



ORIGINAL

## Health-related quality of life in hypertensive regular basic education teachers who attend a Cardiology Clinic in North Lima

### Calidad de vida relacionada con la salud en docentes hipertensos de educación básica regular que acuden a una Clínica de Cardiología de Lima Norte

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**Cite as:** Rosa-Longobardi CL, Asencios-Trujillo L, Asencios-Trujillo L, Gallegos-Espinoza D, Piñas-Rivera L, Solis HM-. Calidad de vida relacionada con la salud en docentes hipertensos de educación básica regular que acuden a una Clínica de Cardiología de Lima Norte. Salud, Ciencia y Tecnología 2024;4:736. <https://doi.org/10.56294/saludcyt2024736>.

Submitted: 07-10-2023

Revised: 27-12-2023

Accepted: 11-02-2024

Published: 12-02-2024

Editor: Dr. William Castillo-González 

#### ABSTRACT

**Introduction:** the Health-related quality of life considerably influences the well-being of the person, although when a disease occurs, this well-being tends to decrease and that this modifies the lifestyle of the person, therefore, the objective of the study is to determine the Health-related quality of life in relation to health in hypertensive regular basic education teachers who come to a cardiology clinic in North Lima, **Methods:** it is a quantitative, descriptive-cross-sectional study, with a total population of 124 hypertensive regular basic education teachers,

**Results:** in their results, we can observe that 13,7 % (n=17) have a very low Health-related quality of life in relation to their health, 26,6 % (n=33) low Health-related quality of life, 9,7 % (n=12) average Health-related quality of life, 43,5 % (n=54) high Health-related quality of life and 6,5 % (n=8) very high Health-related quality of life,

**Conclusions:** in conclusion, evaluations should be carried out in the health of the population, for the detection of risk factors and hypertension in an early stage.

**Keywords:** Health-related Quality of Life; Hypertension; Cardiovascular Risk.

#### RESUMEN

**Introducción:** La calidad de vida relacionada con la salud influye considerablemente en el bienestar de la persona, aunque cuando se presenta una enfermedad, este bienestar tiende a disminuir y que esto modifique el estilo de vida de la persona, por lo tanto, el objetivo del estudio es determinar la calidad de vida relacionada con la salud en relación a la salud en profesores de educación básica regular hipertensos que acuden a una clínica cardiológica de Lima Norte

**Métodos:** Es un estudio cuantitativo, descriptivo-transversal, con una población total de 124 profesores de educación básica regular hipertensos

**Resultados:** En sus resultados se observa que el 13,7 % (n=17) tienen una calidad de vida relacionada con la salud muy baja en relación a su salud, 26,6 % (n=33) calidad de vida relacionada con la salud baja, 9,7 % (n=12) calidad de vida relacionada con la salud media, 43,5 % (n=54) calidad de vida relacionada con la salud alta y 6,5 % (n=8) calidad de vida relacionada con la salud muy alta

**Conclusiones:** En conclusión, se deben realizar evaluaciones en la salud de la población, para la detección de factores de riesgo e hipertensión en etapa temprana.

**Palabras clave:** Calidad de Vida Relacionada con la Salud; Hipertensión; Riesgo Cardiovascular.

## INTRODUCTION

The World Health Organization (WHO) reported that, per year, more than 15 million individuals are reported to die from NCDs (mostly 30 to 69 years of age), these deaths being mostly premature, which could be avoided; this phenomenon occurs mainly in countries with low to medium economies. Inadequate nutrition, intake of harmful substances and sedentary lifestyle condition people to suffer from more NCDs<sup>(1)</sup>

Hypertension (HTN) is the key risk factor for cardiovascular disability and death that impacts a high number of individuals globally. Particularly in low- and middle-economy countries such as China, Brazil, India and Mexico, where the economic burden of LCA and HT together contribute to 50 % of the total number of economic estimates identified<sup>(2)</sup>

In Latin American countries, the prevalence of hypertension 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 %; also, in Colombia by 25 %<sup>(3)</sup> It is estimated that, by 2025, the figure could increase to 60 % reaching a figure of 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 Health-related quality of life (QoL) and can cause an impact on their health status.<sup>(5,6)</sup>

