QUALITY OF LIFE AND COMPLIANCE BASED ON HYPERTENSION PATIENT CHARACTERISTICS AT KROBOKAN PRIMARY HEALTH CENTER WEST SEMARANG DISTRICT

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INTISARI

Hipertensi merupakan penyakit kronis yang menjadi masalah kesehatan di Indonesia. Menurut Riset Kesehatan Dasar 2018 populasi hipertensi di Indonesia berada pada sekitar 34,1 % pada usia ≥18 tahun. Setiap tahunnya penderita hipertensi semakin meningkat sekitar 29% orang dewasa menderita hipertensi diseluruh dunia. Penderita hipertensi membutuhkan terapi yang lama bahkan seumur hidup yang tentunya membuat pasien terus – menerus mengkonsumsi obat antihipertensi yang akhirnya dapat berpengaruh terhadap kepatuhan pasien dan kualitas hidup. Penelitian ini bertujuan untuk mengetahui gambaran kualitas hidup dan kepatuhan berdasarkan karakteristik pasien hipertensi di Puskesmas Krobokan Semarang Barat. Penelitian ini menggunakan rancangan kuantitatif dengan jenis penelitian observasional dan pengambilan data secara *cross sectional* yang dilakukan pada periode bulan Maret –Mei tahun 2023. Instrumen yang digunakan yaitu MMAS-8 dan HRQOL SF-36 dengan jumlah 53 responden yang memenuhi kriteria inklusi. Hasil penelitian didapaptkan karakteristik responden tertinggi adalah Wanita 36 (68%), usia 56 – 65 tahun 26 (49%), SMA 18 (34%), ibu rumah tangga 31 (58%), lama menderita hipertensi ≥ 2 tahun 27 (51%), 1 jenis obat yang dikonsumsi 50 (94%), menderita penyakit lain 23 (43%) dan kepatuhan sedang 36 (68%). Kualitas hidup pada domain energi, peran emosi, peran fisik, fungsi fisik dan kesehatan umum memiliki kualitas hidup yang rendah paling banyak pada pasien dengan kepatuhan sedang

Kata kunci: Hipertensi, Karakteristik, Kepatuhan, Kualitas Hidup

ABSTRACT

Hypertension is the chronic diseases that is a health problem in Indonesia. According to the Basic Health Research 2018 the hypertension population in Indonesia is around 34.1% at the age of ≥18 years. Every year hypertension sufferers are increasing, around 29% of adults suffer from hypertension worldwide. Patients with hypertension require long therapy even for life which certainly makes patients continuously consume antihypertensive drugs which can ultimately affect patient compliance and quality of life. The purpose of the study was to determine description of quality of life and adherence based on hypertention patient at Krobokan Primary Health Center, West Semarang district. This study used a quantitative design with observational research and a cross-sectional approach conducted in the period March-May 2023. The instruments used were MMAS-8 and HRQOL SF-36 as many as 53 samples who met the inclusion criteria. The results showed that the highest respondent characteristics were female 36 (68%), age 56 - 65 years 26 (49%), high school 18 (34%), housewives 31 (58%), length of hypertension ≥ 2 years 27 (51%), one of hypertention drug taken 50 (94%), suffering from other illnesses 23 (43%) and moderate adherence 36 (68%). In the domains of energy, emotional role, physical role, physical function and

general health had a low quality of life in most patients with moderate adherence

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BACKGROUND

Hypertension is a condition where increased blood pressure both systolic and diastolic $\geq$ 140/90 mmHg (Paul AJ et.al. 2014). According to the World Health Organization in 2015, about 1.13 billion people in the world suffer from hypertension. In Southeast Asia, hypertension is one of the risk factors that cause 1.5 million deaths per year (Woodham N et.al. 2018). In the National Health Report RISKESDAS, the hypertension population in Indonesia was around 34.1% at the age of $\geq$18 years (Ministry of Health Republic Indonesia., 2018;Williams B et.al. 2019). Hypertension is still the biggest problem for health, especially for people with hypertension. Most hypertensive patients consider the disease a mild disease that is often experienced, because most hypertensive diseases occur without any definite signs and symptoms such as headaches, weakness, fatigue, dizziness, anxiety and muscle weakness so that hypertensive patients consider the disease that often occurs is common. Every year hypertension sufferers are increasing about 29% of adults suffer from hypertension worldwide (Dewi F and Mulyani E, 2022). This is because most people with hypertension do not know the impact and prevention that must be done by people with hypertension.

