Relationship Between Health Anxiety and Quality of Life in Elderly People with Chronic Diseases

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Abstract
Health anxiety is a condition in which a person has thoughts that there may be a threat to their health. Some of these fears and anxieties focus on health issues, such as the assumption of having a serious illness when in fact there is no health problem. The purpose of this study was to determine the relationship between health anxiety and the quality of life of elderly people with chronic diseases. This was a quantitative study using a cross-sectional method. There were 88 respondents in this study, who were selected using total sampling technique. Based on the results of the study, it was found that on average, elderly respondents did not have health anxiety and their quality of life tended to be good. The results of the analysis using the Spearman Rank test showed a significant result between health anxiety and quality of life with a value of 0.027 (p-value 0.05), indicating that health anxiety can affect the quality of life of elderly people with chronic diseases. The correlation coefficient analysis yielded a result of (-) 0.235, which means that the relationship is weak and negative. If health anxiety increases, quality of life will decrease, and conversely, if quality of life decreases, health anxiety will increase. The suggestion from this study is that the results can be used as a reference in addressing psychosocial problems in the elderly, especially health anxiety.
Keywords: health anxiety, quality of life, elderly with chronic diseases

INTRODUCTION

The elderly are defined as men or women who have reached the age of 60 and above. The World Health Organization (WHO) classifies the elderly into the following four categories: middle age is 45-59 years old, elderly is 60-74 years old, old age is 75-90 years old, and very old age is above 90 years old . Old age is one of the natural stages of human life, after spending about nine months in the womb, then being born, becoming a baby, growing up as a child, then entering adolescence, then adulthood, and finally old age (Hakim, 2020).

The elderly population is growing at a much faster rate than before. Between 2015 and 2050, the proportion of the world's population aged over 60 will almost double from 12% to 22% (WHO, 2022). Based on data from the Central Statistics Agency, Indonesia has entered an aging phase, marked by a high proportion of people aged 60 and above, exceeding 10% of the total population. In 2021, there was an increase in the proportion of elderly people reaching 110.82% or around 29.3 million people. The proportion of adults, especially the elderly, in Semarang City continued to increase in 2016, with the number of elderly people reaching 141 thousand or 8.17% to in 2020, the number of elderly people increased to 170 thousand or 9.29%. The increasing number of elderly people can affect health issues (Yuningsih et al., 2023).

Health problems experienced by the elderly include physical problems due to the aging process, characterized by decreased hearing and vision, fatigue, and reduced mobility (Rayendra et al., 2023). In addition to physical problems, there are mental problems that can affect the health of the elderly, such as stress, depression, and anxiety (Stanley and Beare, 2006) in (Habibie & Puspitasari, 2017). The elderly are more susceptible to diseases, especially chronic ones (Rahmah Burhan et al., 2023).

According to the National Center for Chronic Disease Prevention and Health Promotion, chronic diseases are broadly defined as conditions that last for 1 year or more and require ongoing medical attention or limit daily activities, or both. Chronic diseases such as heart disease, cancer, and diabetes (NCCDPHP, 2022). A survey by the Indonesian Medical Gerontology Association

(PERGEMI) indicates that 24.6% of the elderly population in Indonesia has a history of chronic diseases (PERGEMI, 2022). Based on data from the Semarang City Health Office in 2021, the highest number of non-communicable chronic diseases was found in the 45-65 age group, with a total of 148,705 cases (Suhas et al., 2022).

Based on data from the Central Java Provincial Health Office in 2022, the proportion of non-communicable disease cases in Central Java Province was as follows: hypertension (77%), diabetes mellitus (10%), obesity (8%), bronchial asthma (1%), heart disease (2%), COPD (1%), and stroke (1%) . The results of a study conducted by Hanaz Rona and Dwi Ernawati (2021) state that chronic diseases cause the elderly to become anxious and worried about their physical condition. The results of the logistic regression statistical test obtained a result of p = 0.005, so from these results it can be concluded that there is a relationship between chronic diseases and anxiety in the elderly (Rona et al., 2021).

