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#### **ORIGINAL**



# Health-related quality of life in hypertensive individuals attending a cardiology clinic in North Lima

Calidad de vida en relación con la salud en personas hipertensas que acuden a un consultorio de cardiología en Lima Norte

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#### **ABSTRACT**

Quality of life has a significant influence on a person's well-being, although when illness strikes, this well-being tends to decline, changing the person's lifestyle. Therefore, the objective of this study is to determine the quality of life in relation to health in hypertensive patients who visit a cardiology clinic in northern Lima. This is a quantitative, descriptive, cross-sectional study with a total population of 124 hypertensive individuals. The results show that 13,7 % (n=17) have a very low quality of life in relation to their health, 26,6 % (n=33) have a low quality of life, 9,7 % (n=12) have an average quality of life, 43,5 % (n=54) have a high quality of life, and 6,5 % (n=8) have a very high quality of life. In conclusion, health assessments should be carried out on the population to detect risk factors and hypertension at an early stage.

Keywords: Quality of Life; Hypertension; Cardiovascular Risk.

### **RESUMEN**

La calida de vida influye considerablemente en el bienestar de la persona, aunque cuando se presenta una enfermedad, este bienestar tiende a disminuir y que ello modifica el estilo de vida de la persona, por ello, el objetivo del estudio es determinar la calidad de vida en relación con la salud en personas hipertensas que acuden a un consultorio de cardiología en Lima Norte. Es un estudio cuantitatitov, descriptivo-transversal, con una población total de 124 personas hipertensas. En sus resultados, podemos observar que, el 13,7 % (n=17) tienen una calidad de vida muy baja en relación con su salud, 26,6 % (n=33) calidad de vida baja, 9,7 % (n=12) calidad de vida promedio, 43,5 % (n=54) calidad de vida alta y 6,5 % (n=8) calidad e vida muy alta. En conclusión, se debe realizar evaluaciones en la salud de la población, para la detección de factores de riesgo y de hipertension en etapa temprana.

Palabras clave: Calidad de Vida; Hipertensión; Riesgo Cardiovascular.

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#### INTRODUCTION

The World Health Organization (WHO) reported that more than 15 million individuals die each year from NCDs (mainly between the ages of 30 and 69), with the majority of these deaths being premature and preventable. This phenomenon occurs primarily in countries with low to medium economies. Poor diet, harmful substance intake, and a sedentary lifestyle predispose people to more NCDs.<sup>(1)</sup>

Hypertension (HTN) is the key risk factor for cardiovascular disability and death, affecting a large number of individuals worldwide. This is particularly true in low- and middle-income countries such as China, Brazil, India, and Mexico, where the economic burden of CVD and HTN together accounts for 50 % of the total estimated economic burden identified. (2)

In Latin American countries, the prevalence of high blood pressure is high, with the countries with the highest prevalence being Brazil with 25-35 %, Paraguay with 34 %, Chile with 33,7 %, Uruguay and Venezuela with 33 %; likewise, in Colombia, the prevalence is 25 %.<sup>(3)</sup> It is estimated that by 2025, the figure could rise to 60 %, reaching 1 560 000 000 individuals globally.<sup>(4)</sup>

Health-related quality of life (HRQOL) is a concept commonly used in the subjective assessment of a patient's health that reflects the patient's physical, psychological, social, and emotional well-being, as it is closely related to quality of life (QOL) and can have an impact on their health status. (5,6)

However, HTN negatively affects patients' QOL, especially in older people, who have greater healthcare needs and are more likely to have poorer HRQoL than healthy people. (7,8)

For hypertensive patients, risk factors originate in two ways: non-modifiable factors, which are age, sex, and genetics, which are aspects that are already established in humans; and modifiable factors related to lifestyle habits and behaviors, which are diet, consumption of harmful substances, and a sedentary lifestyle. (9,10)

Therefore, improving lifestyle, adopting healthy habits, adhering to treatment, and maintaining positive mental health will enable people with hypertension to avoid or reduce risk factors that can affect their well-being and health.<sup>(11,12)</sup>

In a study conducted in Poland with participants aged 30 to 89, the results showed that the quality of life of the majority of participants, who were male, was average to good. The study concluded that healthy behaviors, following treatment correctly, and regularly checking blood pressure helped maintain a healthy quality of life. (13)