Quality of life is an individual's perception of their position in life within the context of the culture and value system in which they live and in relation to goals, expectations, standards and problems. An individual's quality of life is associated with a description of an individual's maximum physical health, psychological state, level of independence, social relationships and trust. (World Health Organization, 2012).

A person's health status or quality of life is assessed by several aspects, namely: 1. Subjective quality of life is how good a person's life feels; 2. Existential quality of life assesses how good one's life is on a deeper or specific level; 3. Objective quality of life is assessed by how one's life is perceived by the outside world such as the environment (Teoli D and Bhardwaj A., 2023).
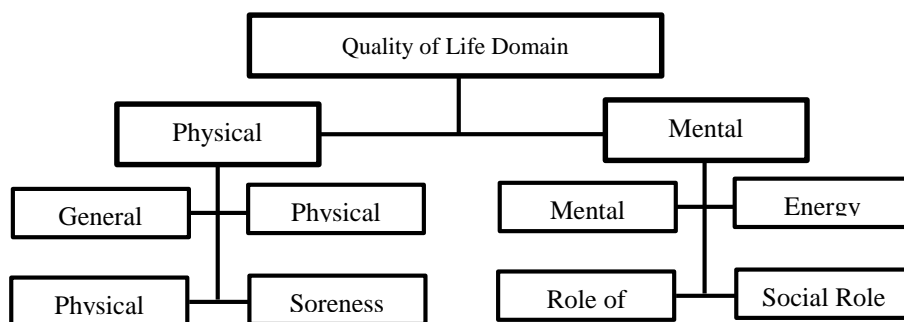

Figure 1. Quality of Life Domain

Short Form 36 (SF-36) is one of the generic instruments used to measure a person's quality of life. The SF-36 consists of 8 domains that describe a person's quality of life from physical health and mental health. (Brazier JE et.al. 1992).

Several factors affect a person's quality of life such as: gender, age, education, employment, marital status, self-efficacy, depression as well as social support and motivation. (Okello S et.al. 2016). Based on the description above, it is necessary to conduct research on analyzing the relationship between characteristics and quality of life of hypertensive patients**.**

METHOD

Study Design

This study used a quantitative design with observational research type and cross sectional approach conducted in the period of March-May 2023 at Krobokan Primary Health Center, West Semarang district. This research has been approved by the Ethics Committee of STIKES Telogorejo Semarang with No. 055/IV/KE/STIKES/2023, to conduct clinical research related to patients at Krobokan Primary Health Center, West Semarang district. The research was conducted in accordance with the Code of Ethics Guidelines, The inclusion criteria was respondents are members of prolanis who suffer hypertention and are over 18 years old, all respondents received hypertention theraphy and suffering from hypertention at least two mounths .
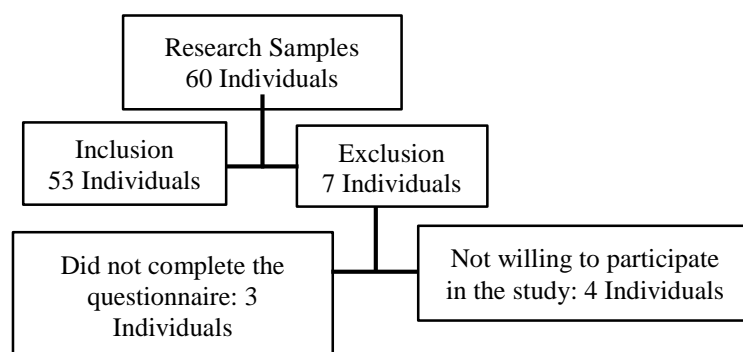

Figure 2. Sample of Research

Variable and Instrument

The research instrument used a questionnaire *Morisky Medication Adherence Scale – 8* (MMAS-8) from Krousel-Wood M (2009) and *Short Form – 36* (SF-36) from Nasar AS et.al (2020) then translated it with Bahasa which has been tested for validity and reliability. The sample used was 53 respondents who met the inclusion criteria and continued to process data analysis using SPSS *Version* 16 for univariat data.