However, hypertension negatively affects patient QoL especially in older people, who have more health care needs and are more likely to have worse HRQOL than healthy people<sup>(7,8)</sup>

For hypertensive patients, risk factors originate in two ways, the non-modifiable ones that are age, sex and genetics, which are aspects that are already established in humans; on the other hand, there are modifiable ones related to the habits and behaviors adopted in the lifestyle, the 12 which are food, the consumption of harmful substances and sedentary lifestyle<sup>(9,10)</sup>

Therefore, improving lifestyle, making healthy habits, adequate adherence to treatment and maintaining positive mental health will allow hypertensive patients to avoid or reduce risk factors that may have consequences on their health well-being<sup>(11,12)</sup>

In a study conducted in Poland, with participants between the ages of 30 to 89 years, they stated in their results that, the Health-related quality of life of people who were mostly men had a medium and good Health-related quality of life, concluding that healthy behaviors, follow the treatment properly and periodically take their blood pressure, towards keeping people's Health-related quality of life healthy<sup>(13)</sup>

In a study conducted in Pakistan, with 384 hypertensive participants, they observed in their results that, most of the participants were male, 56 % of them had a poor Health-related quality of life related to health between the ages of 41 to 50 years, concluding that by not making healthy habits for the management of their disease, tended to have an inadequate Health-related quality of life<sup>(14)</sup>

In a study carried out in Angola, with 113 participants, they stated in their results that, with respect to hypertensive participants, 64,6 % of them had a regular Health-related quality of life and 35,4 % a poor Health-related quality of life, concluding that the conditions and difficulty in accessing health services aggravate the disease due to factors such as overcrowding, inadequate feeding and poor living conditions<sup>(15)</sup>

Therefore, the research objective is to determine the health-related quality of life in relation to health in hypertensive regular basic education teachers who attend a cardiology clinic in North Lima.

As justification, this research is very relevant for various reasons, whether hypertension is a chronic condition that affects the entire population, but that, in teachers, being exposed to stress factors and constant work, allows the risk that their quality of life is not adequate, since it influences their work performance and well-being.

## METHODS

### Research type and Design

In the study, according to its properties is quantitative, with respect to its methodology is descriptive-cross-sectional non-experimental.<sup>(16)</sup>

### Population

The total population was made up of 192 people diagnosed with hypertension who attended the cardiology service of a health facility.

According to the study, the survey was conducted with a voluntary response sampling bias of the residents of the district since the type of sampling in the research was for convenience.

### Inclusion Criteria

- People with hypertension over 18 years old
- People with hypertension who are continuators in the cardiology service.
- People with hypertension who are within the authority of the healthcare facility.

- People who volunteer in the study

### Technique and Instrument

The technique for the study is the survey, which was conducted using the questionnaire or data collection instrument Health-related quality of life Related to Health (SF-36).

The SF-36 is an instrument that is composed of 36 items distributed in 9 dimensions (physical functioning, physical role, body pain, general health, energy / fatigue, social functioning, emotional function, emotional well-being, and health change. In which its design is on a Likert-type scale, in which its scores range from 0 to 100 points, where, the response alternatives are varied, both polytomous and dichotomous and the higher the score, the higher the Health-related quality of life in relation to health hypertensive regular basic education teachers will have<sup>(17,18)</sup>

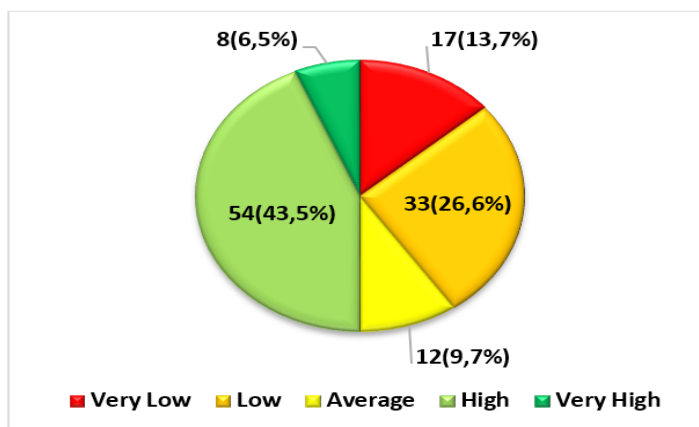
The sample adequacy measure to obtain the validation of the instrument by the Kaiser-Mayer-Olkin test obtained a coefficient of 0,901 ( $KMO > 0,8$ ) and the Bartlett sphericity test obtained significant results (Approx.  $X^2 = 6010,317$ ;  $gl = 630$ ;  $sig. = 0,000$ ).