In a study conducted in Pakistan with 384 hypertensive participants, the results showed that the majority of participants were male, 56 % of whom had a poor health-related quality of life between the ages of 41 and 50, concluding that by not practicing healthy habits to manage their disease, they tended to have an inadequate quality of life.<sup>(14)</sup>

In a study conducted in Angola with 113 participants, the results showed that, about hypertensive participants, 64,6% of them had a regular quality of life and 35,4% had a poor quality of life, concluding that conditions and difficulty in accessing health services aggravate the disease due to factors such as overcrowding, inadequate nutrition, and poor living conditions. (15)

Therefore, the research objective is to determine the quality of life in relation to health in hypertensive people who attend a cardiology clinic in northern Lima.

# **METHOD**

#### Research type and design

The study is quantitative and uses a descriptive, cross-sectional, non-experimental methodology. (16)

#### **Population**

The total population consisted of 192 people diagnosed with HTN who attend the cardiology service of a health facility.

### Inclusion Criteria

- People with HTN over the age of 18.
- People with HTN who are continuing to receive cardiology services.
- People with HTN who are from the jurisdiction of the healthcare facility.
- People who voluntarily participate in the study.

# Technique and Instrument

The technique used for the study is a survey, which was conducted using the Quality of Life Related to Health (SF-36) questionnaire or data collection instrument.

The SF-36 is an instrument consisting of 36 items distributed across nine dimensions (physical functioning, physical role, bodily pain, general health, energy/fatigue, social functioning, emotional function, emotional well-being, and health change). It is designed on a Likert scale, with scores ranging from 0 to 100 points, where the response options are varied, both polytomous and dichotomous, and the higher the score, the higher the quality of life about health will be for hypertensive individuals.<sup>(17,18)</sup>

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The sample adequacy measure to validate the instrument using the Kaiser-Mayer-Olkin test obtained a coefficient of 0.901 (KMO > 0.8), and the Bartlett's sphericity test obtained significant results (Approx. X2 = 6010.317; gl = 630; Sig.= 0.000).

Finally, Cronbach's alpha internal consistency coefficient was 0,827 ( $\alpha > 0.8$ ; N of elements = 36), thus determining that the instrument has a high degree of reliability.

# Place and Application of the Instrument

First, administrative procedures were coordinated to allow access to the health facility and to users for the study, as well as to provide information about the research so that they would be aware of what was going to be done.

#### **RESULTS**

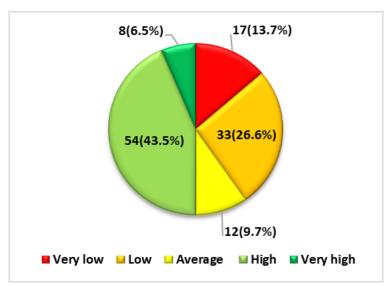
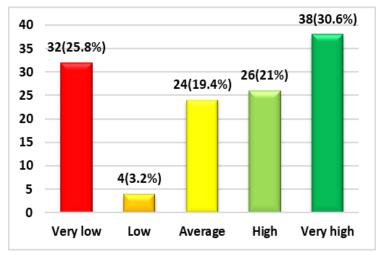


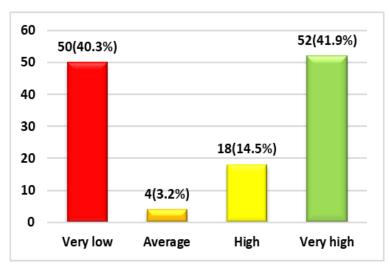
Figure 1. Quality of life in relation to health in hypertensive patients attending a cardiology clinic in northern Lima

Figure 1 shows that 13,7 % of participants have a very low quality of life in relation to their health, 26,6 % have a low quality of life, 9,7 % have an average quality of life, 43,5 % have a high quality of life.



