Salud, Ciencia y Tecnología. 2023; 3:558
doi: 10.56294/saludcyt2023558

ORIGINAL

Quality of Life in Hypertensive University students Attending a Health Facility for Care in North Lima

Calidad de vida en universitarios hipertensos que acuden a un establecimiento de salud para su atención en Lima Norte

Carlos La Rosa-Longobardi[1], Lucia Asencios-Trujillo[1], Lida Asencios-Trujillo[1], Djamila Gallegos-Espinoza[1], Livia Piñas-Rivera[1], Hernan Matta-Solis[2]

[1]Universidad Nacional de Educación Enrique Guzmán y Valle, Escuela de Posgrado. Lima, Perú.
[2]Instituto Peruano de Salud Familiar, TIC Research Center: eHealth & eEducation. Lima, Perú.

Cite as: Gallegos-Espinoza D, Rosa-Longobardi CL, Asencios-Trujillo L, Piñas-Rivera L, Trujillo LA, Matta-Solis H. Quality of Life in Hypertensive University students Attending a Health Facility for Care in North Lima. Salud, Ciencia y Tecnología 2023;3:558. https://doi.org/10.56294/saludcyt2023558.

Submitted: 27-06-2023 **Revised:** 01-08-2023 **Accepted:** 24-10-2023 **Published:** 25-10-2023

Editor: Dr. William Castillo-González

ABSTRACT

Introduction: hypertension is one of the most common problems where the quality of life of the person suffering from this disease is compromised, altering their health well-being in the short and long term, so the research objective is to determine the quality of life in hypertensive people who come to a health facility for their care in North Lima.
Methods: it is a quantitative, descriptive-cross-sectional study, consisting of 150 participants who answered a questionnaire on sociodemographic aspects and the mini-questionnaire on quality of life in hypertension.
Results: in the results, females have a better quality of life than males.
Conclusions: it is concluded that educational counseling about the disease should be provided to people who are diagnosed with it.

Keywords: Quality Of Life; Arterial Hypertension; Cardiovascular Disease; Public Health.

RESUMEN

Introducción: la hipertensión arterial es uno de los problemas más comunes donde la calidad de vida de la persona que padece esta enfermedad se ve comprometida, alterando su bienestar de salud a corto y largo plazo, por lo que el objetivo de la investigación es determinar la calidad de vida en personas hipertensas que acuden a un establecimiento de salud para su atención en Lima Norte.
Métodos: es un estudio cuantitativo, descriptivo-transversal, conformado por 150 participantes que respondieron un cuestionario sobre aspectos sociodemográficos y el minicuestionario sobre calidad de vida en hipertensos.
Resultados: en los resultados, las mujeres tienen mejor calidad de vida que los varones.
Conclusiones: se concluye que se debe proporcionar asesoramiento educativo sobre la enfermedad a las personas que son diagnosticadas de la misma.

Palabras clave: Calidad De Vida; Hipertensión Arterial; Enfermedad Cardiovascular; Salud Pública.

INTRODUCTION

High blood pressure is best known as a disorder in which blood vessels persistently have a high blood pressure. The higher the blood pressure, the more difficult it is for the heart to pump[(1)] and although it is

simple to diagnose and relatively easy to treat with low-cost drugs. A recent study spanning the period from 1990 to 2019 revealed significant gaps in diagnosis and treatment, with an estimated 580 million people with high blood pressure (41 % of women and 51 % of men) unaware of their condition because they have never been diagnosed.[2]

In the last thirty years according to the World Health Organization (WHO) detected that people between 30 and 79 years with hypertension have increased from 650 million to 1280 million and almost half of these people did not know they had hypertension.[3] Likewise, the United Nations (UN), according to recent research, dated that Canada, Peru and Switzerland had one of the lowest prevalence of hypertension in the world in 2019, while some of the highest rates were observed in the Dominican Republic, Jamaica and Paraguay for women and Hungary, Paraguay and Poland for men.[4]