Finally, Cronbach's alpha internal consistency coefficient was 0,827 ( $\alpha > 0,8$ ; N of elements = 36), so it is determined that the instrument has a high degree of reliability.

### Place and Application of the Instrument

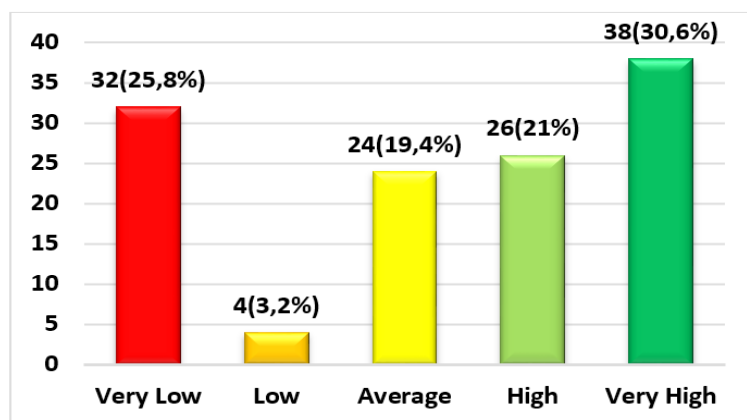
It was coordinated in the first to coordinate the administrative procedures so that access to the health establishment is allowed and likewise to the users for the standard, in addition to providing information about the research and thus have the knowledge about what is going to be done.

## RESULTS



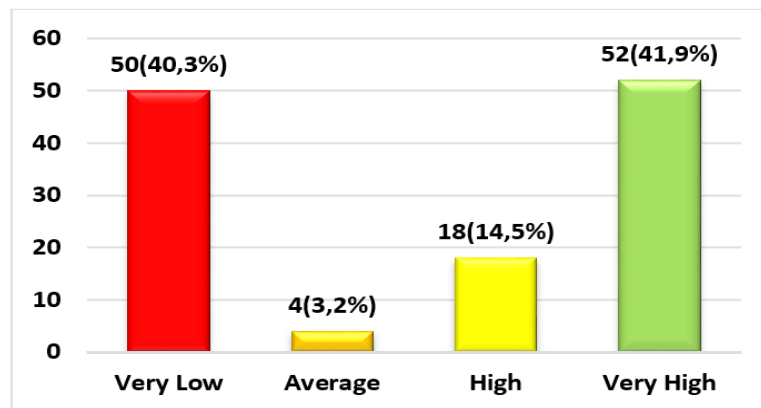
**Figure 1.** Health-related quality of life in relation to health in hypertensive regular basic education teachers who attend a cardiology clinic in North Lima

In figure 1, it can be seen that 13,7 % of participants have a very low Health-related quality of life in relation to their health, 26,6 % low Health-related quality of life, 9,7 % average Health-related quality of life, 43,5 % high Health-related quality of life and 6,5 % very high Health-related quality of life.



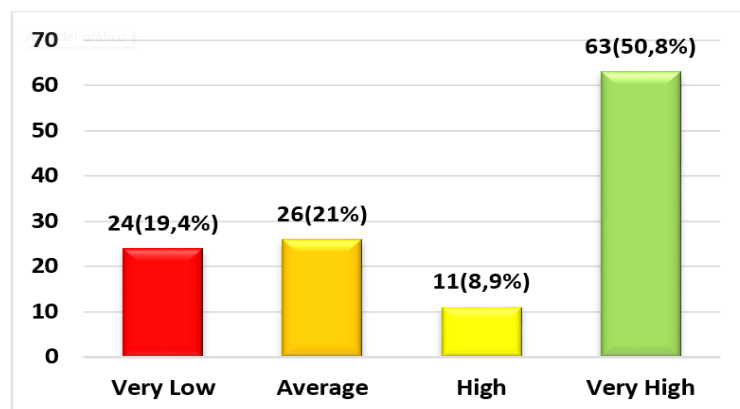
**Figure 2.** Health-related quality of life in relation to health in its physical functioning dimension in hypertensive regular basic education teachers who attend a cardiology clinic in North Lima

