SALUD, CIENCIA Y TECNOLOGÍA

Check for updates

ORIGINAL

Quality of Life in Hypertensive University professors and Nursing Intervention during the COVID-19 Pandemic in A Health Facility in North Lima

Calidad de Vida en Docentes Universitarios Hipertensos e Intervención de Enfermería durante la Pandemia por COVID-19 en un Establecimiento de Salud de Lima Norte

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

[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.

ABSTRACT

Introduction: Hypertension is one of the diseases that puts at risk the quality of life of the person making him vulnerable to presenting another disease, therefore, the objective of research is to determine the quality of life in hypertensive university professors and the intervention of nursing during pandemic of COVID-19 in a health facility in North Lima.
Methods: it is a quantitative, descriptive-cross-sectional study, with a total population of 265 hypertensive university professors, who responded to a questionnaire of sociodemographic data and the SF-36 questionnaire.
Results: in their results, it was observed that 16(6 %) of hypertensive university professors have a low quality of life 93 (35,1 %) average quality of life, 76 (28,7 % high quality of life and 80 (30,2 %) a very high quality of life.
Conclusions: in conclusion, strategies should be sought that allow the guidance of the person with hypertension on the possible risks of their disease and how to prevent it.

Keywords: Quality of Life; Hypertension; Coronavirus; Public Health.

RESUMEN

Introducción: la hipertensión arterial es una de las enfermedades que pone en riesgo la calidad de vida de la persona haciéndola vulnerable a presentar otra enfermedad, por lo tanto, el objetivo de la investigación es determinar la calidad de vida en docentes universitarios hipertensos y la intervención de enfermería durante la pandemia de COVID-19 en un establecimiento de salud de Lima Norte.
Métodos: es un estudio cuantitativo, descriptivo-transversal, con una población total de 265 profesores universitarios hipertensos, quienes respondieron un cuestionario de datos sociodemográficos y el cuestionario SF-36.
Resultados: en sus resultados se observó que 16(6 %) de los profesores universitarios hipertensos tienen una calidad de vida baja 93 (35,1 %) calidad de vida media, 76 (28,7 % calidad de vida alta y 80 (30,2 %) una calidad de vida muy alta.
Conclusiones: en conclusión, se deben buscar estrategias que permitan orientar a la persona con hipertensión sobre los posibles riesgos de su enfermedad y cómo prevenirla.

Palabras clave: Calidad de Vida; Hipertensión; Coronavirus; Salud Pública.

INTRODUCTION

Coronavirus disease-2019 is caused by the severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) virus, which has spread globally as a severe pandemic. In December 2019, it was first identified in the city of Wuhan, capital of Hubei province, People's Republic of China, when cases were reported of a group of sick people with an unknown type of pneumonia.[1] Due to acute respiratory distress syndrome (ARDS); while the leading cause of mortality from CoViD-19, particularly in older adults and those with compromised immune systems, is respiratory failure; a significant number of university professors' manifest cardiovascular pathologies, as well as congestive heart failure (CHF), strokes, and even arterial hypertension (HTN).[2,3]

According to the World Health Organization (WHO), cardiovascular diseases (CVD) are one of the biggest public health problems worldwide, being the main cause of mortality.[4,5] Cardiovascular risk factors (CVR) are conditions present in an individual that increase the likelihood of suffering from CVD, among these are arterial hypertension (HTN), smoking, hypercholesterolemia, etc.[6,7,8]

Hypertension (HTN) is recognized as the leading cause of preventable mortality worldwide; It affects more than 1 billion people in the world, mostly those in low- and middle-income countries. It is a silent disease that can occur without apparent symptoms, but can cause damage to target organs, such as the cardiovascular system and kidneys, among others.[9,10]

The increase in blood pressure, in fact, is an important risk factor that influences the development of cardiovascular diseases that, associated with obesity, diabetes and dyslipidemia, causes a greater predisposition to the development of chronic non-communicable diseases such as, for example, those that make up metabolic syndrome, among others.[11,12]

The concept of Quality of Life (QOL) is related to the perception that an individual has about their life situation, in the context of the cultural and value system in which the individual lives, and about their goals and expectations. QoF is a broad concept that is most complexly affected by the physical health, psychological state, level of dependence, social relationships, personal beliefs and convictions of the individual and by his environment.[13]