It has been identified that hypertensive people with COVID-19 tend to have an unfavorable evolutionary process; indicating that it is not advisable to discontinue treatment with angiotensin-converting enzyme (ACE) inhibitors or receptor antagonists due to the cardiovascular benefits they provide and the lack of evidence demonstrating the association between these drugs and an unfavorable evolution.[5,6]

Cardiovascular diseases are one of the leading causes of death in most countries of the Americas, and responsible for 30 % of deaths in the region.[7]

In Africa, the highest prevalence of hypertension is 27 %, while the Region of the Americas has the lowest prevalence of hypertension at 18 %.[8]

In Asia, mainly in Wuhan, China, the initial epicenter of the coronavirus (COVID-19) pandemic, 140 individuals with COVID-19 were studied and showed a higher prevalence of hypertension in university students who developed severe forms compared to those of a better evolutionary course.[9]

In Europe, Italy, hypertension was reported to account for 49 % and cardiovascular disease to account for 21 %, both of which were the most frequent comorbidities, cancer (8 %) and chronic obstructive pulmonary disease (4 %).[10]

In North America, United States, about half of its population aged 20 and older has high blood pressure,[11] which estimates about 1 in 3 American adults have high blood pressure without even knowing they have it and as a result do not receive treatment to control their blood pressure.[12]

In Central America, Cuba, cardiovascular diseases are the leading cause of death with a total of 25,684 deaths in 2018 (rate of 228,2 per 100,000 inhabitants) and that, of these, 4,404 were due to Systemic Arterial Hypertension (HTN), which presented a prevalence of 225,2 per 1000 inhabitants [13] in that year.[13]

In Latin America, in Chile, it was reported that more people die from cardiovascular diseases than from any other cause. More than a quarter of all deaths recorded each year, nearly 30,000 in total, are due to these diseases.[14] About one in four men and one in five women live with hypertension: That's more than four million people. Fortunately, hypertension rates have declined steadily in recent years.[15]

Likewise, in the case of Peru, a recent study on trends in prevalence and treatment of hypertension reported that the standardized prevalence of hypertension by age increased from 18,2 % in 2015 to 20,2 % in 2018, while the prevalence of previous diagnosis and control of this condition showed a decrease.[16]

Therefore, the objective of the research is to determine the quality of life in hypertensive people who come to a health facility for their care in North Lima.

METHODS

Research type and Design

In the present research for its qualities is quantitative of descriptive-transversal methodology.[17]

Population and Sample

The total population in this study is made up of 150 people who have been diagnosed with hypertension.

Inclusion Criteria

- People between the ages of30 and 80
- People who are continuously cared for in the health facility.
- People who voluntarily wish to participate in the study.

Technique and Instrument

The technique for data collection was the survey, in which the instrument is written.

For data collection, the survey is presented in two parts: sociodemographic aspects and the Mini Questionnaire on Quality of Life in Arterial Hypertension (MINICHAL), in which it is composed of 2 dimensions (mood and somatic manifestations), with 16 items with responses on a Likert-type scale where "0 = no, absolutely", "1 = Yes, little", "2 = Yes, enough" and "3 = Yes, a lot", in which, the final score varies between 0 (best level of health) to 48 (worst level of health) points that is, the higher the score, the worse the health level the patient

diagnosed with hypertension will have.[18]

The validity of the instrument was determined through the Kaiser-Mayer-Olkin sample adequacy obtaining 0,884 (KMO > 0,5), while Bartlett's sphericity test was obtained (X^2 approx. = 4136,961; gl = 120; p = 0,000), so the instrument is viable for study.

The reliability of the instrument was determined according to Cronbach's alpha statistical test, obtaining a 0,966 (α > 0,8), which makes the instrument reliable for study.

Place and Application of the Instrument

To carry out the study, first the coordination was made with the head of the health facility and in addition to prior coordination with the other services where university students with hypertension are treated for their care.