In figure 2, it could be observed with respect to the physical functioning dimension that, in their results, 25,8 % of the participants have a very low Health-related quality of life in relation to their health, 3,2 % low Health-related quality of life, 19,4 % average Health-related quality of life, 21 % high Health-related quality of life, 30,6 % very high Health-related quality of life.



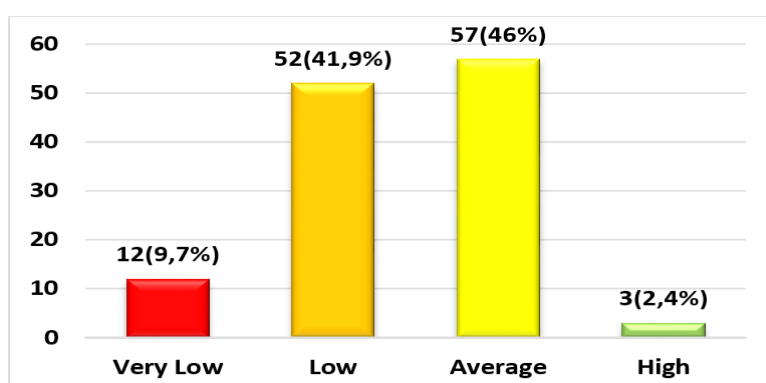
**Figure 3.** Health-related quality of life in relation to health in its physical role dimension in hypertensive regular basic education teachers who attend a cardiology clinic in North Lima

In figure 3, with respect to the results of the physical role dimension, it can be seen that 40,3 % of the participants have a very low Health-related quality of life in relation to their health, 3,2 % average Health-related quality of life, 14,5 % high Health-related quality of life and 41,9 % very high Health-related quality of life.



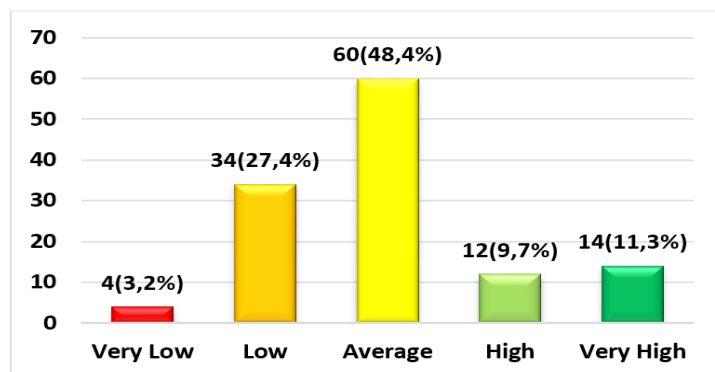
**Figure 4.** Health-related quality of life in relation to health in its dimension body pain in hypertensive regular basic education teachers who attend a cardiology clinic in North Lima

In figure 4, in the results of the body pain dimension, we can observe that 19,4 % of the participants have a very low Health-related quality of life in relation to their health, 21 % average Health-related quality of life, 8,9 % high Health-related quality of life and 50,8 % very high Health-related quality of life.



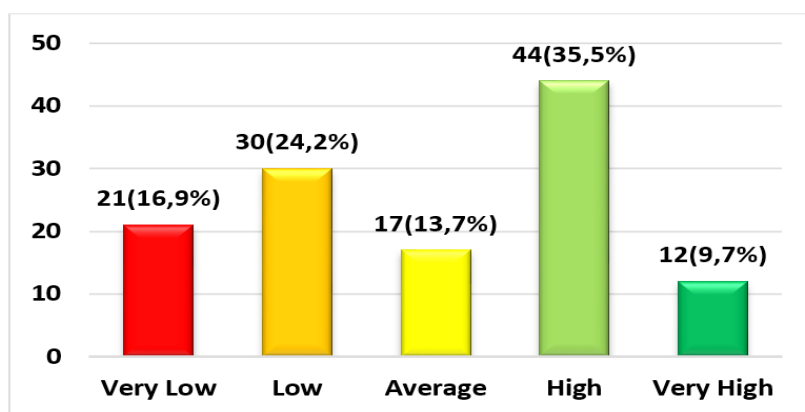
**Figure 5.** Health-related quality of life in relation to health in its general health dimension in hypertensive regular basic education teachers who attend a cardiology clinic in North Lima