RESULT AND DISCUSSION

In this study, demographic data of respondents with hypertension were obtained in the form of age, gender, education level, occupation, duration of hypertension, number of hypertension drugs consumed and other diseases suffered. Based on **Table I**, there were 53 patients with hypertension at Krobokan Health Center, West Semarang, consisting of 17 male patients (32%) and 36 female patients (68%).

Non-compliance in the use of antihypertensive drugs can have an impact on the patient's health. (Gardezi KM et.al. 2023). Several factors influence adherence such as: age, education, occupation, accommodation, family support and improving health worker interactions with patients (Pristianty L et.al. 2023). Education about information on the use of hypertension drugs by health workers has a positive impact on patients to undergo regular treatment so that the level of compliance will increase (Oktanti D et.al. 2019). In addition to education from health workers, family support is a supporting factor for adherence to drug use for hypertensive patients. Patients who get support from family or people closest to them will have an impact on hypertension patients to comply with their treatment (Pristianty L et.al. 2023).
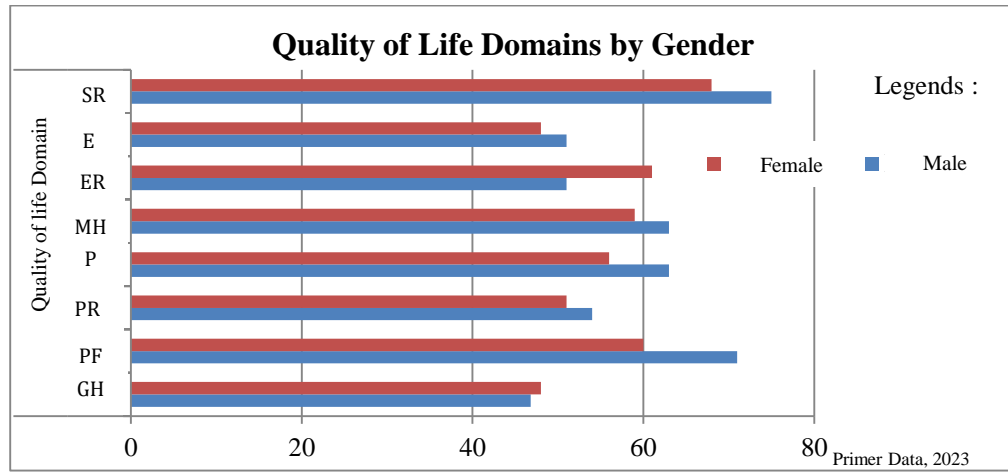
Table II below shows that patients suffering from complications of 1 type of disease are mostly diabetes mellitus around 12 patients (40%) and dyspepsia 4 patients (13%), while complications of more than 1 type of disease such as gout and hipercholesterolemia are 2 patients (7%) as well as diabetes mellitus and hipercholesterolemia 2 patients (7%). Some hypertensive patients at the Krobokan Primary Health Center in West Semarang district did not only suffer from 1 type of comorbidity, but 2 comorbidities or 3 comorbidities.