In a study conducted in Argentina[14] with 105 adult women which calculated body mass index (BMI) and waist-to-height ratio (ICT). Overweight accounted for 38,1 %, obesity 17,1 % and abdominal obesity 84 %. The prevalence of hypertension was 16,2 %. Exists

In a study conducted in Peru[15], 58,8 % of hypertensive university professors practiced an inadequate lifestyle and 58,4 % were not adherent to treatment. To the multivariate analysis, an adequate practice of lifestyles in the dimensions: nutrition (PRa=1,56; CI 95%=1,14-2,14), interpersonal relationships (PRa=1,58; CI 95%=1,05-2,36) and health responsibility (PRa=1,54; CI 95% = 1,02-2,30) are associated with adherence to antihypertensive treatment.

In another study conducted in Peru[16], 51,3 % were male, the mean age was 61 years, 57,6 % declared marital status married and 51,9 % had a higher education. In the multivariate analysis of university professors with hypertension, a significant association between unhealthy lifestyle and non-control of hypertensive disease was evidenced (PR=2,538; p=0,000; CI95%=1,608-4,006). On the other hand, in the diabetic population there was a significant association between unhealthy lifestyle and non-control of type 2 diabetes mellitus (PR=5,498; p=0,013; CI95%=1,440-20,995), in addition, the prevalence of glycemic uncontrol in university professors with pathological abdominal circumference was 1,6 times higher than in people with normal abdominal circumference (PR=2,623; p=0,038; CI95%=1,057-6,508).

Therefore, the research objective is to determine the quality of life in hypertensive university professors and nursing intervention during the COVID-19 pandemic in a health facility in North Lima.

METHODS

Research type and Design

Regarding its characteristics and properties, the study is quantitative in approach, with a non-experimental descriptive-transverse methodology.[17]

Population

The total population consists of 265 participants who have been diagnosed with hypertension.

Inclusion Criteria

- Participants aged 40 and older.
- Participants who are 1 year resident in the jurisdiction of the health facility
- Participants who voluntarily agree to participate in the study.

Technique and Instrument

The data collection technique was the survey, which includes the sociodemographic aspects and the SF-36

data collection instrument to determine the quality of life of people with hypertension.

The SF-36 Questionnaire: Prepared by the RAND Corporation[18], being one of the most used instruments globally to assess quality of life in university professors with diseases such as hypertension. This is the short version of 36 items and 8 factors or dimensions (physical function, physical role, body pain, general health, vitality, social function, emotional role and mental health). Its good psychometric properties have made its use has spread globally, being already validated for our reality. Its way of punctuation is manifested in Likert-type scale, in 2 forms, polyatomic (more than 3 alternatives) and dichotomous (only 2 answer alternatives).

Finally, the reliability of the instrument was realized through the function of Cronbach's alpha obtaining a result of 0,610 (α > 0,6).

Place and Application of the Instrument

For the application of the survey, prior coordination was made with the head of the health establishment and the heads of each service where university professors with hypertension are treated, and thus be able to carry out the census that allows us to easily develop the study, in turn, information was given about the research.
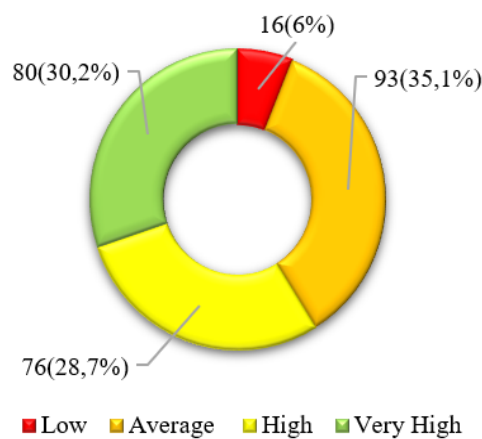
RESULTS

Figure 1. Quality of life in hypertensive university professors attending a health facility in North Lima