Anxiety is a psychological problem that often occurs in elderly people with chronic diseases (Candrawati & Sukraandini, 2022). The incidence of anxiety in Indonesia ranges from 9% to 12% of the general population and 17% to 27% reported from general health care facilities (Rona et al., 2021). The impact of anxiety is a loss of concentration due to constant worry and fear, which leads to a decline in daily activities and reduces the sense of well-being in older adults (Mental Health America, 2015) in (Sonza et al., 2020). Changes in health, such as chronic diseases in the elderly, can affect the level of health anxiety (Rona et al., 2021).

Health anxiety is the experience of thinking that there may be a threat to one's health. Some of these fears and anxieties focus on health issues, such as the belief that one has a serious illness when in fact there is no problem (Anderson, R., Saulsman, L., & Nathan, 2020). The condition of hypochondriacal disorder in ICD-10 causes the emergence of obsessive thoughts, ideas, or fears about a disease. This disease tends to be one that is often experienced and tends to be persistent even with health insurance (Hoffmann et al., 2023). Health anxiety involves severe worry and fear of the consequences of suffering from illness. This condition can affect the quality of life of the elderly (Özdilek et al., 2019).

Quality of life is the level of satisfaction with the way of life experienced by the elderly in relation to physical and mental health and self-control in living a long life (H. Pratiwi, 2023). Quality of life is related to an individual's current condition and ability to maintain their physical and mental health. Furthermore, quality of life also includes a person's level of autonomy, social relationships, and environmental support (Chi et al., 2022). Based on research conducted by Ellia Ariesti (2021), the final multivariate analysis model shows that perceived barriers are variables related to the behavior of elderly people suffering from chronic diseases. The occurrence of chronic diseases in the elderly causes behavioral changes that can affect quality of life (Ellia Ariesti et al., 2021).

Quality of life as a multidimensional construct assesses an individual's health status subjectively in a holistic approach that considers not only physical aspects but also social and psychological aspects (Lang et al., 2021). Health-related anxiety in the elderly is associated with the uncertain recovery from chronic diseases because the disease progression process cannot be known with certainty (Bestari & Wati, 2016). Based on previous phenomena and research, health anxiety has a strong relationship with the quality of life of the elderly with chronic diseases.

METHOD

This study uses a quantitative correlation research design that explains relationships. Quantitative research is a research method based on positivism philosophy, used to study a specific population or sample. Data collection uses research instruments, and data analysis is quantitative/statistical, with the aim of describing and testing predetermined hypotheses (Sugiyono, 2020). This study uses a cross-sectional approach. A cross-sectional approach is a research method in which the researcher measures or observes independent and dependent variables only once at a time (Nursalam, 2017). This research was conducted in the working area of the Tlogosari Kulon Community Health Center from March to May 2024. The measuring instruments used in this study were the HAI (Health Anxiety Inventory) questionnaire and the EQ-5D-5L questionnaire. The

questionnaires used have been tested for validity and reliability and have been widely used in previous studies. This study has passed the research ethics test from the Telogorejo Semarang Health Sciences College Ethics Committee with number 036/IV/KE/STIKES/2024. During this research process, the researchers adhered to research ethics and respected human dignity, as well as considering the benefits and disadvantages of the research.

RESULTS AND DISCUSSION

The results of this study are presented in the form of tables showing the characteristics of the respondents and the relationship between *health anxiety* and quality of life.

Table 1. Frequency Distribution Based on Age Among the Elderly with Chronic Diseases (n=88)

Respondent Age	Frequency	Percentage (%)
45-59	18	20.5
60-74 years	63	71.6
75-90 years	7	8
Total	88	100

In the study conducted based on the analysis of Table 1, the most common data was found in the 60-74 age group, with a percentage of 71.6% (63 respondents). The World Health Organization (WHO) has divided the elderly into several criteria, including middle-aged elderly (*middle age*) aged 45-59 years, elderly aged 60-74 years, old aged 75-90 years, and *very* old aged 90 years and above (Anggraini et al., 2023). Based on these criteria, the aging process is a process that causes cumulative changes with increasing age, characterized by a decline in physical function, behavioral changes, and changes in the body's organ systems (Pranata et al., 2020).