Tabel I. Hypertension Patient Frequency Distribution

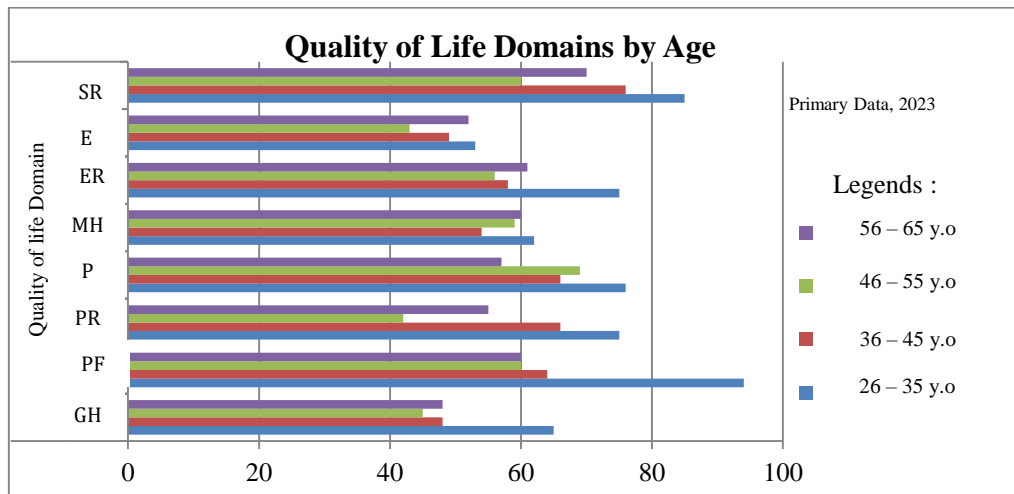| Characteristic	Frequency (N= 53)	Percentage (%)
Gender		
Male	17	32
Female	36	68
Age		
26-35 years old	3	6
36-45 years old	12	23%
46-55 years old	12	23%
56-65 years old	26	49%
Education		
No education	5	9
Elementary	16	30
Junior high	8	15
Senior high	18	34
Diploma	2	4
Bachelor	4	8
Occupation		
Housewives	31	58
Entrepreneur	14	26
Private employee	6	11
Civil servants	2	4
Length of Hypertension	$2,40 \pm 0,689$	
$\leq$ 1 Year	6	11
1 - 2 Years	20	38
$\geq$ 2 Years	27	51
Number of hypertension drugs taken		
1 Drug	50	94
2 -3 Drugs	3	6
Suffering from other illnesses		
Yes	30	57
No	23	43
Adherance		
Moderate	36	68
High	17	32

Tabel II. Hypertension Patient Frequency Distribution

Characteristic	Frequency N= 53	Percentage (%)
Kinds of Illnesses		
Complications 1 Kind of Illness		
Dyspepsia	4	13%
Gout	2	7%
Diabetic Mellitus	12	40%
Hipercholesterolemia	3	10%
Stroke	1	3%
Complications More Than 1 Kind of Illness		
Gout & hipercholesterolemia	2	7%
Diabetes Mellitus & Gout	1	3%
Diabetes Mellitus & hipercholesterolemia	2	7%
hipercholesterolemia & Dyspepsia	1	3%
hipercholesterolemia & hipertriglycerides	1	3%
hipertriglycerides, Gout and hipercholesterol	1	3%

Quality of Life Domains by Gender

(Chart: horizontal bar chart comparing Female and Male across domains GH, PF, PR, P, MH, ER, E, SR; x-axis 0 to 80)

Note: SR = Sosial Role; E = Energy; ER = Energy Role; MH; Mental Health; P = Pain; PR = Physical Role; PF = Physical Function; GH; General Health

Figure 3. Overview of Quality of Life Domain of Hypertension Patients Based on Gender Characteristics

Quality of Life Domains by Age

(Chart: horizontal bar chart comparing age groups 56–65 y.o, 46–55 y.o, 36–45 y.o, 26–35 y.o across domains GH, PF, PR, P, MH, ER, E, SR; x-axis 0 to 100)

Note: SR = Sosial Role; E = Energy; ER = Energy Role; MH; Mental Health; P = Pain; PR = Physical Role; PF = Physical Function; GH; General Health

Figure 4. Overview of Quality of Life Domain of Hypertension Patients Based on Age Characteristics