In figure 1, we can see that 6 % (n=16) of the participants have a low quality of life, 35,1 % (n=93) have an average quality of life, 28,7 % (n=76) have a high quality of life and 30,2 % (n=80) have a very high level of quality of life.
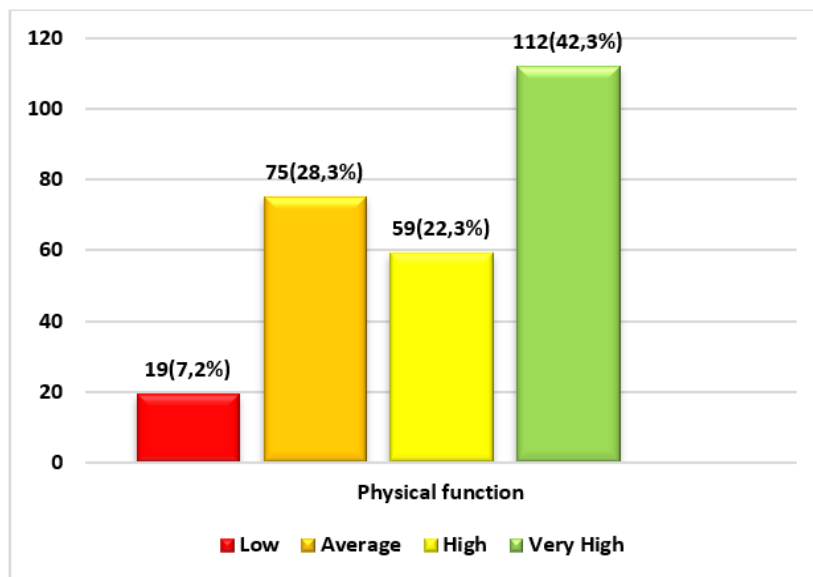

Figure 2. Quality of life in its physical function dimension in hypertensive university professors attending a health facility in North Lima

In figure 2, we can see that 7,2 % (n=19) of the participants have a low quality of life with respect to their

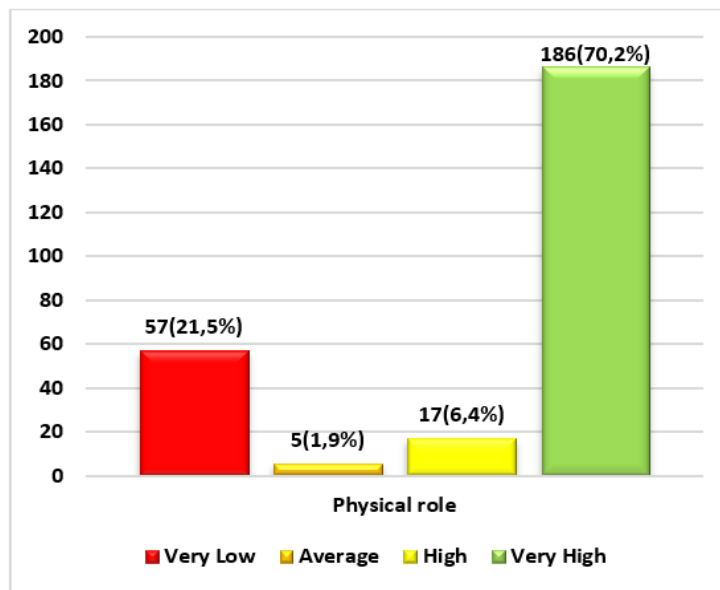physical function dimension, 28,3 % (75) have an average quality of life.

Figure 3. Quality of life in its dimension physical role in hypertensive university professors who come from a health facility in North Lima

In figure 3, we can see that 21,5 % (n=57) of the participants have a very low quality of life with respect to their physical role dimension, 1,9 % (n=5) have a mean quality of life, 6,4 % (n=17) have a high quality of life and 70,2 % (n=186) have a very high quality of life.

Figure 4. Quality of life in its dimension body pain in hypertensive university professors who come to a health facility in North Lima

In figure 4, we can see that 14 % (n=37) of the participants have a very low quality of life with respect to their body pain dimension, 9,4 % (n=25) have a mean quality of life, 10 %(n=29) have a high quality of life, 65,7 % (n=174) have a very high quality of life.