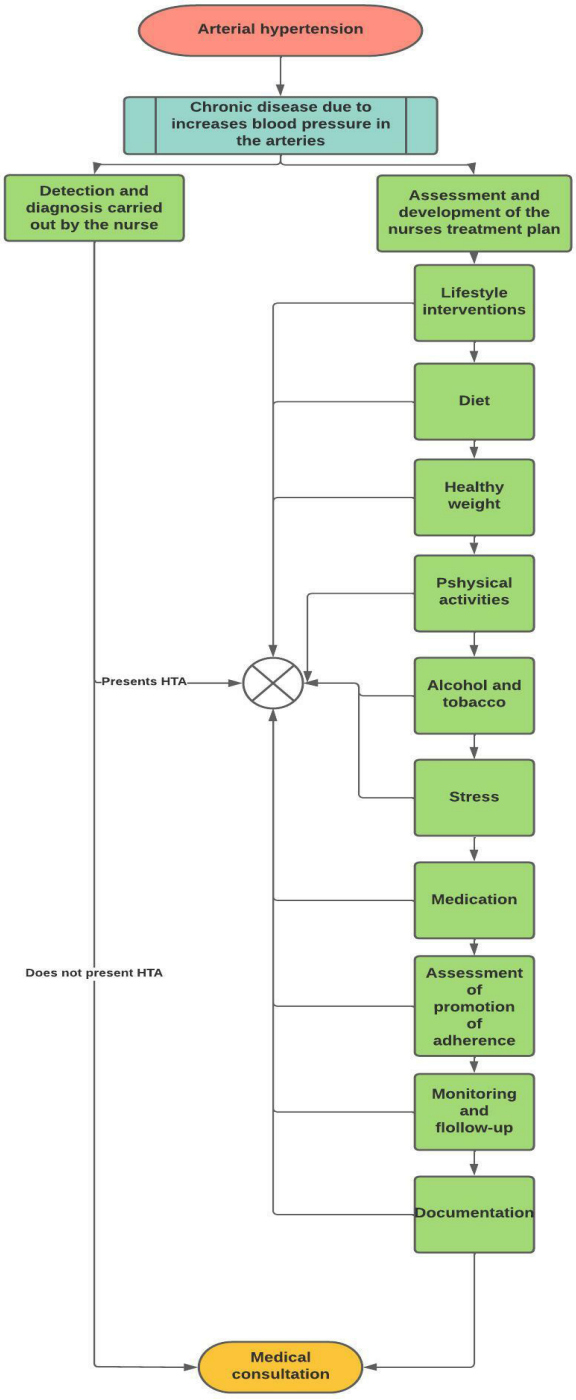


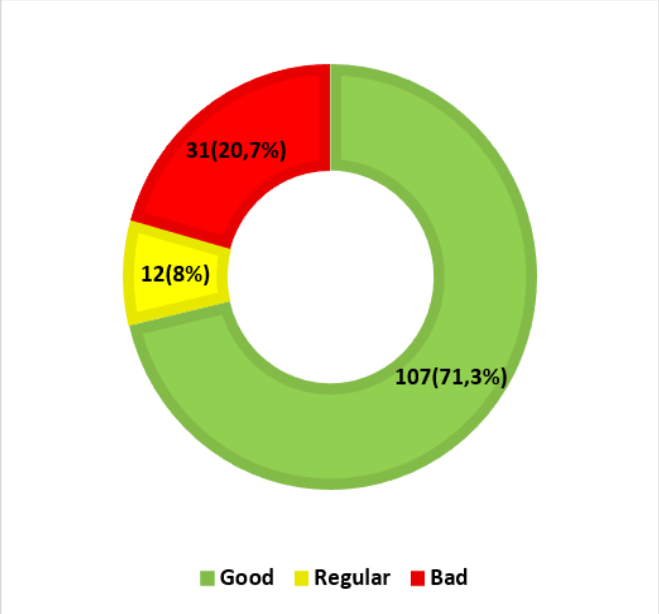
Figure 1. Degradation on the interventions nursing in university student's hypertension arterial

This diagram shows the nursing intervention in university students diagnosed with hypertension, which is managed as follows:

