



## Quality of Life of Elderly with Hypertension in Coastal Areas

Aminatul Fitri<sup>1</sup>, Agrina<sup>2\*</sup>, Arneliwati<sup>3</sup>, Febriana Sabrian<sup>4</sup>, Reni Zulfitri<sup>5</sup>

<sup>1,2,3,4,5</sup>Faculty of Nursing, Universitas Riau, Riau, Indonesia

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### ABSTRACT

**Introduction:** The prevalence of hypertension in the elderly is increasing and it can affect the quality of life of the elderly. The purpose of the study was to obtain a description of the quality of life of elderly people with hypertension in coastal areas. **Methods:** This study used descriptive quantitative with a sample size of 100 elderly people with hypertension in the Umban Sari health center working area. The measuring instrument used is the WHsOQOL-BREF quality of life questionnaire. The data is processed and grouped and analyzed. The data will be presented in the form of a frequency distribution. **Results:** The results of this study indicate that the elderly are in pre-hypertension, grade 1 hypertension and the quality of life of the elderly is 100% high. The description of the quality of life of the elderly found that 65 respondents (65%) experienced satisfaction in getting along, 65 respondents (65%) very often felt meaningful life, 46 respondents (46%) for opportunities for fun or recreation in moderation and 64 respondents (64%) said they rarely experienced uncomfortable feelings such as loneliness, despair, anxiety, sadness and moodiness. There were 59 respondents (59%) who did not take medical drugs and 79 respondents (79%) did not take herbal drugs and 96 respondents (96%) lived with their families. 95% of the elderly have never had a stroke and do not experience movement limitations. **Conclusion:** The quality of life of elderly people with hypertension who live in coastal areas is good

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### Corresponding Author:

Agrina,  
Professor,  
Faculty of Nursing,  
Universitas Riau,  
Jl. Pattimura, Cinta Raja, Kec. Sail, Kota Pekanbaru, Riau, 28127, Indonesia  
Email: [agrina@lecturer.unri.ac.id](mailto:agrina@lecturer.unri.ac.id)

### 1. Introduction

The elderly population continues to increase globally. In Indonesia, data from the Central Statistics Agency (BPS) shows that in 2020, the number of elderly people reached around 9.92% of the total population, and this figure is predicted to continue to increase (Sari et al., 2020). As people age, the risk of chronic diseases such as hypertension increases. Hypertension is a medical condition characterized by persistently high blood pressure and is one of the leading causes of morbidity and mortality in the elderly. Hypertension is a non-communicable disease characterized by a chronic increase in blood pressure with systolic blood pressure values  $>140$  mmHg and or diastolic blood pressure  $>90$  mmHg. Increased blood pressure can occur because the heart works hard to pump blood to meet the needs of oxygen and nutrients in the body. High blood pressure is one of the world's leading risk factors for death and disability. The number of people living with hypertension (blood pressure of  $\geq 140$  mmHg

systolic or  $\geq 90$  mmHg diastolic or on medication) doubled between 1990 and 2019, from 650 million to 1.3 billion. This common, deadly condition is an important public health problem that leads to stroke, heart attack, heart failure, kidney damage and many other health problems. A study of 87 behavioural, environmental, occupational and metabolic risk factors found that high systolic blood pressure ( $\geq 110$ –115 mmHg) was the single most important risk factor for early death worldwide, leading to an estimated 10.8 million avoidable deaths every year, and a burden of 235 million years of life lost or lived with a disability (disability-adjusted life years, DALYs) annually. High blood pressure causes more deaths than other leading risk factors, including tobacco use and high blood sugar (WHO, 2023).