In figure 5, we can see that 14,3 % (n=38) of the participants have a very low quality of life with respect to their general health dimension, 11,7 % (n=31) have a low quality of life, 45,3 % (n=120) have a mean quality of life, 3,4 % (n=9) have a high quality of life and 25,3 % (n=67) have a very high quality of life.

Figure 5. Quality of life in its general health dimension in hypertensive university professors who come to a health facility in North Lima
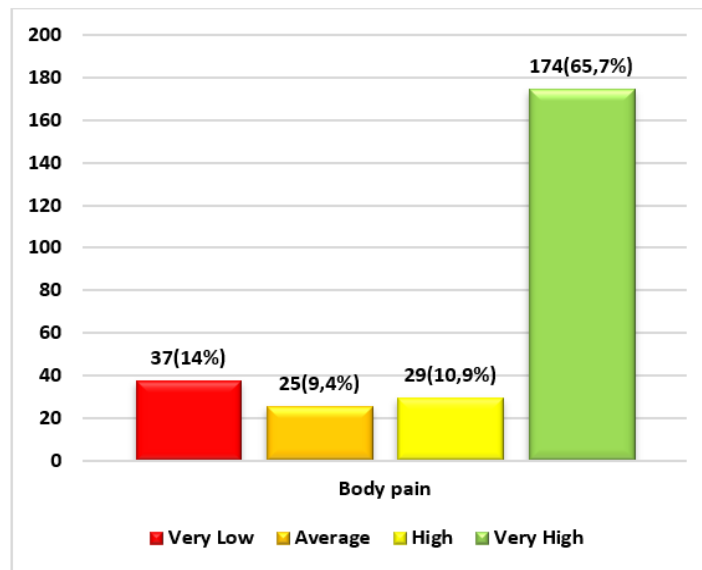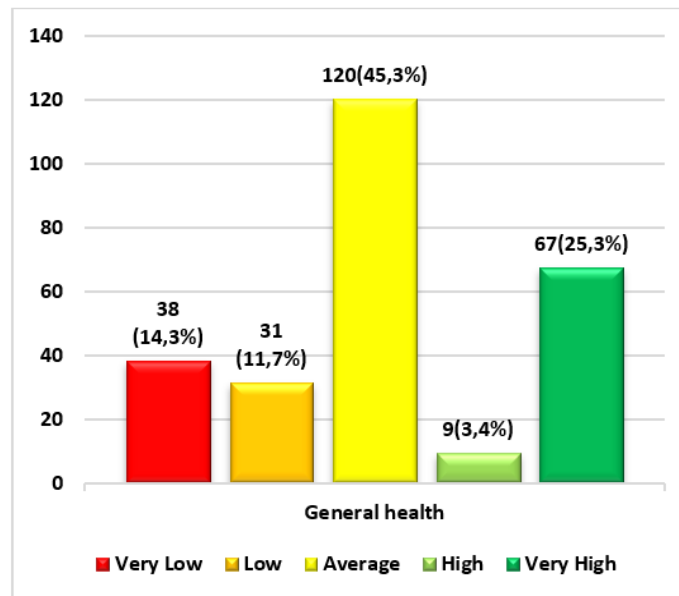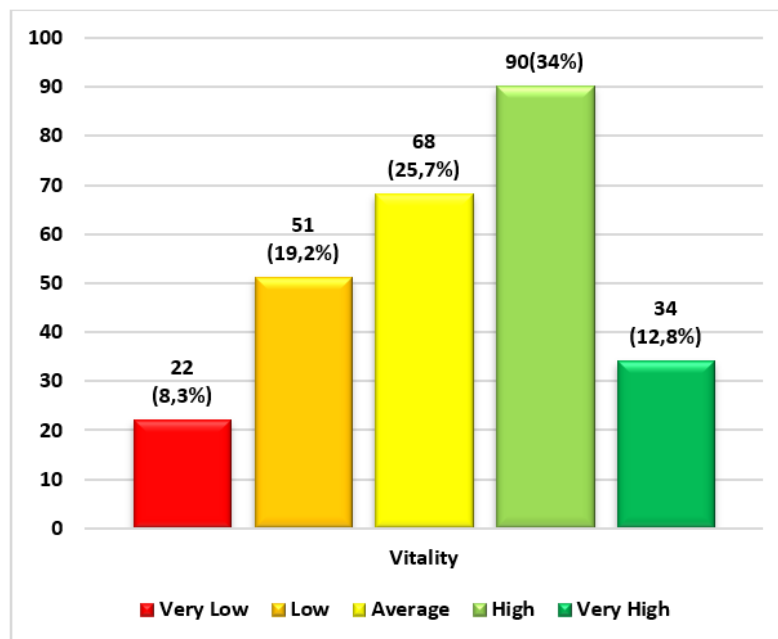

