Level of knowledge about prevention of arterial hypertension in patients without this disease

Nivel de conocimientos sobre prevención de hipertensión arterial en pacientes sin esta enfermedad

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Abstract

Introduction: Arterial hypertension is a growing problem in Peru and one of the main causes of morbidity and mortality. However, many people are not aware of the prevention of this disease. The objective of this study is to identify the level of knowledge about the prevention of arterial hypertension in patients who do not have this disease in a clinic in Lima Norte-Peru, 2021. **Methods**: The study was cross-sectional descriptive. The sample consisted of 235 patients of both sexes who attended an outpatient clinic. A questionnaire was used to measure the level of knowledge, sociodemographic and clinical data of the patient. Only the patient's current clinical history was used to measure glucose, mean arterial pressure and body mass index. **Results**: It is evident that the level of knowledge about the prevention of hypertension was medium (46.81%). Regarding its dimensions, the level of knowledge about the generalities of prevention was medium (39.15%) and the level of knowledge about the risk factors of this disease was low (42.55%). On the other hand, the majority did not receive any talk about hypertension (94.89%). The average body mass index was 27 (overweight). **Conclusions**: The level of knowledge of patients about the prevention of arterial hypertension is regular. Also, most of them are overweight. It is necessary to promote awareness of a healthy lifestyle to patients.

Keywords: Hypertension, Knowledge, Disease Prevention, Life Style, Education Nursing

Resumen

Introducción: La hipertensión arterial es un problema creciente en el Perú y una de las principales causas de morbilidad y mortalidad. Sin embargo, muchas personas no tienen concienciación sobre la prevención de esta enfermedad. El objetivo de este estudio es identificar el nivel de los conocimientos sobre la prevención de la hipertensión arterial en los pacientes que no tienen está enfermedad en una clínica de Lima Norte-Perú, 2021. **Métodos**: El estudio fue transversal descriptivo. La muestra estuvo conformada por 235 pacientes de ambos sexos que se atendieron en un consultorio externo. Se empleó un cuestionario para medir nivel de conocimientos, datos sociodemográficos y clínicos del paciente. Asimismo, el . Solo para medir glucosa, presión arterial media e índice de masa corporal se empleó la historia clínica actual del paciente. **Resultados**: Se evidencia que el nivel de conocimiento sobre la prevención de la HTA fue medio (46.81%). Con respecto a sus dimensiones, el nivel de conocimiento sobre las generalidades de la prevención fue medio (39.15%) y el nivel de conocimiento sobre los factores de riesgo de esta enfermedad fue bajo (42.55%). Por otro lado, la mayoría no recibió charla sobre la HTA (94.89%). El índice de masa corporal promedio fue de 27 (sobrepeso). **Conclusiones**: El nivel de conocimiento de los pacientes sobre la prevención de la hipertensión arterial es regular. Además, la mayoría tiene sobrepeso. Es necesario promover la concienciación sobre un estilo de vida saludable a los pacientes.

Palabras clave: Hipertensión, Conocimiento, Prevención de enfermedades, Estilo de vida, Educación en enfermería

Arterial hypertension (HT) is a public health problem that contributes to the appearance of cardiovascular diseases, kidney diseases and premature deaths all over the world[1,2]. The World Health Organization (WHO) reports that there are around 1280 million people with HT. In addition, only 46% of adults have no idea that they have this condition[1]. In 2019, in Latin America and the Caribbean, 72% of the entire population presented this disease[3]. Regarding Peru, according to the National Institute of Statistics and Informatics, from 2017 to 2021 the prevalence of hypertension in Peruvians has been increasing from 18.6% to 22.1%; being the most affected, the males (25.3%), those who live on the Coast (24.8%) and in the department of Lima (28.2%)[4,5].

HT is multifactorial. In relation to non-modifiable factors, there are genetics, sex, race, age, pathological antecedents, among others[1]. Regarding the modifiable factors, they are lack of physical activity, unhealthy diets and overweight or obesity[1,6-8]. Another risk factor for HT is insufficient knowledge of this disease[9]. Most young people who don't have or don't know that they have HT don't take importance in knowing the preventive measures of HT. Many of them have an unhealthy lifestyle and ignore the dangers that this can bring to the future[6]. The literature even mentions that most people have high levels of knowledge about preventive measures when they just present the pathology[10].

Meanwhile, if people know about HT, they can initiate a change in their lifestyle and, therefore, they'll have less risk of suffering from this disease[11,12]. According to Nola Pender, each person is responsible for their own health, specifically, in making a decision that modifies their risky behavior to a healthier one[13].