1. Detection and diagnosis of hypertension
   - This process will be used by the nurse for any situation that is appropriate to assess blood pressure in adults with the ease of facilitating the early detection of hypertension.
   - In turn, the nurse will be well informed regarding any process of diagnosing HTN.
   - Nurses will educate all university students with hypertension on self-monitoring techniques and monitoring their blood pressure within their home, as well as guiding the use of appropriate equipment to check their blood pressure.
2. Assessment and development of the treatment plan for hypertension
   - Lifestyle intervention: All nursing professionals will work with the patient with hypertension in order to identify the lifestyles that can influence their management of hypertension, recognizing areas that can be changed and projecting a strategy in which they can help achieve the patient's goal of preventing secondary complications of hypertension.
   - Diet: All nursing professionals will evaluate and educate all university students with hypertension about the risk factors that an inadequate diet can exert.
   - Healthy weight: Every nursing professional will assess the BMI and waist circumference, where the purpose is to apply strategies that allow maintaining a healthy weight.
   - Exercise: All nursing professionals will assess the current state of physical activity performed by the patient.
   - Alcohol and tobacco: All nurses will have to routinely recommend limited alcohol consumption and in turn about the relationship of smoking with cardiovascular problems.
   - Stress: All nursing professionals will advise university students with hypertension to understand the reaction they can make to stressful situations and how to cope effectively.
   - Medication: Every nursing professional will provide education to the patient regarding the proper management of medication prescribed by the physician at home.
   - Evaluation and promotion of adherence: All nursing professionals will provide information if necessary to university students with hypertension in making decisions regarding their treatment plan, as well as encouraging them to continue with the routine and apply reminders to facilitate adherence.
   - Monitoring and follow-up: Every nursing professional will support every patient to receive a correct follow-up in collaboration with the health team.
   - Documentation: All nursing professionals will record and share information exhaustively regarding the management of the patient before their disease to the health team.

Finally, once all the necessary information about the patient with hypertension has been collected, a medical visit will be carried out every certain time so that it is observed if the patient complies with the treatment in addition to performing their care correctly within their home.

RESULTS



https://doi.org/10.56294/saludcyt2023558

Figure 1. Quality of life in hypertensive people who come to a health facility for their care in North Lima

Figure 1 shows that the quality of life of 71,2 % (n=107) people with hypertension is good, 8 % (n=12) people with hypertension is fair and 20,2 % (n=31) people with hypertension is poor.

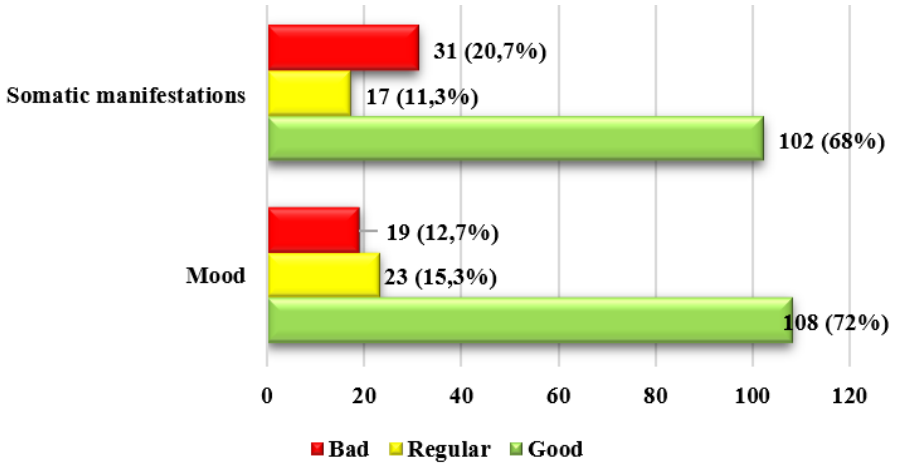


Figure 2. Dimensions of Quality of Life in Hypertensive People Attending a Health Facility for Care in North Lima

Figure 2 shows the dimensions on quality of life in hypertensive university students, where in the dimension somatic manifestations, 68 % (n = 102) people with hypertension have a good quality of life, 3 % (n = 11) people with hypertension have a regular quality of life and 20,2 % (n = 31) people with hypertension have a poor quality of life. Regarding their mood dimension, 72 % (n=108) people with hypertension have a good quality of life, 15,2 % (n=23) people with hypertension have a regular quality of life and 12,2 % (n=19) of people with hypertension have a poor quality of life.