Figure 6. Quality of life in its vitality dimension in hypertensive university professors who come from a health facility in North Lima

In figure 6, we can see that 8,3 % (n=22) of the participants have a very low quality of life with respect to the vitality dimension, 19,2 % (n=51) have a low quality of life, 25,7 % (n=68) have a mean quality of life, 34 % (n=90) have a high quality of life and 12,8 % (n=34) have a very high quality of life.

In figure 7, we can see that 0,4 % (n=1) of the participants have a very low quality of life with respect to the social function dimension, 14,3 % (n=38) have a low quality of life, 24,5 % (n=65) have a mean quality of life, 33,2 % (n=88) have a high quality of life and 27,5 % (n=73) have a very high quality of life.

In figure 8, we can see that 21,5 % (n=57) of the participants have a very low quality of life with respect to the emotional role dimension, 0,8 % (n=2) have a low quality of life, 19,6 % (n=52) have a high quality of life and 58,1 % (n=154) have a very high quality of life.

In figure 9, we can see that 18,1 % (n=48) of the participants have a low quality of life, 23 % (n=61) have a mean quality of life, 52,8 % (n=140) have a high quality of life and 6 % (n=16) have a very high quality of life.

Figure 7. Quality of life in its dimension social function in hypertensive university professors attending a health facility in North Lima

Figure 8. Quality of life in its dimension emotional role in hypertensive university professors who come from a health facility in North Lima
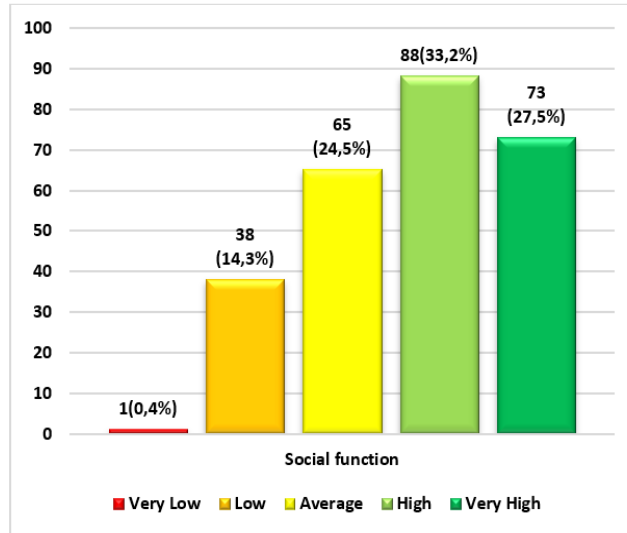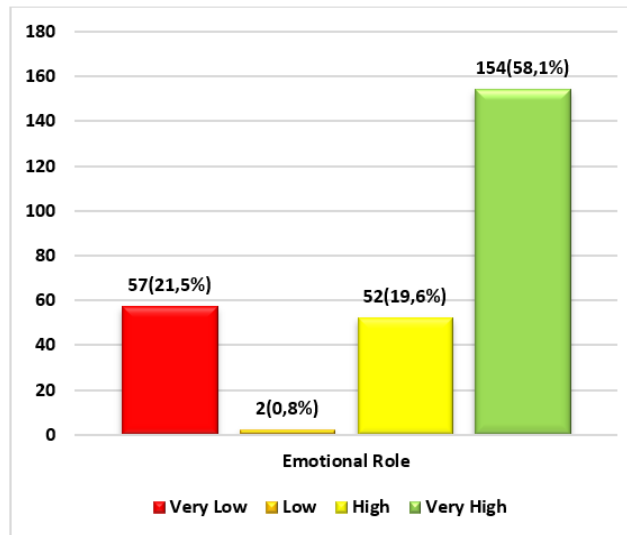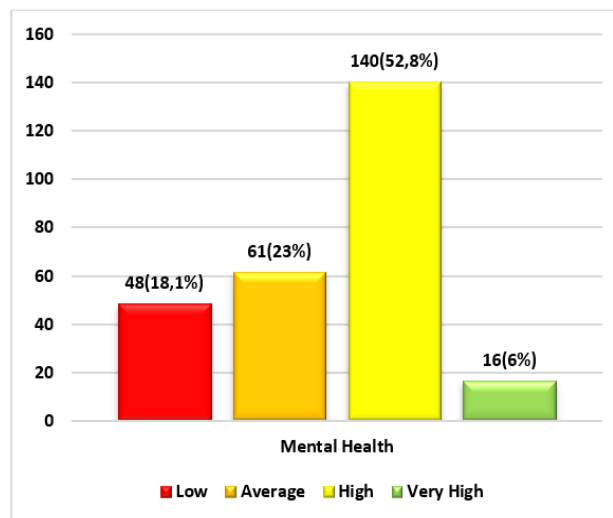