The World Health Organization estimates that the number of people with hypertension will continue to increase along with the growing population. In 2025, it is projected that around 29 percent of the world's citizens will be affected by hypertension (Putri C & Meriyani, 2020). The prevalence of hypertension in the world is predicted to be 1.5 billion people affected by hypertension, and every year 10.44 million people die from hypertension and its complications. The increasing cases of hypertension are caused by many factors, including heredity or genetics, gender, obesity, smoking, lack of physical activity, excessive salt consumption, lipid (fat) metabolism disorders, alcohol consumption, psychosocial conditions and age  $>55$  years (Ministry of Health, 2020). Patients who experience hypertension, especially the elderly, will experience symptoms such as headaches or heavy nape, dizziness (vertigo), heart palpitations, easy fatigue, and blurred vision (Goodhart AK, 2016). Hypertension in the elderly has a broad impact. Physically, hypertension increases the risk of cardiovascular disease, including coronary heart disease and stroke. According to research by Yusuf et al., (2004), elderly people with hypertension have a 2-3 times higher risk of developing coronary heart disease compared to elderly people without hypertension. In addition, hypertension is also associated with decreased cognitive function. Research by Williamson et al., (2019) showed that high blood pressure contributes to the development of dementia in the elderly. From a psychological perspective, elderly people with hypertension often experience anxiety and depression. This can be caused by feelings of worry about their health condition and the inability to carry out normal daily activities. Social isolation is also a serious problem, where the elderly with hypertension tend to reduce social interaction due to physical limitations and fear of complications. This condition will certainly affect the quality of life of the elderly who experience hypertension.

Quality of life is an important indicator that reflects a person's physical, psychological and social well-being. In older adults with hypertension, quality of life often suffers significantly. This is due to the physical impact of hypertension such as headaches, dizziness, fatigue, as well as the risk of complications such as heart disease, stroke, and kidney failure. In addition, psychological and social aspects such as anxiety, depression, and social isolation also affect the quality of life of the elderly. Knowing the quality of life of older adults with hypertension is important for several reasons. First, it can help in designing appropriate interventions to improve their well-being. For example, by knowing which aspects are most affected by hypertension, medical and psychosocial interventions can be focused on these areas. Secondly, quality of life assessment can be an indicator of the effectiveness of the treatment provided. Thus, regular evaluation of quality of life can help in customizing the therapy to be more effective.

The quality of life of older adults with hypertension is an important aspect to consider in the health management of older adults with hypertension. The physical, psychological, and social impacts of hypertension can significantly reduce quality of life. Several studies have explored the quality of life of older adults with hypertension. The study by Lee et al., (2006) found that older adults with hypertension had lower quality of life scores compared to older adults without hypertension. This study also reported lower levels of life satisfaction and more physical health complaints. Another study by Bowling et al., (2013) showed that multifactorial interventions, including blood pressure management, psychosocial support, and physical activity promotion, can significantly improve the quality of life of older adults with hypertension. Although there have been many studies that describe the quality of life of elderly people with hypertension, studies on the picture of life of elderly people with hypertension in coastal areas have not been widely studied even though coastal areas have their own characteristics. In addition,

research on the description of the quality of life of elderly hypertension in coastal areas is important considering the high rate of hypertension in coastal areas. The most common disease experienced by the people of Pekanbaru City is hypertension, where around 21 Puskesmas in Pekanbaru City reported that the hypertension rate increased every year, where the rate of hypertension in the Umban Sari Health Center area with a working area in the coastal area also increased. The purpose of this study is to see a picture of the quality of life of the elderly with hypertension in coastal areas. This study was carried out because there was no specific research related to the description of the quality of life of the elderly in coastal areas even though in Riau there were many coastal areas. Moreover, this research is important for policymakers in handling hypertension in coastal areas to achieve a good quality of life for the elderly.

