

The overview of the knowledge level of hypertension prevention and quality of life in Wirobrajan, Yogyakarta

By Anggara Ersu Putra

The overview of the knowledge level of hypertension prevention and quality of life in Wirobrajan, Yogyakarta

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ABSTRACT

Hypertension is a non-communicable disease that is a global problem whose prevalence increases with age. Knowledge is important for a person to evaluate himself. Both hypertension and knowledge can affect a person's quality of life. The purpose of this study was to provide an overview of the level of knowledge about hypertension and the quality of life of the older adults in RW 08 and RW 09 Wirobrajan. The research method used is descriptive-analytic research with inclusion criteria for elderly aged ≥ 60 years. The knowledge test about hypertension and quality of life uses a questionnaire and the EQ-5D3L. The results were 69 older women 67%, education level ≤ 9 years 52%, and history of hypertension 74%. Older adults have a high level of knowledge, with the highest to lowest dimensions being lifestyle (86%), treatment (75%), definition (68%), complications (56%) and adherence to therapy (43%). The EQ5D-3L measurement report showed that the domain scores of no problems with self-care, anxiety/depression, mobility, usual activities, and pain/discomfort were (84.1; 79.7; 73.9; 73.9, and 69.7) %. It was concluded that most of the knowledge and quality of life of the elderly in the Wirobrajan area were in the high category, with the highest domain being self-care and the lowest being pain/discomfort. Further research is needed regarding the relationship between the level of knowledge and the quality of life of older adults.

Keywords: elderly, hypertension, knowledge, quality of life

INTRODUCTION

High blood pressure, often known as hypertension, is a risk factor for cerebrovascular illness and cognitive loss in old age (Moonen et al., 2015). According to the 2018 Riskesdas study, the prevalence of hypertension in the age group 55 years and above is 65.66%, and Wirobrajan is one of the locations where the population aged 65 years and over exceeds 9.5% (Kuswanto, 2021) who have the potential to experience hypertension.

Assessing the quality of life of older persons is a significant topic, especially for those suffering from chronic and difficult-to-treat disorders like hypertension. Hypertension has been proven in several studies to decrease energy, social functioning, mental health, mood, and psychological functioning (Kaliyaperumal et al., 2016). The World Health Organization defines QoL as an individual's perception of their place in life in relation to their goals, expectations, standards, and concerns in the context of the culture and value systems in which they live. This concept reflects the fact that subjective judgements of quality of life are entrenched in cultural, social, and environmental factors. (WHO, 1995).

One instrument for evaluating and analyzing health-related quality of life is the EQ-5D-3L Questionnaire. The EQ-5D scale is a general health-related quality of life (HrQoL) measure that may be used in clinical and economic research. (Bhadhuri et al., 2020). The EQ-5D-3L has five dimensions with three severity levels (none, severe, and high). defined 243 distinct health problems using this questionnaire (Van Hout & Shaw, 2021). The goal of this research is to describe older people's knowledge and quality of life in the areas of mobility, self-care, regular activities, pain/discomfort, and anxiety/depression. Based on this backdrop, selecting the optimal approach for enhancing the quality of life of older people requires an assessment of their level of knowledge and quality of life.

RESEARCH METHOD

Materials

A knowledge questionnaire and the European Five-Dimensional Quality of Life Three-Level Scale (EQ-5D-3L) were employed as research instruments.

Methods

The method used is an analytic observation study conducted in RW 08 and RW 09 Wirobrajan. The number of respondents involved in the study was 69, obtained by purposive sampling. The inclusion criteria include elderly aged 60 years and over, have a history of hypertension or not, and are willing to fill out a complete questionnaire. This research has received a certificate of passing the ethical test from the Ahmad Dahlan University Research Ethics Committee with No. 012207084.

Data collection was carried out in August 2022. The data collected included patient demographic characteristics, including gender, education, and history of hypertension. Assessment of the knowledge questionnaire is based on answer choices such as "true," "wrong," and "don't know" of the 20 questions asked to respondents. Assessment is carried out based on the number of items answered correctly by the respondent. Correct answers are given a score of 3, while wrong answers are given a value of 2, or do not know is given a value of 1. The level of knowledge is said to be "high" if it is in the 51-60 range and "moderate" if it is in the 0-50 range.