Figure 3 showed that men had a better quality of life than women in the domains of physical function, physical role, pain, mental health, energy and social role. In the domains of general health and emotional role, women have a better quality of life than men. In another case, **Figure 4** showed that the age range of 26-35 years had a better quality of life in all quality of life domains than the other age ranges of 36 - 45 years, 46 - 55 years and 56 - 65 years. As age increases, it is associated with the aging process which results in physical and physiological changes in a person which also affects the decline in quality of life (Fransisca M et.al. 2017). Older hypertensive patients will experience a decrease in quality of life in the domains of physical function, physical role, pain and energy.
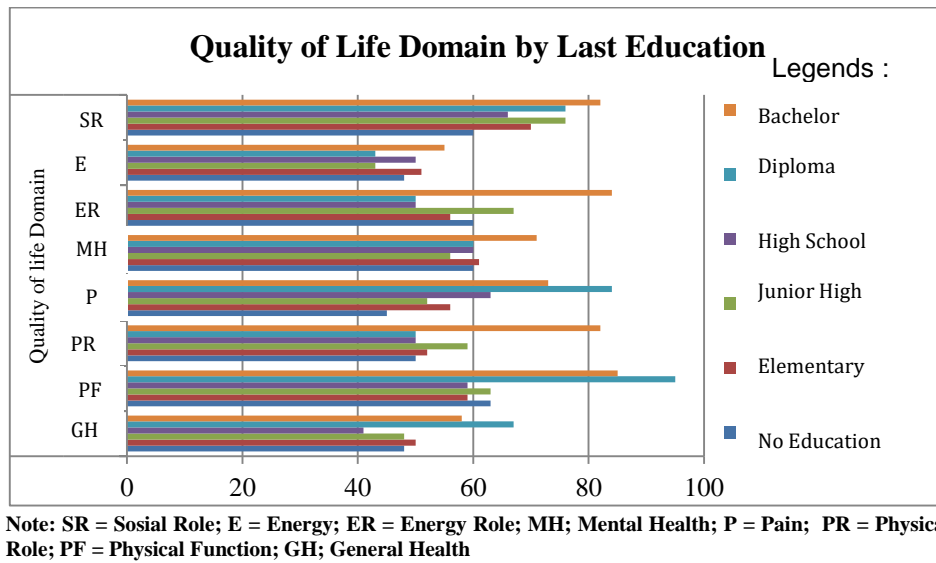
Quality of Life Domain by Last Education

Note: SR = Sosial Role; E = Energy; ER = Energy Role; MH; Mental Health; P = Pain; PR = Physical Role; PF = Physical Function; GH; General Health

Figure 5. Overview of Quality of Life Domain of Hypertension Patients Based on Age Characteristics