## 2. Method

This research is quantitative descriptive research. The research variable is the quality of life of the elderly with hypertension. The study population was elderly with hypertension which amounted to 641 cases, and the sample used was 100 hypertensive elderly who were taken using the slovin formula. The selected sample is elderly with hypertension, lives in the Umban Sari health center work area by purposive sampling method, and is willing to be a respondent. The instrument used in this study, the WHOQOL-BREF (World Health Organization Quality Of Life-BREF) quality of life questionnaire, has been tested for validity and reliability. The WHOQOL-BREF quality of life instrument is a development of the WHOQOL-100 instrument. Both instruments were created by a team from the World Health Organization (WHO). According to Sekarwiri, (2008) the WHOQOL-BREF instrument is a valid ( $r = 0.89-0.95$ ) and reliable ( $R = 0.66-0.87$ ) measuring tool. The WHOQOL-BREF instrument is a summary of the World Health Organization Quality Of Life (WHOQOL)-100 which consists of 26 questions. WHOQOL-BREF consists of two parts derived from overall quality of life and general health, and one part consisting of 24 questions derived from WHOQOL-100. There are four domains combined to assess the WHOQOL-BREF namely the physical, psychological, social relations, and environmental domains (World Health Organization, 2012). All questions are based on a five-point Likert scale (1-5) that focuses on intensity, capacity, frequency and evaluation. The data that has been obtained, analyzed using the computer program SPSS. Data were grouped in the form of univariate data and displayed in the form of frequency distribution data (percentage). This study has passed the ethical test by the University of Riau's nursing ethics committee. The ethical clearance number is 2054/UN19.5.1.8/KEPK.FKp/2024

## 3. Results and Discussion

### 3.1 Results

#### a. Univariate Analysis

**Table 1**  
Respondent Characteristics

Characteristics	Frequency	Percentage (%)
Age		
Early elderly	92	92
Old Age Elderly	8	8
Sex		
Women	69	69
Man	31	31
Education level		
Low	87	87
High	13	13
Hypertension duration		
<5 years	53	53
5-10 years	27	27
>10 years	20	20
Hypentension level		

Pra- Hypentension	33	33
Hypentension grade 1	42	42
Hypentension grade 2	25	25
Medicine drug		
None	59	59
Yes	41	41
Herbal drug		
None	79	79
Yes	21	21
Living with		
Family	96	96
Alone	4	4
Stroke History		
None	95	95
Yes	5	5
Moving limitation		
None	95	95
Yes	5	5

Table 1 shows that of the 100 respondents studied, the distribution of respondents based on the age range was the most elderly with 92 respondents (92%), based on the distribution of gender the most were women with 69 respondents (69%), based on the distribution of the last education obtained the most with low education, namely 87 respondents (87%) then the most history of hypertension with a range of <5 years, namely 53 respondents (53%), at the time of the current tension examination the most grade 1 hypertension with 42 respondents (42%), Then based on the history of diseases other than hypertension, the majority of respondents did not have a history with 77 respondents (77%), then the majority of medical drugs consumed by the majority of respondents did not have or did not consume medical drugs with 59 respondents (59%) while for herbal medicines the respondents also did not consume with 79 respondents (79%), then the majority of elderly people lived with family with 96 respondents (96%), the majority of respondents did not have a history of stroke with 95 respondents (95%) and respondents did not experience limb limitations with 95 respondents (95%).

**Table 2**

## Quality of life of the elderly

quality of life of the elderly	Frequency	Percentage (%)
High	100	100

Table 2 shows that all respondents (100 respondents) experience high quality of life. The detailed assessment of the quality of life of the elderly is described in the following table:

**Table 3**

## Frequency distribution of elderly quality of life question items

item	Very bad	Bad	Mediocre	Good	Very
Elderly assessment of quality of life	0 (0%)	3 (3%)	25 (25%)	58 (58%)	14 (14%)

Table 3 shows that 58 respondents (58%) gave an elderly assessment of good quality of life

**Table 4**

## Frequency distribution of elderly life satisfaction question items

Items	Very unsatisfactory	Unsatisfactory	Mediocre	satisfactory	Very satisfactory
Health personal	0 (0%)	15 (15%)	38 (38%)	39 (39%)	8 (8%)
Elderly sleep	1 (1%)	12 (12%)	46 (46%)	33 (33%)	8 (8%)
Daily living activity	0 (0%)	11 (11%)	40 (40%)	43 (43%)	6 (6%)
Working ability	0 (0%)	17 (17%)	39 (39%)	40 (40%)	4 (4%)
By self	0 (0%)	3 (3%)	32 (32%)	57 (57%)	8 (8%)