The assessment of the EQ-5D-3L questionnaire is divided into two parts. The first part is based on the 5 domains and the level of each dimension. The value of each level is then converted based on the specified value and then combined to determine the value of each respondent. The value of each level is then converted based on the specified value and then combined to determine the usage value of each respondent. The value of utility is in the range 1 to 2. A value of zero "1" indicates a moderate condition, while a value of one "2" indicates a high health status.

The Visual Analog Scale (VAS) score, a 10 cm (or 100 mm) straight-line scale with spoken information at each end, is the second section of the EQ-5D-3L questionnaire. When filling out the questionnaire, the scale runs from 0 to 100, with 0 representing the poorest health status and 100 representing the best health status.

Data Analysis

Descriptive analysis provides the respondents' characteristics, such as social demographics, descriptive statistics for the five dimensions, three levels, the EQ-VAS, and the EQ-5D-5L indices. There were percentages of responses for the five aspects and five levels among these: Means were reported for the EQ-VAS and EQ-5D-5L indices.

RESULT AND DISCUSSION

Most of the elderly in this study had the following characteristics: female sex (67%), educational level less than or equal to 9 years (52%), and a history of hypertension (74%) (Figure 1).

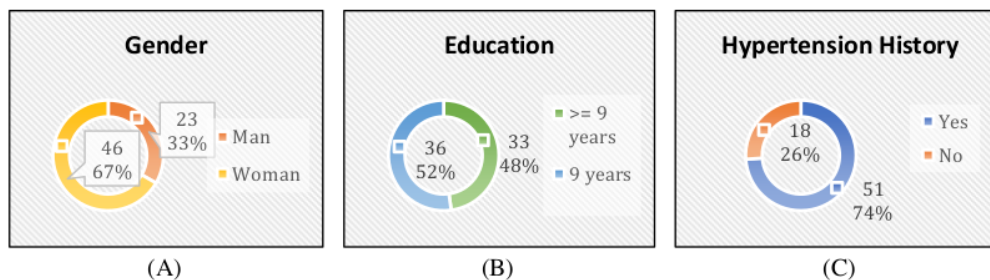


Figure 1. Characteristics of the elderly in RW 08 and RW 09 Wirobrajan (N=69) regarding (A) gender, (B) education, and (C) hypertension history.

1. Knowledge of Hypertension

Table 1. Level of Quality of Life for the Elderly by Domain in the EQ5D-3L Questionnaire

Domain	Answer		
	Right (%)	Wrong (%)	Don't Know (%)
Definition	68	10	22
Complication	56	29	15
Treatment	75	7	19
Therapy Adherence	43	42	15
Lifestyle	86	4	10

Table 1. shows an overview of the level of public knowledge in RW 08 and Wirobrajan 09 about hypertension. The level of community knowledge is their understanding (Ramiah Santha Kumar & Kaliyaperumal, 2014). Questionnaires given to the older adults have various answers indicating that each older person has a different level of knowledge. Differences in knowledge can be caused by differences in the characteristics of these respondents, such as filling in knowledge related to the definition of disease, how complications occur, methods of treatment, adherence to therapy, and lifestyles that follow what the respondents experienced.

Lifestyle is a way of life that is influenced by factors such as geography, economics, politics, culture, and religion. People's "lifestyle" refers to their daily behavior and functioning in work, activities, leisure time, and diet (Dariush D. Farhud, 2015). The highest correct answers were found in the lifestyle domain (86%), followed by treatment (75%), definition (68%), complications (56%) and medication adherence (43%).

The results of this study indicate that the percentage of medication adherence is still below 50%. Intervention is needed to increase knowledge and awareness of the importance of medication adherence. Compliance with antihypertensive pharmacological treatment impacts community prevention of complications of hypertension, which guarantees an increase in life expectancy and general welfare. Adherence to pharmacological treatment also positively impacts patient's mental and physical domains, as does the overall quality of life score (Souza et al., 2016). This is also following previous studies, which show that knowledge about hypertension is well-related to medication adherence and HRQoL. A good relationship also exists between medication adherence and HRQoL (Amer et al., 2021).

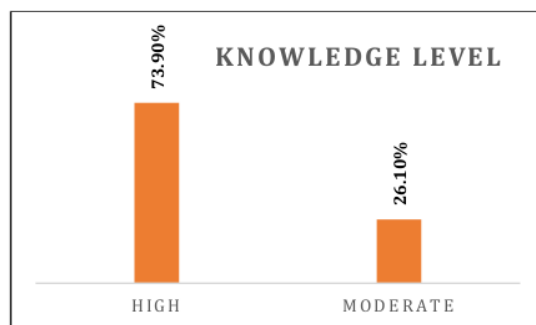


Figure 2. An overview of the level of knowledge of older adults in RW 08 and RW 09 Wirobrajan.