Quality Of Life With Work Domain

Note: SR = Sosial Role; E = Energy; ER = Energy Role; MH; Mental Health; P = Pain; PR = Physical Role; PF = Physical Function; GH; General Health
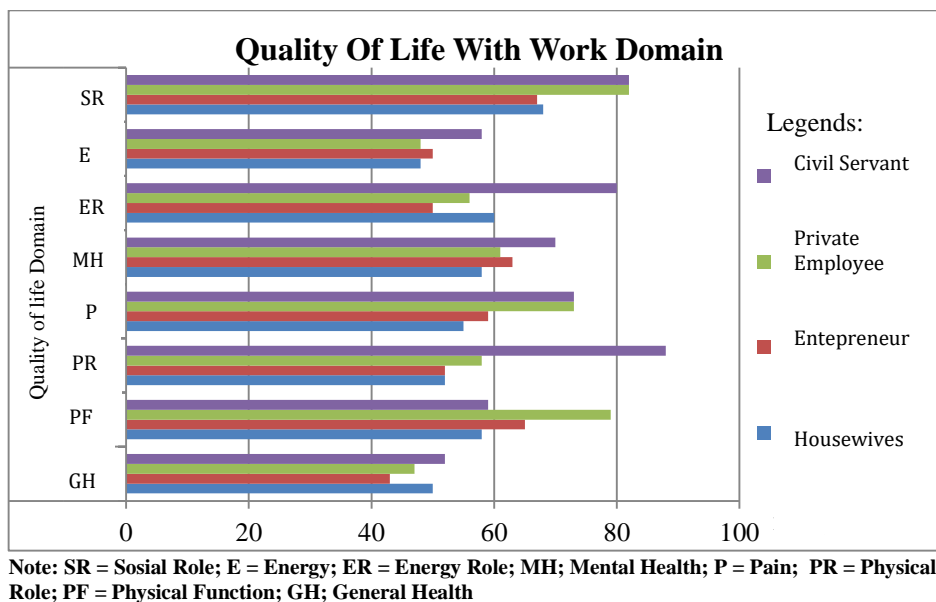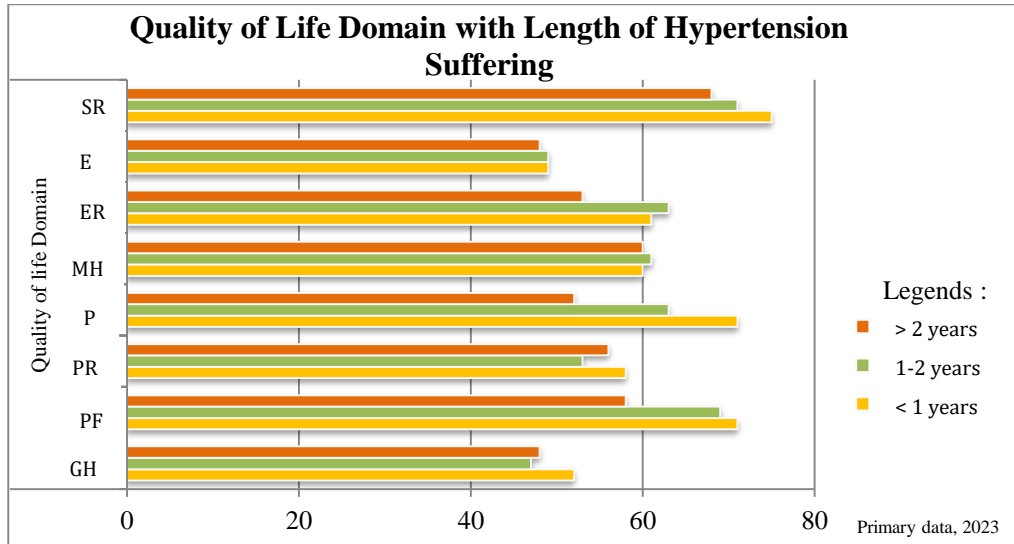
Figure 6. Overview of Quality of Life Domain of Hypertension Patients Based on Last Education Characteristics

The quality of life domains with the characteristics of the last education in **Figure 5** above show that graduates and diplomas on average have a good quality of life in each domain compared to high school, junior high school, elementary school and no education. In another case, **Figure 6** civil servant/police and military (TNI/POLRI) have the highest quality of life in the domain of physical role, mental health and emotional role. Private employment status in the domain of physical function has a better quality of life than Civil Servant/TNI/POLRI, entrepreneur and housewives.

A person with a high level of education will be able to control their own condition, manage and motivate themselves well, as well as be able to receive and process information obtained properly. Hypertensive patients who have poor emotional intelligence will affect their health conditions (Garg

and Agarwal, 2019). Yulitasari BI et.al (2021) also stated that education affects a person's response in seeking information about treatment and care for their health.

Private employment status in the physical function domain has a better quality of life than civil servant/TNI/POLRI, entrepreneurs and housewives. Research by Huang W et.al (2017), stated that physical activity makes a person's quality of life index increase compared to someone who is not physically active.