Items	Very unsatisfactory	Unsatisfactory	Mediocre	satisfactory	Very satisfactory
Getting along/being friends with others	0 (0%)	1 (1%)	25 (25%)	65 (65%)	9 (9%)
Husband and wife relationship	3 (3%)	6 (6%)	25 (25%)	48 (48%)	18 (18%)
Support from friends	0 (0%)	2 (2%)	24 (24%)	60 (60%)	14 (14%)
Living condition	0 (0%)	0 (0%)	22 (22%)	58 (58%)	20 (20%)
Health services	1 (1%)	4 (4%)	34 (34%)	47 (47%)	14 (14%)
Transportation	1 (1%)	4 (4%)	22 (22%)	58 (58%)	15 (15%)

Table 4 shows that 65 respondents (65%) experienced satisfaction in getting along or making friends with others then 17 respondents (17%) experienced dissatisfaction with their ability to work.

**Table 5**  
Frequency distribution of elderly health question items

Items	Not at all	Little In	Moderation	Very often	In excessive amounts
Physical complaints felt	15 (15%)	35 (35%)	29 (29%)	17 (17%)	4 (4%)
Need for doctor's treatment	24 (24%)	30 (30%)	23 (23%)	20 (20%)	3 (3%)
The need to enjoy life	0 (0%)	4 (4%)	28 (28%)	55 (55%)	13 (13%)
Feeling that life is meaningful	1 (1%)	5 (5%)	13 (13%)	65 (65%)	16 (16%)
Ability to concentrate	1 (1%)	9 (9%)	33 (33%)	47 (47%)	10 (10%)
Feeling safe in daily life	0 (0%)	4 (4%)	39 (39%)	46 (46%)	11 (11%)
Healthy living environment	0 (0%)	1 (1%)	29 (29%)	51 (51%)	19 (19%)
Facilities for daily activities	0 (0%)	6 (6%)	23 (23%)	53 (53%)	18 (18%)
Ability to accept body appearance	1 (1%)	6 (6%)	44 (44%)	34 (34%)	15 (15%)

Table 5 shows that in the last four weeks the majority of 65 respondents (65%) very often felt meaningful life and 35 respondents (35%) felt few physical complaints.

**Table 6**  
Frequency distribution of question items on fulfillment of daily needs

	Not at all	A little	In moderation	Very often	Fully experienced
Having enough money to fulfill needs	1 (1%)	6 (6%)	44 (44%)	34 (34%)	15 (15%)
Availability of information for life from day to day	1 (1%)	11 (11%)	41 (41%)	39 (39%)	8 (8%)
Opportunities for fun/recreation	4 (4%)	25 (25%)	46 (46%)	21 (21%)	4 (4%)

Table 6 shows that in the last four weeks, the majority of respondents had a moderate amount of money for fun or recreational opportunities and 6 respondents (6%) slightly had enough money to meet their needs.

**Table 7**  
Frequency distribution of elderly feeling questions

item	Never	Rarely	Quite often	Often	Always
Uncomfortable feelings such as loneliness, hopelessness, anxiety, sadness and moodiness	10 (10%)	64 (64%)	15 (15%)	9 (4%)	2 (2%)

Table 7 shows that the majority of 64 respondents (64%) said they rarely experience uncomfortable feelings such as loneliness, hopelessness, anxiety, sadness and moodiness.

### 3.2 Discussion

Elderly is someone experiencing gradual physical, mental and social decline. One of the problems often experienced by the elderly is the vulnerability of the physical condition of the elderly to various diseases due to reduced body resistance in the face of external influences and decreased efficiency of homeostatic mechanisms, namely the cardiovascular system. Health problems resulting from the aging process and often occur in the cardiovascular system which is a degenerative process, including hypertension. Old age is not only characterized by physical deterioration, but can also affect mental conditions. Mental health is an important aspect of elderly health. Mental health issues faced by the elderly include social isolation and loneliness, depression, suicide, and alcohol addiction. According to Sutinah & Maulani, (2017), the elderly are the group that is most easily and widely affected by health problems. The older the person gets, the more the strength and endurance of the person's body decreases. A decrease in body power to a certain level can cause a person to experience health problems, especially in the elderly. The results of this study indicate that the majority of elderly people are in the early elderly range. Elderly is synonymous with various declines in health status, especially physical health status. Various theories about the aging process show the same thing. The declining health status of the elderly as they age will affect the quality of life of the elderly.

