

Duration Of Hypertension And Quality Of Life Of People With Hypertension In Aceh, Indonesia

Harvina Sawitri¹, Fury Maulina¹, Yuziani²

¹Department of Public Health, Faculty of Medicine, Universitas Malikussaleh

² Department of Pharmacology, Faculty of Medicine, Universitas Malikussaleh

Correspondence: Harvina Sawitri

Email: harvina.sawitri@unimal.ac.id

Abstract: Hypertension has affected on a person's quality of life, particularly on elderly people, including their social life, mental health, and psychological function. As a result, the elderly's quality of life will suffer, as will their life expectancy.

Objectives: This study aimed to determine the relationship between the duration of hypertension and the quality of life of those who have hypertension.

Patients and methods: A descriptive study with a cross-sectional survey was conducted with participants from the Management of Chronic Diseases Program (Prolanis) in primary care in Muara Dua, Lhokseumawe, Aceh, Indonesia. We employed a total sampling technique (35 participants) and collected data through guided interviews using WHOQOL-Bref questionnaires.

Results: We discovered that participants with hypertension for less than five years were 45.7%, while those with hypertension for more than five years were 54.3%. Physical domain (57.1%), psychological domain (57.1%), and environmental domain (51.4%) all fall into the "good" category of life quality measurement. Meanwhile, social relationship were in the moderate category (42.9%). The following p values demonstrate the association between the duration of hypertension and quality of life: 0.460; 0.719; 0.635; and 0.975.

Conclusion: There is no significant relationship between hypertension duration and quality of life among hypertensive patients enrolled in the Prolanis Program in Aceh, Lhokseumawe.

Keywords: quality of life, duration of hypertension, hypertension, prolanis

Introduction

Hypertension is known as the "silent killer disease". Around 1.13 billion people suffer worldwide, with a 13% mortality rate, 64 million crippled, and 7 million dying each year. It is anticipated that by 2025, one in every three adults over the age of 20, or approximately 1.56 billion people, would have hypertension (1). According to the results of the 2018 Basic Health Research (Riskesdas), the prevalence of adults over the

age of 18 with high blood pressure is 34.11% in the United States (2). Meanwhile, Riskesdas reported in 2013 that the prevalence of hypertension in Indonesia at the age of 18 was 25.8% (3).

Hypertension is defined as an increase in blood pressure with systolic >140 and diastolic >90 , and it is a significant public health issue (1). Aceh likewise saw an upsurge in the number of hypertensive patients. The prevalence of hypertension in Aceh was 21.5% in 2015 and climbed to 26.45% in 2018, while Lhokseumawe had a prevalence of 27.43% (4).

Long-term and continuous hypertension can cause strokes, heart attacks, and heart failure, and is the leading cause of chronic kidney failure (5). Hypertension complications produced physical and psychological changes in the sufferer (6). Hypertension can also have an impact on a person's socioeconomic life and quality of life. Individuals with hypertension encounter symptoms such as headaches, depression, anxiety, and fatigue, and, therefore, affecting a person's quality of life on multiple dimensions (7). The physical impact of hypertension can be evident in the presence of coronary artery blockage and infarction, left ventricular hypertrophy, heart failure, triggering cerebrovascular diseases, and coronary arteriosclerosis, as well as being the leading cause of death. Patients with hypertension may believe that their lives are meaningless due to their weaknesses and the process of hypertension, which is a long-term disease. Furthermore, an increase in blood flow to the brain causes the aged to have difficulties concentrating and being uncomfortable, which has an impact on social relationships since they do not want to socialize, which can create discomfort and affect their quality of life (8).

Quality of life is defined as an individual's subjective assessment of his or her physical, psychological, social, and spiritual well-being. The World Health Organization defines quality of life as an individual's view of their position in life in relation to their objectives, aspirations, standards, and concerns in the context of the culture and value systems in which they live (9). Because high blood pressure causes significant food restrictions, changes in daily and recreational activities, and excessive stress on the sick, it can have a detrimental impact on the patient's quality of life (10). This study was conducted to determine relationship between duration of hypertension and the quality of life of patients with hypertension in Lhokseumawe, Aceh, Indonesia.