Figure 9. Quality of life in its mental health dimension in hypertensive university professors attending a health facility in North Lima

DISCUSSION

In the present research, the perspective of the same is disclosed, relating it to community health and cardiovascular health, given that hypertension is one of the prioritized diseases worldwide, since it is one of the silent diseases that over time brings serious consequences in the person.

The quality of life in people with hypertension, is currently one of the problems that today is of high priority, since it decreases the quality of life of the person diagnosed with hypertension with multiple complications either in target organs, and also relating it to the adverse reactions of antihypertensive medication, Therefore, the importance of controlling hypertension will prevent the increase in complications in the person therefore improve the quality of life in the short or long term, depends on whether the person is willing to continue with different healthy habits that are mentioned by the health professional.

In the results of the main variable quality of life, we can observe that people with hypertension have an average level with regard to their quality of life, this can be interpreted to that, people when diagnosed with this disease are not only in a situation that compromises their health, but also that they do not perform their routine activities that they used to do, given that certain factors such as unbalanced diet, excessive salt consumption, tobacco and alcohol consumption, sedentary lifestyle, overweight and obsessiveness among others, are factors that compromised the health of the person, committing him to have high rates of cardiovascular risk, and therefore present hypertension disease.

Since hypertension is a disease that increases cardiovascular risks in the person, although, before having this disease, everyone is exposed to cardiovascular risk but at lower levels, although when presenting hypertension, the levels of cardiovascular risk tend to increase, since hypertension forces the heart to work harder than usual to pump blood to the rest of the body, increasing the risk of thickening of the left ventricle leading to the risk of heart attack, heart failure and sudden cardiac death; Although, in turn, it can also cause, the obstruction of blood vessels , causing damage to the oculars blood vessels and one of the most dangerous to cause the blood vessels of the brain to burst.

Therefore, the hypertensive patient, to avoid these risks, must improve their lifestyle by opting for healthy habits, where a balanced diet, reducing salt intake, reducing alcohol consumption, performing physical activity, having a healthy weight, managing stress and having a good quality of sleep, allows the hypertensive person to improve their quality of life, therefore it decreases the cardiovascular risks that it can present.

CONCLUSIONS

It is concluded that, people with hypertension should be guided about the risks that the disease can cause and how to prevent it.

It is concluded that, it is necessary to develop promotion and prevention strategies in people with hypertension within the home

This research will be beneficial for future studies, given that hypertension is a disease in which today, it is occurring more regularly in young people and that strategies should be sought to improve lifestyle and that in the future their quality of life is not compromised.

REFERENCES

1. Bevacqua R, Perrone S. The impact of COVID-19 on pulmonary arterial hypertension. Cardiac insufficiency. 2021;16(3):79–89. Disponible en: http://www.insuficienciacardiaca.org.

2. Cubiles Z, Yun C, Ramos J, Yahyaoui R, Morales A. Pulmonary hypertension as a form of onset of multiple mitochondrial dysfunction syndrome. Anales de Pediatria. 2020;94(3):185–187. doi: 10.1016/j.anpedi.2020.03.018.