Increasing age will be accompanied by the onset of various diseases, decreased body function, body balance and the risk of falling. The decline in the health status of the elderly is in contrast to the wishes of the elderly to stay healthy, independent and be able to carry out activities as usual, such as bathing, dressing, moving independently. The results of Brett et al., (2012) study showed that depression was the biggest factor affecting quality of life ( $p=0.000$ ). Some of these things can cause a decrease in the quality of life of the elderly. A disease that is often experienced by the elderly is hypertension. Hypertension can cause problems with quality of life, especially psychological aspects because psychological aspects have an important role in the process of developing a person's disease. Psychological aspects include body image, and appearance, negative feelings, positive feelings, self-esteem, individual confidence, thinking, learning, memory, and emotional control, so that the quality of life of psychological aspects will be disturbed and cause anxiety, feel nervous, sad and easily affected by depression. Stress can affect the level to reduce quality of life and become one of the factors contributing to reducing quality of life (Hamidah, 2019). In this study, it was found that 64% of elderly people rarely experienced uncomfortable feelings such as loneliness, despair, anxiety, sadness and moodiness.

Although elderly hypertension based on several studies can affect quality of life, in this study the quality of life of the elderly was 100% good, supported by the elderly's assessment of their quality of life as good and very good. Based on the researcher's assumption, this is because hypertensive elderly people in this study are still at the pre-hypertension level and level 1 hypertension with mild hypertension category. This means that they have not felt various symptoms and limitations plus the satisfaction of elderly life is at a good level, especially 65% experiencing satisfaction in getting along or making friends with others and only 17 respondents (17%) experiencing dissatisfaction with their ability to work. The importance of social relationships in people with hypertension is because the social relationships provided by others will have a positive impact on people with hypertension to improve their health. Social relationships in people with hypertension can be in the form of emotional

relationships such as reminding sufferers to keep blood pressure stable, reminding sufferers to always take medicine, sufferers get more attention, affection and care from the people around them (Putri & Supratman, 2021).

Improving the quality of life in the elderly requires support from the family, where in old age the elderly really need attention, both in terms of health or in their daily lives, such as care and appreciation for the elderly (Damayanti, 2018). The family is the main support system for the elderly in maintaining their health. The role of the family in caring for the elderly includes maintaining or caring for the elderly, maintaining and improving mental status, anticipating socio-economic changes, and providing motivation and facilitating spiritual needs for the elderly. In caring for the elderly, the role of the family to improve lifestyle and health status is very important and can be seen in various ways. Such as by creating a safe environment for the elderly both physically and socially. In this study it was seen that 96% of the elderly lived with their families. This is certainly an influential factor in the good quality of life of the elderly in this study. Studies have proven that the presence of family for the elderly who experience hypertension has a significant effect because in efforts to control hypertension in the elderly, supervision from the family is needed. It was found that there was a significant relationship between family function and the quality of life of the elderly who came from families with healthy family functions had a possibility of having a good quality of life 25 times greater than the elderly with unhealthy family functions, and was also strengthened by research Mulyati et al., (2018) there is a correlation of social support dimensions of appreciation support, information support and quality of life and well-being, family social support has a positive correlation with the quality of life of the elderly.

#### 4. Conclusion

The quality of life of elderly people with hypertension who live in coastal areas is 100% high with the majority of hypertension levels at the pre-hypertension level and grade 1 hypertension. The description of the quality of life of the elderly found that the majority of elderly people experience satisfaction in getting along, very often feel meaningful life, have opportunities for fun or recreation in moderation. The majority of elderly people rarely experience uncomfortable feelings such as loneliness, despair, anxiety, sadness and moodiness. Most elderly people do not take any medical medication and almost all elderly people live with their families. Almost all of the elderly had never had a stroke and had no movement limitations. It is important for elderly families to maintain the health conditions of the elderly so that the quality of life of the elderly becomes better and the results of this study can be used as a recommendation for health centers in the preparation of hypertension treatment programs, especially for the elderly

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