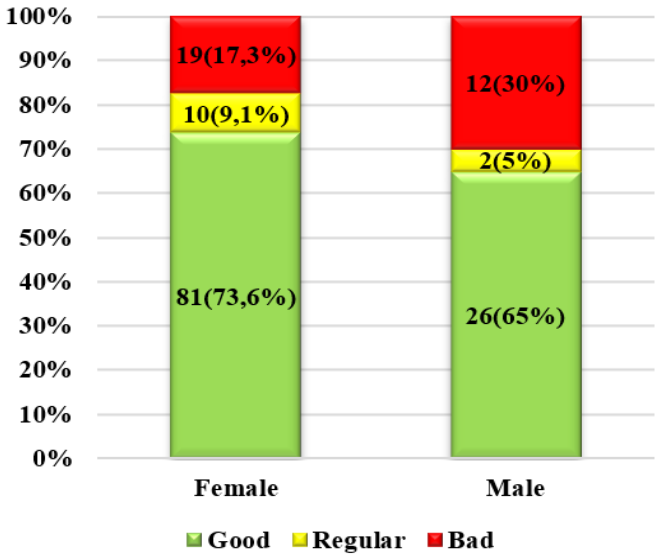


Figure 3. Quality of life in relation to sex in hypertensive people who come to a health facility for their care in North Lima

Figure 3 shows the sex of people with hypertension in the study related to quality of life where, 73,2 % (n=81) of females have a good quality of life, 9,2 % (n=10) a regular quality of life and 17,2 % (n=19) have a poor quality of life; With respect to the male sex, 65 % (n=26) have a good quality of life, 5 % (n=2) have a regular quality of life and 30 % (n=12) have a poor quality of life.

It can be seen in figure 4, the ages of people with hypertension in relation to quality of life, where, people between the ages of 30 to 50 years, 64 % (n = 88) have a good quality of life, 15,2 % (n = 12) have a regular quality of life and 20,2 % (n = 31) have a poor quality of life; while in the ages of 60 to 80 years, 100 % (n=19) have a good quality of life, none of the people with hypertension between the ages of 60 to 80 years had levels of regular or poor quality of life.

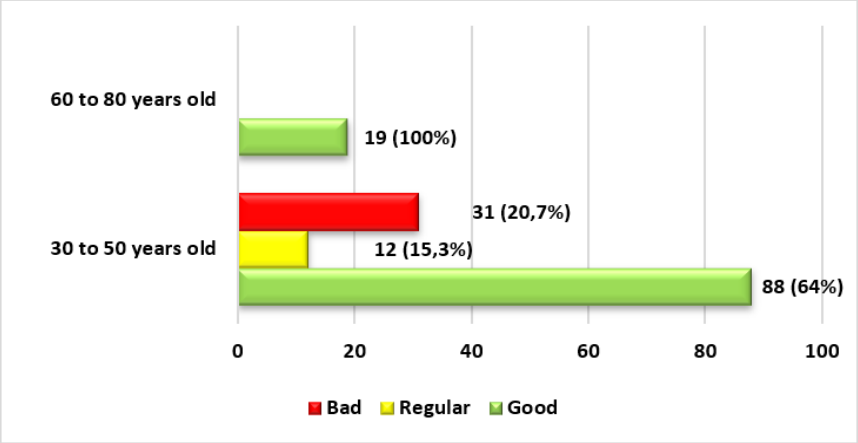


Figure 4. Quality of life in relation to age in hypertensive people who come to a health facility for their care in North Lima

DISCUSSION

According to the research paper, an emphasis has been given according to public health on the quality of life in people with hypertension in the study.