In figure 5, with respect to the results of the general health dimension, it can be seen that 9,7 % of the participants have a very low Health-related quality of life in relation to their health, 41,9 % low Health-related quality of life, 46 % average Health-related quality of life and 2,4 % high Health-related quality of life.



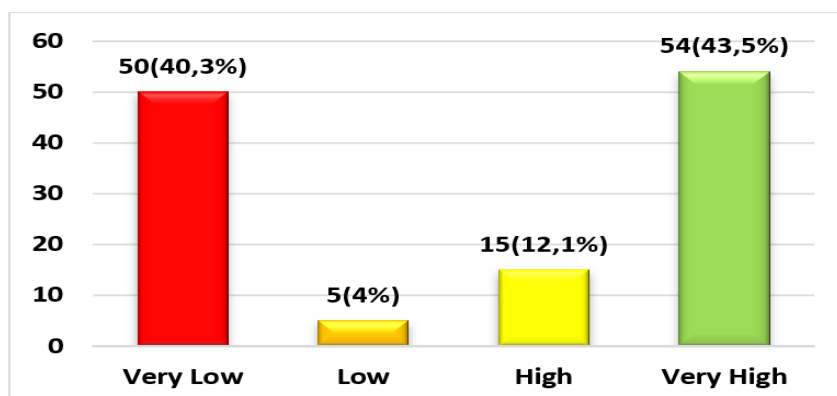
**Figure 6.** Health-related quality of life in relation to health in its energy/fatigue dimension in hypertensive regular basic education teachers who attend a cardiology clinic in North Lima

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



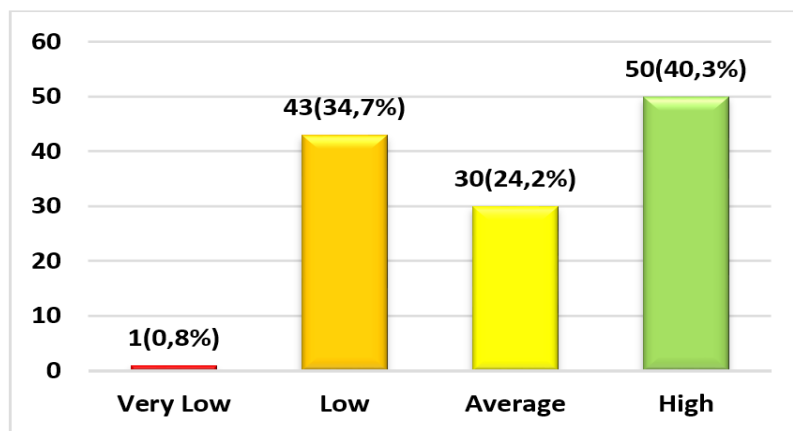
**Figure 7.** Health-related quality of life in relation to health in its dimension social function in hypertensive regular basic education teachers who attend a cardiology clinic in North Lima

In figure 7, with respect to the results of the social function dimension, we can observe that 16,9 % of the participants have a very low Health-related quality of life in relation to their health, 24,2 % low Health-related quality of life, 13,7 % average Health-related quality of life, 35,5 % high Health-related quality of life and 9,7 % very high Health-related quality of life.