In the study conducted based on the analysis of Table 1, the most prevalent data was found among the elderly aged 60-74 years, accounting for 71.6% (63 respondents). Entering the age of 60 is the beginning of old age, where they have to face various changes such as wrinkled skin, blurred vision, decreased balance, and various degenerative diseases (Rindayati et al., 2020). Increasing age can affect the immune system, which weakens, leading to an increase in acute and chronic diseases in the elderly, as well as an increase in health disorders in the elderly (Budiono & Rivai, 2021).

Aging is a process that becomes more apparent with age. This process is often associated with an increase in the incidence of chronic diseases due to a decline in the body's resistance to various external factors (Stanhope & Lancaster, 2014) in (Ariesti et al., 2021). Based on research conducted in China, chronic diseases are the leading cause of premature death in adults worldwide, and older adults are more vulnerable to most chronic diseases than younger adults. According to a global report from the World Health Organization, 80% of deaths caused by chronic diseases occur in low-and middle-income countries (Su et al., 2023).

Older adults with chronic diseases are a group that is vulnerable to various health and social problems (E. Pratiwi et al., 2023). Aging can affect older adults' ability to carry out their daily activities, thereby affecting their ability to fulfill their basic needs (Wijoyo & Daulima, 2020). The decline in functional and physical abilities of elderly people suffering from chronic diseases causes changes in psychosocial aspects such as loss of status, loss of relationships with others, and changes in lifestyle (Ulfa et al., 2021). Psychosocial changes can cause anxiety in the elderly, which is based on concerns about their health and physical ability to perform daily activities that can affect their quality of life (Adelia & Supratman, 2023).

Table 2. Frequency Distribution Based on Gender of Respondents Among the Elderly with Chronic Diseases (n=88)

Gender	Frequency	Percentage (%)
Male	19	21.6
Female	69	78.4
Total	**88**	**100**

The frequency distribution of gender based on data analysis in Table 2 shows that the majority of the research ts were elderly women, with a percentage of 78.4% (69 respondents). The frequency distribution of gender based on data analysis in Table 2 shows that the majority of the research ts were elderly women, with a percentage of 78.4% (69 respondents). The number of female elderly respondents who have chronic diseases is higher than that of male respondents. This may be influenced by their busy activities at home and their role as housewives, which is physically demanding and makes women prone to a weakened immune system, fatigue, and illness (Fimela, 2016) in (Rusmini et al., 2023).

Based on data from the 2017 Riskesdas, it shows that the elderly female population has a percentage of 52.52%, while the elderly male population has a percentage of 47.48% (Ainistikmalia, 2019). Elderly women are more vulnerable because of their dependence on others, both financially and physically. In addition, lifestyle factors can affect their condition. Elderly women tend to experience anxiety, depression, and stress, which can increase the risk of chronic diseases (Rusmini et al., 2023).

Based on brief interviews with elderly female respondents, they have experience in dealing with chronic diseases. At first, when they found out they had a chronic disease, they experienced fear and anxiety for some time, even for years. However, over time, the elderly tend to accept their condition well and begin to learn how to take care of themselves. Women tend to involve their feelings in dealing with problems, such as when facing illness (Rusmini et al., 2023).

Psychological problems that occur are based on physical and emotional health, which can affect the quality of life of the elderly. A low quality of life can be caused by health problems and anxiety about health conditions in the elderly (Pristina et al., 2024).

Table 3. Frequency Distribution Based on Respondents' Occupations Among the Elderly with Chronic Diseases (n=88)

Respondent Occupation	Frequency	Percentage (%)
Not working	74	84.1
Civil servant	1	1.1
Entrepreneur	7	8.0
Private	6	6.8
Total	**88**	**100**

Table 3 shows that the majority of participants in this study were elderly people who were no longer working, with a percentage of 84.1% (74 respondents). Table 3 shows that the majority of participants in this study were elderly people who were no longer working, with a percentage of 84.1% (74 respondents). Work is an activity carried out daily to meet the needs of life. Work can also describe a person's standard of living and can affect aspects of a person's life (Setyaningrum & Sugiharto, 2021). In this study, the majority of the elderly are those who are not working and spend more time with their families. As they enter old age, the elderly tend to suffer from chronic diseases, and around 80% of the elderly suffer from at least one type of disease (Juharna et al., 2021).