Material and Methods

A descriptive study with a cross-sectional survey was conducted to explore the characteristics of patients with hypertension. The samples for this study were chosen using total sampling technique of the Prolanis Program (35 participants) based on data as of January 2022 in primary care of Muara Dua, Lhokseumawe, Aceh, Indonesia. We used the WHOQOL-BREF (World Health Organization Quality Of Life-BREF) questionnaire. It comprises of 4 domains of quality of life (physical, psychological, social and

environmental) through guided interviews. We, then, applied the bivariate test to determine the relationship between the duration of hypertension and quality of life by using the chi-square test.

Results

Table 1 Participant characteristics (N=35)

Charateristic	Total (n)	Percentage (%)
Age (in years)		
36-45	3	8.6
46-55	18	51.4
56-65	11	31.4
>65	3	8.6
Sex		
Male	3	8.6
Women	32	91.4
Duration of Hypertension (in years)		
1-5	16	45.7
>5	19	54.3

Source: Primary data, 2022

The study included 35 individuals, with more than half being 46-55 years old (51.4%), women (91.4%), and 19 of 35 (54.3%) having hypertension for more than five years.

Table 2 Quality of Life (N=35)

Category	Domain							
	Physical		Psychological		Social		Environmental	
	(n)	(%)	(n)	(%)	(n)	(%)	(n)	(%)
Very bad	0	0	0	0	0	0	0	0
bad	0	0	0	0	0	0	0	0
Moderate	14	40,0	9	25,7	15	42,9	11	31,4
Good	20	57,1	20	57,1	11	31,4	18	51,4
Very good	1	2,9	6	17,1	9	25,7	6	17,1

Source: Primary data, 2022

Table 2 shows the participant's quality of life based on four domains. We discovered that the physical domain (57.1%), psychological domain (57.1%), and environmental domain (51.4%) all fall into the good category. Meanwhile, in the social domain, 15/35 respondents (42.9%) fell into the moderate category.

Tabel 3. Duration of Hypertension and Quality of Life

Duration of Hypertension (in Years)	Physical Domain				Psychological domain				Social Domain				Environmental Domain	
	Moderate	Good	Very Good	pv	Moderate	Good	Very Good	pv	Moderate	Good	Very Good	pv	Moderate	Good
1-5	1 (6.3)	8 (50)	7 (43.8)	0.46	3 (18.8)	8 (50)	5 (31.3)	0.72	3 (18.8)	6 (37.5)	7 (43.8)	0.63	3 (18.8)	8 (51.4)
>5	0 (0)	12 (63.2)	7 (36.8)		3 (15.8)	12 (63.2)	4 (21.1)		6 (31.6)	5 (26.3)	8 (42.1)		3 (15.8)	12 (78.6)

Table 3 displays there was no relationship between duration of hypertension and quality of life in physical, psychological, social, and environmental domains.

Discussion

1. Participant Characteristics

The average age for hypertension is over 40 years old (11). According to BPS (Central Bureau of Statistics) forecasts, Indonesia's elderly will account for one-fifth of the total population in 2045. This occurrence is the outcome of a demographic transition. The demographic transition from an infectious to an aging population is accompanied by an epidemiological transition from infectious to noncommunicable diseases. Indonesia is now experiencing a low death and birth rate. Increased nutrition, improved sanitation, and better economic situations, as well as more suitable health facilities, all contribute to a lower mortality rate or a longer human life (12). The majority of prolans participants with hypertension in this study were female, with 32 respondents (91.4%). Women are more concerned about environmental conditions and their health since they are more susceptible to diseases and physical disorders (13).

In addition, according to the literature, rising age produces physiological changes in the body such as thickening of artery walls due to a buildup of collagen compounds in the muscle layer, causing blood vessels to constrict and become stiff beginning at the age of 45. There is also an increase in peripheral resistance and

sympathetic activity, as well as a lack of baroreceptor sensitivity (regulating blood pressure and the role of the kidneys, blood flow) (14).