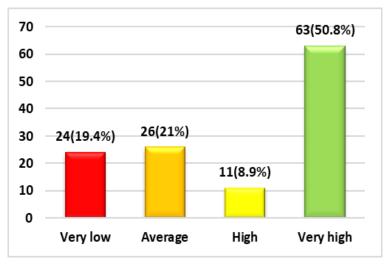
**Figure 2.** Quality of life in relation to health in terms of physical functioning in hypertensive patients attending a cardiology clinic in northern Lima

Figure 2 shows that, in terms of physical functioning, 25,8 % of participants have a very low quality of life in relation to their health, 3,2 % have a low quality of life, 19,4 % have an average quality of life, 21 % have a high quality of life, and 30,6 % have a very high quality of life.

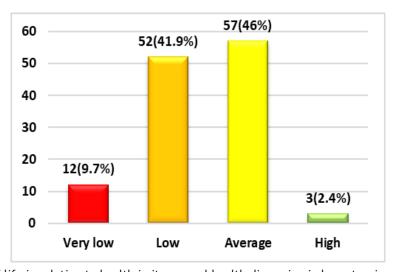


**Figure 3.** Quality of life in relation to health in the physical role dimension in hypertensive individuals who visit a cardiology clinic in northern Lima

In figure 3, with regard to the results of the physical role dimension, it can be seen that 40.3% of participants have a very low quality of life in relation to their health, 3.2% have an average quality of life, 14.5% have a high quality of life, and 41.9% have a very high quality of life.



**Figure 4.** Quality of life in relation to health in terms of bodily pain in hypertensive patients attending a cardiology clinic in northern Lima

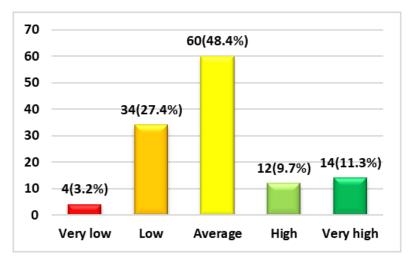


**Figure 5.** Quality of life in relation to health in its general health dimension in hypertensive patients attending a cardiology clinic in northern Lima

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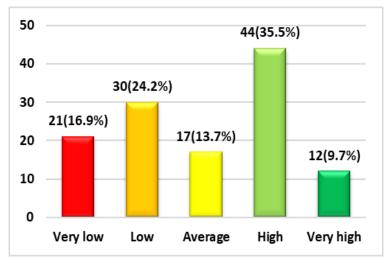
In figure 4, in the results for the bodily pain dimension, we can see that 19,4 % of participants have a very low quality of life in relation to their health, 21 % have an average quality of life, 8,9 % have a high quality of life, and 50,8 % have a very high quality of life.

In figure 5, with regard to the results of the general health dimension, we can see that 9.7% of participants have a very low quality of life in relation to their health, 41.9% have a low quality of life, 46% have an average quality of life, and 2.4% have a high quality of life.



**Figure 6.** Quality of life in relation to health in the energy/fatigue dimension in hypertensive patients attending a cardiology clinic in northern Lima

In figure 6, with regard to the results of the energy/fatigue dimension, we can see that 3,2 % of participants have a very low quality of life in relation to their health, 27,4 % have a low quality of life, 48,4 % have an average quality of life, 9,7 % have a high quality of life, and 11,3 % have a very high quality of life.

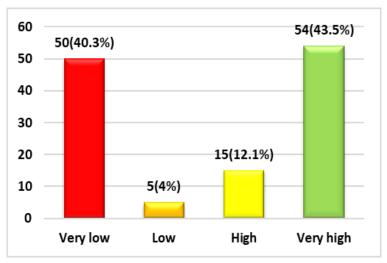


**Figure 7.** Quality of life in relation to health in its social function dimension in hypertensive patients attending a cardiology clinic in northern Lima

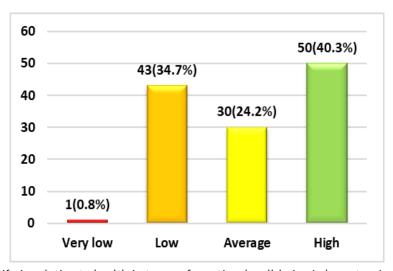
In figure 7, with regard to the results of the social function dimension, we can see that 16.9% of participants have a very low quality of life in relation to their health, 24.2% have a low quality of life, 13.7% have an average quality of life, 35.5% have a high quality of life, and 9.7% have a very high quality of life.

In figure 8, we can see that, with regard to the emotional function dimension, 40,3 % of participants have a very low quality of life in relation to their health, 4 % have a low quality of life, 12,1 % have a high quality of life, and 43,5 % have a very high quality of life.