Based on the questionnaire results, it is known that the frequency of moderate and high knowledge about hypertension in the subject is 73.9% and 26.1%, respectively (Figure 2). Knowledge about hypertension has a significant relationship with HRQoL (Alshammari et al., 2021). The measurement results for each domain show that most elderly have high knowledge, above 50% related to hypertension.

2. **Quality of Life for the Elderly** in RW 08 and RW 09, Wirobrajan

Table 2. Quality of Life of Elderly Based on Domain in the EQ5D-3L Questionnaire.

EQ-5D-3L	No Problems	Problems
Mobility	51 (73.9)	18 (26.1)
Self-care	58 (84.1)	11 (15.9)
Usual activities	51 (73.9)	18 (26.1)
Pain/discomfort	48 (69.6)	21 (30.4)
Anxiety/depression	55 (79.7)	14 (20.3)

The EQ-5D assesses five health dimensions: mobility, self-care, usual activities, pain/discomfort, and anxiety/depression. Each measure has three alternative responses, which are commonly characterized as no problem, moderate difficulty, or substantial problem on that scale (Marques da Silva et al., 2015). In this study, the 3 answers were summarized into 2, "problems and no problems."

According to the results of the EQ-5D-3L questionnaire, the dimension with the highest proportion of aged claiming "no problem" is "self-care" (84.1%), followed by "anxiety/depression" (79.7%). In terms of "usual activities" and "mobility," the proportion of respondents who answered "no problem" was the same, 73.9%. Table 2 reveals that the "Pain/Discomfort" category had the lowest proportion of "no problem" replies (69.6%).

Table 3. Quality of Life of Elderly Based on Domain in the EQ5D-3L Questionnaire.

Description	Mean Score
EQ-5D-3L	61.01
EQ-VAS	78.84

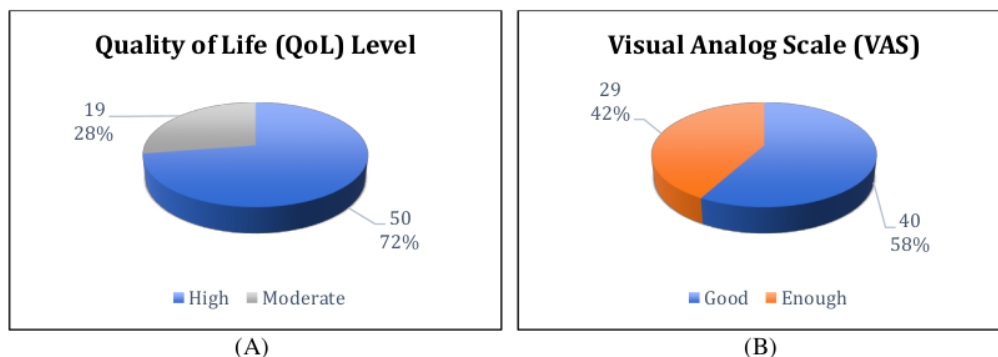


Figure 3. Diagram of (A) Overview of QoL Level; (B) Overview of QoL Using Visual Analog Scale (VAS).

The senior participants' mean EQ-5D-3L and EQ-VAS indices were 61.01% and 78.84, respectively (Table 3). The high QoL group had greater total QoL than the moderate QoL group (72% vs. 28%). Vas EQ was slightly higher in the good group than in the medium group (58% vs. 42%). (See Figure 28)

The EQ-5D and EQ-VAS self-classifiers are EQ-5D components that describe a person's health in terms of the severity of each of the five dimensions. The EQ-VAS, on the other hand, provides a comprehensive assessment of their health. Patients are asked to score their health on the day they complete the EQ-VAS questionnaire, the results obtained are not always related to the condition and may be influenced by factors other than health (Feng et al., 2014). According to one study, some respondents who said they had no problems with the EQ-5D dimensions would rate their health at an EQ-VAS rating of less than 100 (Whynes, 2008).

CONCLUSION

According to the findings of this survey, most of the elderly in the Wirobrajan area had a good level of knowledge and a high quality of life, with self-care being the greatest domain and pain/discomfort being the lowest. More research is needed to determine the relationship between the elderly's level of knowledge and their quality of life.

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