Note: SR = Sosial Role; E = Energy; ER = Energy Role; MH; Mental Health; P = Pain; PR = Physical Role; PF = Physical Function; GH; General Health

Figure 7. Overview of Quality of Life Domain of Hypertension Patients Based on Characteristics of Length of Hypertension Suffering
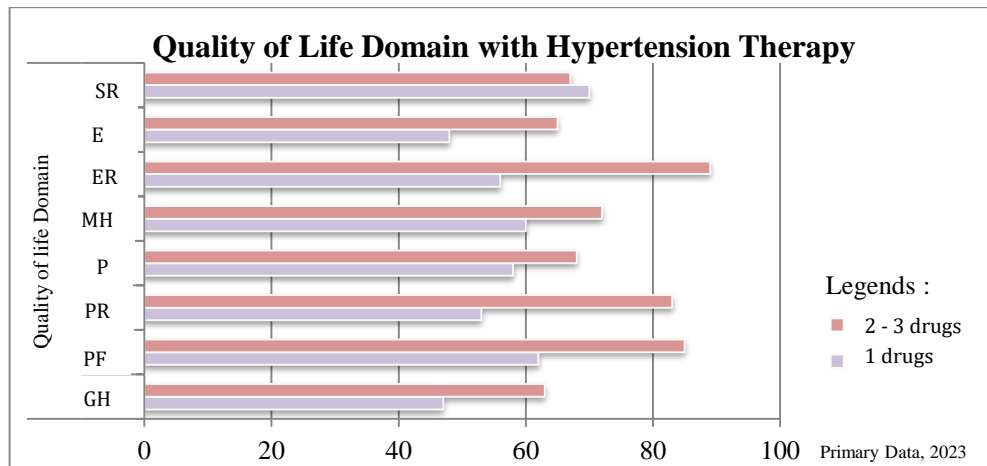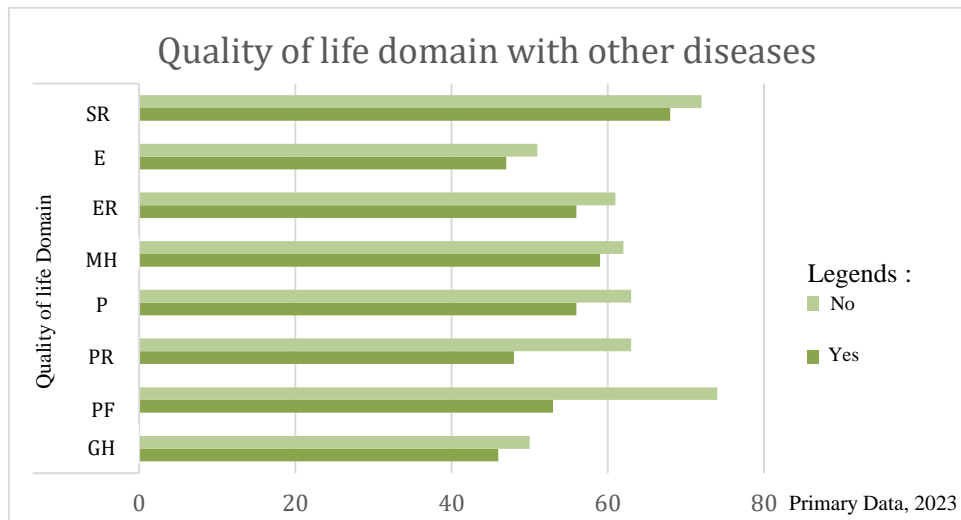

Note: SR = Sosial Role; E = Energy; ER = Energy Role; MH; Mental Health; P = Pain; PR = Physical Role; PF = Physical Function; GH; General Health

Figure 8. Overview of Quality of Life Domain of Hypertension Patients Based on Hypertension Therapy Characteristics

Figure 7 above show that the longer a person suffers from hypertension, the lower their the quality of life especially in the domain of energy, energy role, pain, physical role, and general role. This research is in line with the research of Kaliyaperumal S et.al (2015) which said that long suffering from hypertension will make patients experience a decrease in the quality of life in physical

and psychological health, thus requiring lifelong care. In addition, long suffering from hypertension will also affect the quality of life of hypertensive patients in social roles. Increased blood pressure causes a decrease in vascularization in the brain, making patients unfocused, more irritable, and limiting themselves to socialize with others because of the discomfort they experience (Di Chiara T et.al. 2022). Figure 8 showed that the quality of life of hypertensive patients who used 2 - 3 types of drugs had a better quality of life than patients who used only 1 type of antihypertensive drug in the domains of general health, physical function, physical role, pain, mental health, emotional role and energy.