2. Quality of Life

Hypertension is a chronic condition that can be induced by a variety of factors and has a wide range of consequences. In addition to affecting the organs of the body, hypertension can have an impact on a person's socioeconomic life and quality of life. People with hypertension had lower WHOQOL-Bref scores in almost all domains than people without hypertension. This is because hypertension can impair vitality, social function, and mental health (7).

Physical health domain include daily activities such as drug dependence, fatigue, mobility, pain and discomfort, sleep and rest, and job capacity. According to the findings, 20 participants, or 57.1% of Prolanis participants with hypertension, had good quality of life in terms of physical health. Good physical health is obtained when patients can control their disease on a regular basis by receiving regular and effective therapy, allowing clinical symptoms to be decreased and the incidence of complications to be reduced. As such, this is consistent with the goal of conducting Prolanis program in order to attain an ideal quality of life for those suffering from chronic conditions such as hypertension (15). The domain of psychological well-being is related to an individual's mental condition. The mental state relates to whether or not the individual is able to adjust to varied developmental demands based on his abilities, both internal and external pressures. Twenty respondents' quality of life in terms of psychological well-being fell into the good group (57.1%). According to Chen Qiu's (2019) research in China, a person with hypertension can have good psychological health due to good self-management and psychological resilience (16).

Personal interactions, social support, and sexual activity all contribute to quality of life in the realm of social relations. According to the findings of this study, 15 respondents (42.9%) have moderate social ties, 11 respondents (31.4%) have good social relations, and 9 respondents (25.7%) have very good social relations. Personal well-being and social welfare can be increased by enhancing the attention of life partners, family, and others around them. A person's major defense against loneliness is social support (17). As a result, older persons who have a high amount of social support are less likely to be lonely. Social support can take the form of providing an opportunity for the aged to feel socially connected, have enough social resources, connectedness with others, or a sense of group cohesion. It is clear that the elderly rely on other people for both economic and social support. Living with family is the finest place to spend your golden years because family is still the most important support system for the elderly. The elderly will be content if they have good health, a supportive social environment, appropriate financial resources, and positive interpersonal relationships (12).

The environmental domain encompasses financial resources, freedom, physical safety and security, health care and social care, home environment, opportunities for new information and skills, participation and opportunity for recreation or fun activities, physical environment, and transportation. In the Prolanis participants with hypertension, the quality of life in the environmental domain was determined to be 18 responses (51.4 percent) in the good category. Good environmental quality of life can be attributed to the cleanliness of the senior house and availability to cheap health treatments. The elderly have superior environmental quality since their living conditions are good. This could be because the majority of the elderly live with children or extended family, allowing them to live in a well-maintained property with the assistance of their relatives. Quality of life is described by the World Health Organization Group (WHOQOL Group) as an individual's view of his position in life in the context of the cultural and value system in which the individual lives, and is related to objectives, expectations, standards, and worries. As a result, the quality of life is interconnected between each area to generate a good quality of life in general (14).

3. Duration of Hypertension and Quality of Life

The results indicated that there was no association between the length of time suffering from hypertension and the quality of life of the patient with hypertension. The findings of this study are consistent with the findings of Abdiana (2019), who found no association between the duration of hypertension suffering and the quality of life of Prolanis participants with hypertension (11). Another study conducted in Nepal found that the duration of hypertension was not a predictor or factor affecting quality of life in the physical and mental domains (9). The absence of a relationship between the length of time suffering from hypertension and the quality of life of the elderly with hypertension in this study is thought to be due to other factors, specifically the lack of a significant difference between the health status of the elderly suffering from hypertension 1 year and the elderly suffering from hypertension less than 1 year. According to the statement, some elderly people with hypertension for less than a year believe their health situation is still poor, with other comorbidities affecting their quality of life (8).

Conclusion

The majority of patients who participated in the Prolanis program had hypertension for more than five years. The distribution of quality of life according to categories was attained in the good category in the domains of physical health, psychological well-being, and connections with the environment. The realm of social relations was classified as moderate. There was no relationship between the length of hypertension and the quality of life.