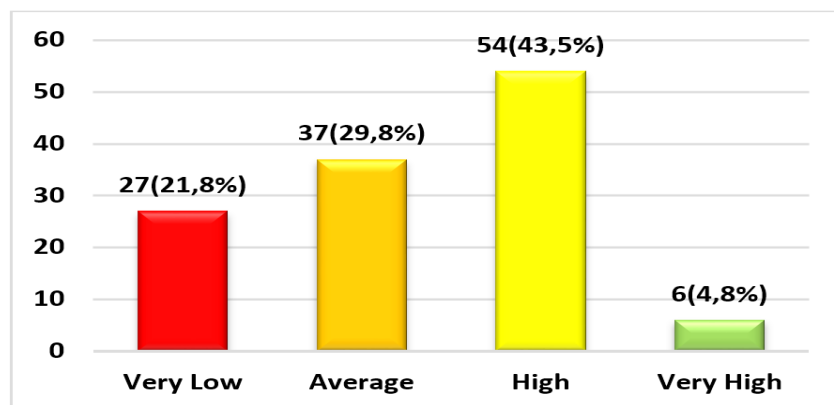
**Figure 8.** Health-related quality of life in relation to health in its dimension emotional function in hypertensive regular basic education teachers who attend a cardiology clinic in North Lima

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



**Figure 9.** Health-related quality of life in relation to health in its dimension emotional well-being in hypertensive regular basic education teachers who attend a cardiology clinic in North Lima

In figure 9, with respect to the results of the emotional well-being dimension, we can observe that 0,8 % of the participants have a very low Health-related quality of life in relation to their health, 34,7 % low Health-related quality of life, 24,2 % average Health-related quality of life and 40,3 % high Health-related quality of life.



**Figure 10.** Health-related quality of life in relation to health in its dimension change of health in hypertensive regular basic education teachers who come to a cardiology clinic in North Lima

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

## DISCUSSION

NCDs and hypertension are health problems that are becoming increasingly frequent globally and in our country; The new ways of life, the advertising industry and the little impact obtained in education and health promotion, condition the health of today's individuals.

As for HRQOL, it presented a high level, this is because the health condition of hypertensive patients will depend on health controls, control of systolic BP, weight and the practice of lifestyles such as exercise and diet; especially in older adults who are more vulnerable to changes that may alter hypertension in their body and that can cause cardiovascular risks in the same affected their Health-related quality of life, therefore health education has a positive-significant impact on the knowledge, behaviors and HRQOL of hypertensive regular basic education teachers.

Regarding the dimension physical functioning and physical role, in their results it was observed that they



presented a very low level of Health-related quality of life in relation to health, this is because they are closely linked and can be affected or not depending on the health condition, which in turn depends on the controls that the patient takes and the risk factors present. The older you are more likely to have comorbidities; Likewise, if systolic BP levels are not controlled, negative sequelae may appear that can severely affect the development of home and work activities. Older age and certain comorbidities affect the locomotor system, which limits physical activity related to domestic and work activities.

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

Physical health when adequate is accompanied by vitality, this being an important aspect for the execution of daily activities. The vitality of hypertensive patients depends on their health condition. Improper management of the disease can lead to physical and emotional fatigue.

Patient education is essential to have optimal results in these hypertensive patients. If they are aware of their illness, they will be able to contribute more to their own care and self-care. The control of systolic BP and feeding should be emphasized. The health professional should inquire about the risk factors that impact the health of these patients, mainly modifiable ones, an effective management of these contributes to a better evolution and results of HRQOL.

That is why this research can develop different strategies for practice and policy to improve the quality of life in teachers with hypertension, strategies such as medical practice and comprehensive care, labor welfare programs, health and education policies among others that help this.

## CONCLUSIONS

In conclusion, health activities in the population must be realigned in an integral way, in which it allows educating the population on how to improve the health-related quality of life.

It is concluded that evaluations should be conducted in the health of the population, for the detection of risk factors and hypertension at an early stage.

It is concluded that preventive strategies should be provided to help raise awareness of the population with hypertension that allows them to conduct their adequate controls for their disease, so that they have good health and general well-being.

The limitation in our study is that some hypertensive teachers being in this condition did not attend their controls, which did not allow the same day to fill out the survey, and had to be done on other days, but that, in addition to access to them to be in the study that mostly accepted.

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200012150-00008.

#### **FINANCING**

The authors did not receive financing for the development of this research.

#### **CONFLICT OF INTEREST**

The authors declare that there is no conflict of interest.

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*Drafting - original draft:* Djamila Gallegos-Espinoza, Livia Piñas-Rivera.

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