Note: SR = Sosial Role; E = Energy; ER = Energy Role; MH; Mental Health; P = Pain; PR = Physical Role; PF = Physical Function; GH; General Health

Figure 9. Overview of Quality of Life Domain of Hypertension Patients Based on Characteristics of Suffering from Other Diseases

Figure 9 showed that hypertensive patients who did not suffer from other diseases had a better quality of life in all quality of life domains such as: general health, physical function, physical role, pain, mental health, emotional role, energy and social role compared to patients who suffered from other diseases.
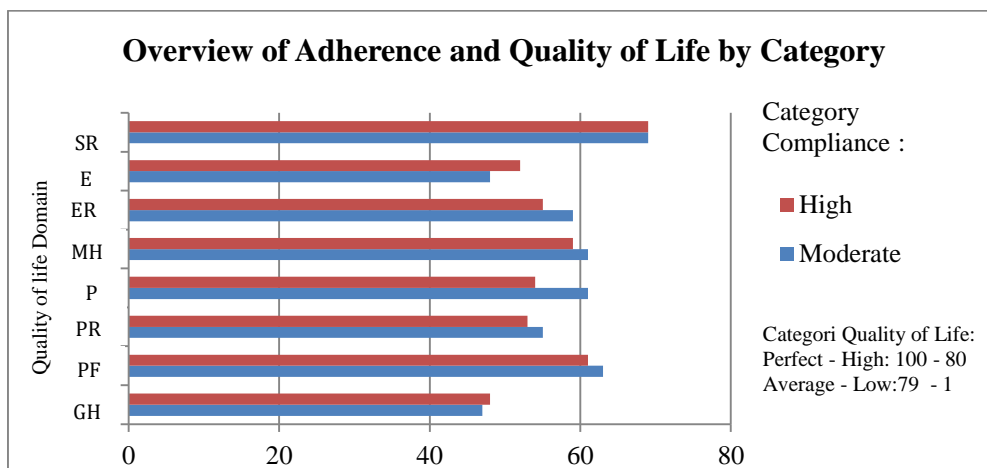
Note: SR = Sosial Role; E = Energy; ER = Energy Role; MH; Mental Health; P = Pain; PR = Physical Role; PF = Physical Function; GH; General Health

Figure 10. Overview of Quality of Life Domain of Hypertension Patients Based on Characteristics of Adherance

Hypertensive patients who do not suffer from other diseases have a better quality of life in all quality of life domains such as: general health, physical function, physical role, pain, mental health, emotional role, energy and social role compared to patients who suffer from other diseases. Comorbidities suffered by hypertensive patients adversely affect the quality of life of patients (Pristianty L et.al. 2023; Al Farizi GR et.al. 2021). In addition, according to the researcher, other diseases that are suffered make hypertensive patients experience psychological problems such as emotional and limitations in some physical activities (Basu S et.al. 2019; Tilea I et.al. 2018; Puspitasari 2022).

CONCLUSIONS

In gender characteristics, men have a good average quality of life compared to women in each domain. As age increases, the quality of life of hypertensive patients will decrease. Hypertensive patients who have the latest education at college have a better quality of life when compared to hypertensive patients who get education only up to formal education. Civil servant/TNI/POLRI have a better quality of life compared to other job characteristics. The longer hypertensive patients suffer from hypertension, the more the quality of life of hypertensive patients will decrease. The amount of hypertension therapy obtained by hypertensive patients affects the quality of life of hypertensive patients. Other diseases suffered by hypertensive patients affect the quality of life of hypertensive patients. Future research is expected to examine adherence and quality of life with other instruments.

ACKNOWLADGEMENT

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