Therefore, with regard to the results of the main variable quality of life in hypertensive university students, we can observe that most of the population has a good quality of life, so we can interpret that the population in its majority has been able to develop skills that allow them to have a good quality of life, where nutrition, physical activity, mental health and family relationship, have played a crucial role in improving their quality of life, since these factors keep their health well-being balanced in order to avoid high risks that their disease usually entails. Meléndez et al.[15] argue that most people with hypertension, by modifying their lifestyle, tend to improve their quality of life, since by performing activities that improve their health well-being, it helps to minimize or avoid risks caused by their disease.[19]

As for its dimensions state of aim and somatic manifestations, the participants have a good quality of life, this, we interpret, in terms of the prioritization that the person gives to his disease, depending on sex or age, since, when he is young, many of the people are usually careless when presenting a disease, But over time they prioritize their controls and thus prevent the risks that their disease contracts, since the older they prioritize their disease since they have high probabilities of developing other diseases due to comorbidity with their disease, and also present cardiovascular risks. Zegarra et al.[6] argue that most people tend to be more attentive to their disease when it is already advanced, therefore, being aware that their disease will live with the person all their lives, modifies their lifestyle to have a healthy life.[20]

Therefore, the care carried out by nursing professionals will have an important role in hypertensive university students, given that counseling, assessing the person with hypertension, coping strategies, and the intervention performed to improve lifestyle, helps the person to live with the disease but minimizing the risks that hypertension can entail, maintaining your long-term healthy quality of life.

CONCLUSIONS

It is concluded that counseling should be carried out that can educate the person with AHT so that they can improve their self-care and health well-being.

It is concluded that the person with AHT should be guided about the possible risks that can be caused by poor self-care in their health well-being and thus be able to prevent it.

It is concluded that campaigns should be carried out on the prevention of the risks caused by hypertension in people with this disease.

BIBLIOGRAPHIC REFERENCES

1. Organizacion Mundial de Salud. Hipertensión. OMS 2022:1-10. https://www.who.int/es/health-topics/hypertension#tab=tab_1.

2. Zhou B, Carrillo-Larco RM, Danaei G, Riley LM, Paciorek CJ, Stevens GA, et al. Worldwide trends in hypertension prevalence and progress in treatment and control from 1990 to 2019: a pooled analysis of 1201 population-representative studies with 104 million participants. The Lancet 2021;398:957-80. https://doi.org/10.1016/S0140-6736(21)01330-1.

3. Organizacion Mundial de la Salud. Más de 700 millones de personas con hipertensión sin tratar. OMS 2021:1-10. https://www.who.int/es/news/item/25-08-2021-more-than-700-million-people-with-untreated-hypertension (accedido 30 de octubre de 2022).

4. Antunes M, Mendez T, De Lima L, Ravelo R, De Las Mercedes G, Saraiva T, et al. Enfermedad arterial coronaria y sus características clínico-angiográficas:Realidad de un centro de atención terciaria privado en Angola. CORSALUD 2021;3:299-310.

5. Revueltas M, Molina E, Benitez M, Hinojosa M, Fernandez S, Betancourt J. Caracterización de la prevalencia y mortalidad por hipertensión arterial en Cuba, decenio 2009- 2018. Revista Habanera de Ciencias Medicas 2021;20:1-21.

6. Zegarra J, Oliveros S, Vilela S, Chero R, Marcelo G, Herrera L, et al. Cardiovascular risk in patients who go to the medical office of a private health center in North Lima. Advances in Science, Technology and Engineering Systems 2021;6:626-30. https://doi.org/10.25046/aj060168.

7. National Hearts L and BI. Presión arterial alta. NHLBI 2022:1-4. https://www.nhlbi.nih.gov/es/salud/presion-arterial-alta.

8. Guan W, Ni Z, Hu Y, Liang W, Ou C, He J, et al. Clinical Characteristics of Coronavirus Disease 2019 in China. New England Journal of Medicine 2020;382:1708-20. https://doi.org/10.1056/nejmoa2002032.

9. Zhang J jin, Dong X, Cao Y yuan, Yuan Y dong, Yang Y bin, Yan Y qin, et al. Clinical characteristics of 140 patients infected with SARS-CoV-2 in Wuhan, China. Allergy: European Journal of Allergy and Clinical Immunology 2020;75:1730-41. https://doi.org/10.1111/all.14238.