Due to the COVID-19 problem, health services were paralyzed; and left aside the activities of health promotion and the prevention of Noncommunicable diseases (NCDs)[14]. Likewise, the health professionals who were responsible for the care of patients with these diseases and the few who developed educational activities to raise awareness among the population were reassigned to COVID-19 areas[6]. This reality has demonstrated inequalities and deficiencies in the first level of care.

For all the above, the patient's knowledge about HT plays an important role in the development of a healthy lifestyle. However, health professionals contribute to this behavior, because they are the ones who provide necessary and reliable information[6]. Therefore, the present research aims to identify the level of knowledge about the prevention of HT in patients who don't have this disease in a clinic in Lima Norte-Peru, 2021.

Methods

The present study was descriptive with a cross-sectional design. The population consisted of adults aged 18 to 75 years of both sexes from a clinic in the Los Olivos district of Lima-Norte. The inhabitants of this district have a medium-high socioeconomic stratum[15]. To determine the sample size, the following formula was determined:

$$n = \frac{Z^2 * P * Q * N}{e^2 (N-1) + Z^2 * P * Q}$$

Where:
N= Population size
Z= Confidence level coefficient
P= Probability of success
Q= Probability of failure

$$\frac{1{,}96^2 * 0{,}5 * 0{,}5 * 610}{0{,}05^2 (610-1) + 1{,}96^2 * 0{,}5 * 0{,}5}$$

For this reason, a sample of 235 adults was considered.

The first part of the questionnaire covered sociodemographic data: age, sex and educational level. Likewise, clinical data such as training on HT[16], salt consumption[17], blood pressure control time[17], physical activity time[17], mean arterial pressure[18], BMI [17] and glycemia[17] were included. The last three variables were obtained from clinical history. Regarding the level of knowledge about the prevention of HT, it was measured using 16 questions and was grouped in two dimensions. The first dimension, entitled: Generalities about the prevention of HT, consisted of eight questions related to the concept, lifestyle, value and time of blood pressure measurement. For the second dimension, eight questions were used regarding the main risk factors for HT. In relation to the construction of the questions[17,19] of the questionnaire, it was validated by expert judges and through a pilot test with a Cronbach's Alpha of 0.73.

The study was approved by the Health Research Ethics Committee of the Sedes Sapientiae Catholic University. The recruitment of participants was carried out at the scheduled appointments with the doctor of the outpatient service. The questionnaire was preceded by a page explaining the informed consent statement. On the other hand, the data was analyzed using the statistical package Stata version 17 and reported using descriptive statistics (% and mean ± SD).

Results

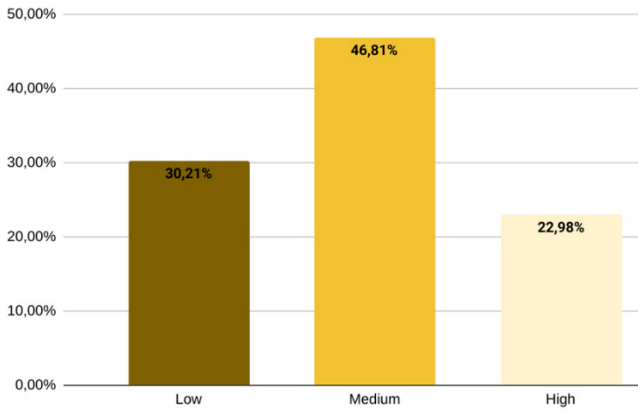
Of all the patients, the mean age was 39.29 years, 40% had technical studies, 94.89% didn't receive any talk about HT and the average body mass index was 27 (Table 1).

Table 1: Sociodemographic and clinical profile of patients

	n	(%)
Sociodemographic profile		
Age (mean ± SD)	39.29 ± 14.16	
Sex		
Male	68	28.94
Female	167	71.06
Education level		
Without studies	12	5.11
Primary	69	29.36
Secondary	51	21.70
Technical	94	40.00
Higher	9	3.83
Clinical profile		
Training on arterial hypertension		
Yes	12	5.11
No	223	94.89
Salt intake		
Less than a teaspoon	211	89.79
More than a teaspoon	24	10.21
Blood pressure control time		
Once a year	105	44.68
Once a month	83	35.32
Twice a year	38	16.17
Once a week	9	3.83
Physical activity time		
Less than 30 minutes	108	45.96
More than 30 minutes	127	54.04
Mean blood pressure (mean ± SD)	83.62 ±12.12	
Body mass index (mean ± SD)	27.86 ±4.57	
Glycaemia (mean ± SD)	90.40 ±16.71	

In addition, 46.81% had a medium level of knowledge about the prevention of HT (Fig. 1).

