and quality of life (quality of life), increased loneliness (Lonelines) and the use of services and spending a lot of money on services.

In previous research conducted by (Sani et al., 2022), It was found that there was a correlation between anxiety levels and quality of life in the elderly, where higher levels of anxiety were associated with a significant decrease in quality of life. Anxiety refers to an individual's response to excessive worry, fear, disturbing feelings, and discomfort to a situation that has not yet occurred. This factor is often linked to the aging process, which can lead to physical, psychological, and cognitive changes. Psychological well-being plays an important role in an individual's ability to cope with and control their life situations, which in turn can affect their quality of life (Sani et al., 2022).

CONCLUSION

Based on the results of the study, it can be concluded that there is a significant relationship between the level of anxiety and the quality of life of the elderly who experience chronic diseases at POSBINDU LANSIA, Tamansari Village. The direction of the relationship between the two variables is positive, meaning that the higher the anxiety, the better the quality of life. In addition, based on the anxiety levels and quality of life scores of the elderly experiencing chronic diseases at POSBINDU LANSIA, Tamansari Village, it can be observed that the majority of the elderly are at a normal level of anxiety and do not face issues with their quality of life.

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