3. Regino Y, Quintero M, Saldarriaga J. Uncontrolled arterial hypertension and its associated factors in a hypertension program. Rev. Colomb. Cardiol. 2021;28(6):648–655. doi: 10.24875/RCCAR.M21000108.

4. De la Flor J, Gomez A, Alonso M. Malignant arterial hypertension with thrombotic microangiopathy or complement-mediated malignant nephroangiosclerosis, transient or permanent event? About a case. Medicina Clinica Practica. 2022;5(1):2021–2023. doi: 10.1016/j.mcpsp.2021.100278.

5. Álvarez J, Aguilar F, Lurbe E. Blood pressure measurement in children and adolescents: Key element in the evaluation of arterial hypertension. An. Pediatric. 2022;96(6):536.e1-536.e7. doi: 10.1016/j.anpedi.2022.04.015.

6. Soria A, et al. Prevalence of arterial hypertension and cardiovascular risk factors in a rural population exposed to arsenic in Argentina. Rev. Peru. Med. Exp. Salud Publica. 2021;38(4):530–536. doi: 10.17843/rpmesp.2021.384.9402.

7. Rezende R, De Assumpção D, Stolses P. Self-reported hypertension in Brazilian older adults: medication use and recommendations for control. Rev. Public Health. 2021;23(4):1–8. doi: 10.15446/rsap.v23n4.93287.

8. Santamaría L, González J, Pedraza O, Sierra F, Piñeros C. Diabetes mellitus and arterial hypertension in the progression to mild cognitive impairment and dementia: a review of the literature. Acta Neurológica Colomb. 2021;37(2):80–90. doi: 10.22379/24224022371.

9. Rodrigues R, et al. Interleukin-17A: possible mediator and therapeutic target in hypertension. Nephrology. 2021;41(3):244–257. doi: 10.1016/j.nefro.2020.11.009.

10. Moreno J. Arterial hypertension: strategies to defeat the enemy in Colombia. Rev. Colomb. Cardiol. 2021;28(6):519–522. doi: 10.24875/RCCAR.M21000076.

11. Hernández F, Larrosa J, Nacazume J, Aguirre O, Larrea N. Costo de la Hipertensión Arterial en el Perú. Rev. Fac. Med. Hum. 2021;21(3):580–587. doi: 10.25176/RFMH.v21i3.3905.

12. Martíns To, García C, Gómez J, Tejedor N. Analysis of arterial hypertension values in university professors using multi-compartment compliance aids. Aten. Primary. 2022;54(2):102251. doi: 10.1016/j.aprim.2021.102251.

13. Bica I, Costa J. Sociodemographic influence in health-related quality of life in adolescents. Acta Paul Enferm. 2020. Disponible en: https://www.scielo.br/pdf/ape/v33/en_1982-0194-ape-33-e-APE20190054.pdf.

14. Menecier N, Lomaglio D. Hypertension, overweight and abdominal obesity in adult women from the Puna of Catamarca, Argentina. Rev. Argentina Antropol. Biol. 2021;23(2):1–15. doi: 10.24215/18536387E040.

15. Cajachagua M, Vargas C, Ingles M, Chávez J. Lifestyles associated with treatment adherence in hypertensive university professors. Arch. Venez. Pharmacol. and Ter. 2021. Disponible en: https://search.ebscohost.com/login.aspx?direct=true&AuthType=ip,url,uid,cookie&db=lth&AN=152530027&lang=es&site=ehost-live%0A10.5281/zenodo.5227306.

16. Callapiña M, Cisneros Y, Guillén N, De La Cruz J. The lifestyle associated with the control of arterial hypertension and diabetes mellitus in a care center in Lima, during the covid-19 pandemic. Rev. la Fac. Med. Humana. 2021;22(1):79–88. doi: 10.25176/rfmh.v22i1.3759.

17. Fernández C, Baptista P. Research Methodology. 2015. Disponible en: http://observatorio.epacartagena.gov.co/wp-content/uploads/2017/08/metodologia-de-la-investigacion-sexta-edicion.compressed.pdf.

18. RAND Corporation. 36-Item Short Form Survey (SF-36). 2019. https://www.rand.org/health-care/surveys_tools/mos/36-item-short-form.html.

FINANCING

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.