Fig 1. Level of knowledge about HT prevetion



Regarding its dimensions, 39.15% of all patients presented a medium level of knowledge about the generalities of its prevention (Fig. 2) and 42.55% showed a low level of knowledge about the risk factors of this disease (Fig. 3).

Fig 2. Level of knowledge about the generalities of H T prevention

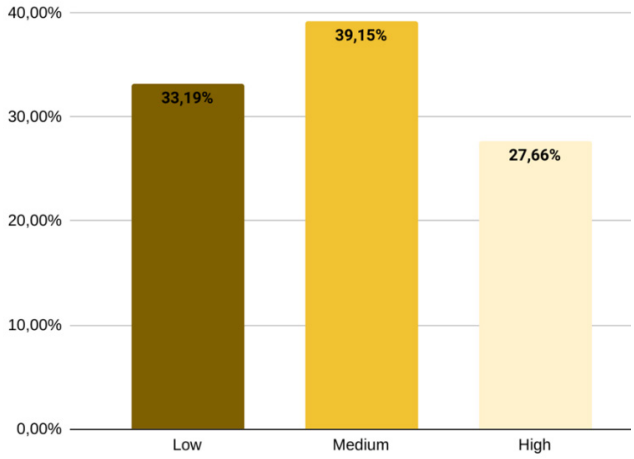
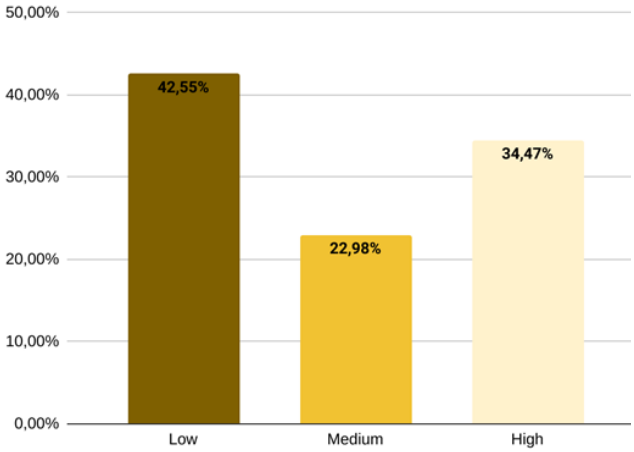


Fig 3. Level of knowledge about H T risk factors



Discussion

Of all the patients, 46.81% had a medium level of knowledge about the prevention of HT. This result differs with a study carried out in Brazil where it is shown that a large percentage of patients knew about HT; because most of them suffered from this disease and had more experience about self-care[10]. On the other hand, other studies, carried out in Mexico[19], Venezuela[12] and Peru[6], have shown that patients, specifically with HT, had intermediate knowledge about this disease.

Regarding the first dimension: Generalities about the prevention of HT, 39.15% of all patients presented a medium

level of knowledge. As for the second dimension: Risk factors, 42.55% showed a low level of knowledge. These findings differ with a study carried out in a community in Honduras that showed that a large percentage of patients identified the prevention of HT and the risk factors for HT[20]. Likewise, another research carried out in Venezuela shows that a large percentage of patients knew about the risk factors that predispose HT[12]. A plausible explanation for the high knowledge of Honduran and Venezuelan patients is because they are diagnosed with HT and have more control of this disease.

The findings of the present investigation can also be explained by the fact that 94.89% of all the patients didn't receive education about HT. Education can have a positive impact on increasing knowledge[21], but unfortunately they are not usually promoted by health personnel, even healthy patients aren't interested in participating in these NCDs training[22] and participate only when they are diagnosed with a disease[23].

An important finding is noted in the clinical profile of patients. The mean body mass index of the patients was 27.86 (overweight). In a study carried out in Brazil, it is evident that a large percentage of the participants were overweight and obese, where most of the obese were hypertensive[10]. In addition, in overweight, obesity and NCDs, no significant ailments are felt, so people are not aware that they could be suffering from HT, since they only go to the doctor or worry about their health when they notice any sign or symptom that alarms them[24]. This dilation of time results in the chronicity of a disease or that a vital organ is affected[25].

Conclusions

Although HT is a growing public health problem in Peru, the level of knowledge of patients without this disease is regular. In addition, they are overweight and have not received training about HT. These findings are important for examining which participants are at risk of developing this disease. Therefore, it's necessary for people to be responsible for their own health. Meanwhile, health professionals should be involved in the education or awareness of young patients, families and the community about a healthy lifestyle and blood pressure control to reduce the risk of developing HT. On the other hand, a large-scale investigation with a larger sample size is needed to evaluate the main variable and its social determinants.

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