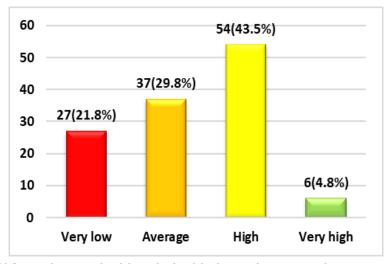
In figure 9, with regard to the results of the emotional well-being dimension, we can see that 0.8% of participants have a very low quality of life in relation to their health, 34.7% have a low quality of life, 24.2% have an average quality of life, and 40.3% have a high quality of life.



**Figure 8.** Quality of life in relation to health in the emotional function dimension in hypertensive patients who attend a cardiology clinic in northern Lima



**Figure 9.** Quality of life in relation to health in terms of emotional well-being in hypertensive patients attending a cardiology clinic in northern Lima



**Figure 10.** Quality of life in relation to health in the health change dimension in hypertensive patients attending a cardiology clinic in northern Lima

In figure 10, with regard to the results of the health change dimension, we can see that 21,8 % of participants have a very low quality of life in relation to their health, 29,8 % have an average quality of life, 43,5 % have a high quality of life, and 4,8 % have a very high quality of life.

# DISCUSSIONS

NCDs and HTN are health problems that are becoming increasingly common globally and in our country. New lifestyles, the advertising industry, and the limited impact of health education and promotion are shaping the health of individuals today.

In terms of CVRS, it presented a high level. This is because the health condition of hypertensive patients depends on health checks, systolic BP control, weight, and lifestyle practices such as exercise and diet, especially in older adults, who are more vulnerable to changes that can alter HTN in their bodies and cause cardiovascular risks that affect their quality of life. Therefore, health education has a significant positive impact on the knowledge, behaviors, and HRQoL of hypertensive individuals.

In terms of physical functioning and physical role, the results showed that they had a very low quality of life about health. This is because they are closely linked and may or may not be affected depending on the patient's health condition, which in turn depends on the controls the patient has in place and the risk factors present. The older the patient, the greater the likelihood of comorbidities. Likewise, if systolic BP levels are not controlled, adverse sequelae may appear that can severely affect the performance of household and work activities. Advanced age and specific comorbidities affect the locomotor system, which limits physical activity related to domestic and work activities.

As for the other dimensions, we observed that the results show average, high, and very high levels. This is because insufficient knowledge about hypertension and its care could lead to less optimal systolic BP control, which may be reflected in lower rates of adherence to prescribed antihypertensive medications and commitment to healthy lifestyle practices. The management of the condition determines the condition and perception that one will have of their health, which has been shown to promote proper BP control and prevent complications resulting from high BP. It is important to note that adherence to recommended antihypertensive medications is essential for adequate disease control, in addition to healthy lifestyle practices, resulting in reduced cardiovascular morbidity and mortality and lower healthcare costs.

When physical health is adequate, it is accompanied by vitality, which is essential for performing daily activities. The dynamism of hypertensive patients depends on their health status. Inadequate management of the disease can lead to physical and emotional fatigue.

Patient education is essential for optimal results in hypertensive patients. If they are aware of their disease, they can contribute more to their care and self-care. Emphasis should be placed on controlling systolic BP and diet. Healthcare professionals should inquire about the risk factors that impact the health of these patients, especially those that can be modified, as effective management of these factors contributes to better outcomes and CVRS results.

#### **CONCLUSIONS**

In conclusion, comprehensive health activities should be carried out among the population to educate people on how to improve their quality of life.

It is concluded that health assessments should be carried out in the population to detect risk factors and hypertension at an early stage.

It is concluded that preventive strategies should be provided to help raise awareness among the population with hypertension so that they can adequately control their disease and thus enjoy good health and general well-being.

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None.

# **CONFLICT OF INTEREST**

Authors declare that there is no conflict of interest.

# **AUTHORSHIP CONTRIBUTION**

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Data curation: Olmar Reymer Tumbillo Machacca, Juan Alberto Almirón Cuentas, Yaneth Fernández-Collado, Freddy Ednildon Bautista-Vanegas, Pablo Carías.

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