10. Onder G, Rezza G, Brusaferro S. Case-Fatality Rate and Characteristics of Patients Dying in Relation to COVID-19 in Italy. JAMA - Journal of the American Medical Association 2020;323:1775-6. https://doi.org/10.1001/jama.2020.4683.

11. Organizacion Panamericana de la Salud. Hipertensión. OPS 2022:1-13. https://www.paho.org/es/temas/hipertension#:~:text=La presión arterial alta igual,para muertes por enfermedades cardiovasculares.

12. Sociedad Europea de Cardiología, Sociedad Europea de Hipertensión. Guía Europea de HTA (ESH / ESC) 2018 : resumen de puntos clave. Almirallmed 2022:2022. https://atencionprimaria.almirallmed.es/cientificos/puntos-clave-de-los-estudios-emphasis-y-ephesus/.

13. Giralt A, Rojas J, Leiva J. Relationship between COVID-19 and Hypertension. Revista Habanera de Ciencias Medicas 2020;2:1-11.

14. Toconas L del C. Empathy in nursing professionals for care subjects with depression. Community and Interculturality in Dialogue 2023;3:67-67. https://doi.org/10.56294/cid202367.

15. Meléndez I, García E, Pérez A, Vivas N. Hipertensión arterial: estilos de vida y estrategias de intervención. Revista Científica de Enfermería 2020:35. https://doi.org/10.14198/recien.2020.20.04.

16. Villarreal D, Carrillo R, Bernabe A. Short-term trends in the prevalence, awareness, treatment, and control of arterial hypertension in Peru. Journal of Human Hypertension 2021;35:462-71. https://doi.org/10.1038/s41371-020-0361-1.

17. Fernández C, Baptista P. Metodología de la Investigación. 2015:634.

18. Badia X, Roca À, Dalfó A, Gascón G, Abellán J, Lahoz R, et al. Validation of the short form of the Spanish Hypertension Quality of Life Questionnaire (MINICHAL). Clinical Therapeutics 2002;24:2137-54. https://doi.org/10.1016/S0149-2918(02)80103-5.

19. Téllez FC, Gimenez M, González C. Education for the control of arterial hypertension in older adults: An effective approach. Community and Interculturality in Dialogue 2021;1:3-3. https://doi.org/10.56294/cid20213.

20. Montano M de las NV, Martínez M de la CG, Lemus LP. Rehabilitation of occupational stress from the perspective of Health Education. Community and Interculturality in Dialogue 2023;3:71-71. https://doi.org/10.56294/cid202371.

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.

AUTHORSHIP CONTRIBUTION

Conceptualization: Lucia Asencios-Trujillo, Lida Asencios-Trujillo, Carlos La Rosa-Longobardi, Djamila Gallegos-Espinoza, Livia Piñas-Rivera, Hernan Matta-Solis.
Data curation: Lucia Asencios-Trujillo, Lida Asencios-Trujillo.
Formal analysis: Lida Asencios-Trujillo.
Acquisition of funds: Djamila Gallegos-Espinoza, Livia Piñas-Rivera.
Research: Hernan Matta-Solis, Lucia Asencios-Trujillo, Lida Asencios-Trujillo.
Methodology: Lida Asencios-Trujillo.
Project management: Djamila Gallegos-Espinoza, Livia Piñas-Rivera.
Resources: Lucia Asencios-Trujillo, Lida Asencios-Trujillo.
Software: Lucia Asencios-Trujillo, Lida Asencios-Trujillo.
Supervision: Lucia Asencios-Trujillo, Lida Asencios-Trujillo.
Validation: Lucia Asencios-Trujillo, Lida Asencios-Trujillo, Carlos La Rosa-Longobardi.
Display: Lucia Asencios-Trujillo.
Drafting - original draft: Djamila Gallegos-Espinoza, Livia Piñas-Rivera.
Writing - proofreading and editing: Lucia Asencios-Trujillo.