Based on observations, these non-working elderly individuals tend to spend their time participating in various community activities and spending time with family. Additionally, based on the analysis in Table 3, 8% (7 respondents) of the elderly work as entrepreneurs. Physical activities such as working are still performed by some elderly individuals because they have been accustomed to such activities since they were young, enabling them to continue doing so (Jumaiyah et al., 2020).

Table 4. Frequency Distribution Based on Chronic Diseases Among Elderly Respondents with Chronic Diseases (n=88)

Chronic Disease	Frequency	Percentage (%)
Chronic acid reflux	5	5.7
Arthritis	5	5.7
Diabetes	40	45.5
Hypertension	34	38.6
Tumor/Cancer	1	1.1
Stroke	2	2.3%
Total	88	100

Based on the analysis results in Table 4, the majority of elderly people suffer from diabetes mellitus with a percentage of 45.5% (40 respondents). Based on the analysis of data from 40 respondents suffering from diabetes mellitus, this is supported by the habits and eating patterns of the elderly. One of these is the habit of eating and drinking sweet foods. Eating habits are a unique way for each person to choose the foods they like and form their eating patterns according to their personal preferences. Therefore, each person's food choices are different.

Eating habits are how a person decides what to eat, influenced by physiological, psychological, and sociocultural factors (Hasdianah, 2013) in (Yusnanda et al., 2018).

Chronic diseases that occur in the elderly can reduce their physical condition. Psychological factors such as anxiety can have a significant impact on the lives of the elderly. The anxiety experienced can make the elderly more susceptible to disease (Candrawati & Sukraandini, 2022). If psychological factors are disrupted, it will affect their quality of life because chronic diseases can weaken the immune system (Gamayanti & Hidayat, 2019).

Table 5. Analysis of the Relationship Between *Health Anxiety* and Quality of Life in the Elderly with Chronic Diseases (n=88)

Variable	Correlation Coefficient	Sig (2-tailed)	N
Health anxiety with quality of life	-0.235	0.027	8

Based on the analysis results in Table 5, the majority of elderly people suffer from diabetes mellitus with a percentage of 45.5% (40 respondents). Based on Table 4.8 using the Spearman rank statistical test, a significant result was obtained between health anxiety and quality of life with a value of 0.027 (p-value < 0.05), indicating that health anxiety can affect the quality of life of elderly people with chronic diseases. The analysis of the strength of the relationship yielded a strength of (-) 0.235, which means a weak relationship with a negative direction. If health anxiety increases, quality of life will decrease, and conversely, if quality of life decreases, health anxiety will increase.

Health anxiety is the belief in uncontrollable thoughts about one's illness. This fear is often associated with health information sourced from the internet, a condition known as cyberchondria (Sofia Airoldi, Daniel C. Kolubinski, Ana V. Nikčević, 2021) in (Made et al., 2024). Meanwhile, quality of life is a subjective view related to health conditions, including physical and psychological functioning, social well-being, and adequate physical ability. It also involves feelings of personal adequacy, contribution and usefulness, participation in social activities, and good economic stability (Chendra et al., 2020).

Based on research conducted by Wilmer (2021), anxiety disorders are conditions that can have a negative impact on quality of life, which in turn can affect health conditions. In general, quality of life impairments among anxiety disorders fall into the following categories: physical health, emotional (mental) health, work or education, social functioning, and independence (Wilmer et al., 2021). Research conducted by Ribeiro (2020) emphasizes that overall quality of life declines with age. This study found that higher levels of anxiety and depression worsen a person's quality of life (Ribeiro et al., 2020).

CONCLUSION

Based on the research conducted, the results show that health anxiety is related to the quality of life of elderly individuals with chronic illnesses. If health anxiety increases, quality of life decreases, and conversely, if quality of life decreases, health anxiety increases. For future researchers, it is hoped that they can conduct further studies by providing interventions to reduce health anxiety issues, particularly among elderly individuals with chronic illnesses.

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