References

1. World Health Organization. A global brief on hypertension: silent killer, global public health crisis. 2015.
2. Badan Penelitian dan Pengembangan kesehatan Kementerian Kesehatan RI. Laporan Hasil Riset Kesehatan Dasar (Riskesdas) 2018 Hipertensi. Jakarta; 2019.
3. Badan Penelitian dan Pengembangan kesehatan Kementerian Kesehatan RI. Riset Kesehatan Dasar (Riskesdas) 2013 Penyakit Tidak Menular. Jakarta; 2013.
4. Badan Penelitian dan Pengembangan kesehatan Kementerian Kesehatan RI. Laporan Provinsi Aceh Riskesdas 2018 Hipertensi. Jakarta; 2018.
5. Laili N, Purnamasari V. Hubungan Modifikasi Gaya Hidup Dengan Kualitas Hidup Pasien Hipertensi Di Uptd Pkm Adan Adan Gurah Kediri. *J Iklkes (Jurnal Ilmu Kesehatan)*. 2019;10(1):66–76.
6. Irawan E, Mulyana H. Faktor-Faktor yang berhubungan dengan Kualitas Hidup Pasien Hipertensi Literatur Review. *J keperawatan kebidanan Stikes Mitra Kencana Tasimalaya [Internet]*. 2019;3(1):25–33. Available from: <http://download.garuda.ristekdikti.go.id/article.php?article=1764666&val=18851&title=Faktor-Faktor Yang Berhubungan Dengan Kualitas Hidup Pasien Hipertensi Literature Review>
7. Anbarasan SS. Gambaran Kualitas Hidup Lansia Dengan Hipertensi Di Wilayah Kerja Puskesmas Rendang Pada Periode 27 Februari Sampai 14 Maret 2015. *Intisari Sains Medis [Internet]*. 2015;4(1):113–24. Available from: <https://www.isainsmedis.id/index.php/ism/article/view/57>
8. Dwi YP, Siyam N. Faktor Risiko Kualitas Hidup Lansia Penderita Hipertensi. *Indones J Public Heal Nutr*. 2021;1(1):407–19.
9. Bhandari N, Bhusal BR, K.C. T, Lawot I. Quality of life of patient with hypertension in Kathmandu. *Int J Nurs Sci [Internet]*. 2016;3(4):379–84. Available from: <http://dx.doi.org/10.1016/j.ijnss.2016.10.002>
10. Azar FE, Solhi M, Chabaksvar F. Investigation of the quality of life of patients with hypertension in health centers. *J Educ Health Promot*. 2020;9(January):1–6.
11. Abdiana A. Kualitas Hidup Penderita Penyakit Hipertensi Peserta Prolanis Di Puskesmas Kecamatan Padang Utara Kota Padang. *J Sehat Mandiri [Internet]*. 2019;14(2). Available from: <http://jurnal.poltekkespadang.ac.id/ojs/index.php/jsm/article/view/109>
12. Badan Pusat Statistik. Statistik Penduduk Lanjut Usia. Jakarta; 2020.
13. Hassanzadeh J, Mohammadbeigi A, Eshrati B, Rezaianzadeh A, Rajaeefard A. Determinants of inequity in health care services utilization in markazi province of iran. *Iran Red Crescent Med J*. 2013 May;15(5):363–70.

14. Khusnia L. Gambaran Karakteristik dan Kualitas Hidup pada Peserta Program Pengelolaan Penyakit Kronis (Prolanis) Penderita Hipertensi di Puskesmas Muara Satu Kota Lhokseumawe. Universitas Malikussaleh; 2022.
15. Badan Penyelenggara Jaminan Sosial Kesehatan. Panduan Praktis Prolanis (Program Pengelolaan Penyakit Kronis). Jakarta; 2014. p. 5p.
16. Qiu C, Shao D, Yao Y, Zhao Y, Zang X. Self-management and psychological resilience moderate the relationships between symptoms and health-related quality of life among patients with hypertension in China. Qual life Res an Int J Qual life Asp Treat care Rehabil. 2019 Sep;28(9):2585–95.
17. Tomaka J, Thompson S, Palacios R. The relation of social isolation, loneliness, and social support to disease outcomes among the elderly. J Aging Health. 2006 Jun;18(3):359–84.