

Empowerment of hypertensive individuals and families in disease management: a community nursing intervention

Soraia Nobre Figueiredo¹

 orcid.org/0000-0001-7857-6614

Maria Jorge Brites²

 orcid.org/0000-0002-7650-0066

José Edmundo Sousa³

 orcid.org/0000-0003-2136-4471

¹ Master. Hemato-oncology Service, Centro Hospitalar e Universitário de Lisboa Central, Lisbon, Portugal.

² Master. Family Healthcare Unit Ponte, ACeS Almada-Seixal, Almada, Portugal.

³ PhD. PhD Professor of the Lisbon School of Nursing, Adjunct Professor, Department of Community Health, Lisbon, Portugal.

Introduction

Hypertension is a chronic disease with high national prevalence, being the main risk factor for cardiovascular brain disease. Thus, training for disease management is essential for disease control and eviction of complications. By determining the level of knowledge of the person and family about hypertension, it was possible to structure the intervention aimed at promoting autonomy for conscious decision-making, adopting healthy lifestyles and active participation in their health project.

Objective

Empower hypertensive people aged 45-65 years and family, enrolled in a Family Healthcare Unit in the intervention area of the Health Centre's Cluster Almada/Seixal.

Methods

The analytical cross-sectional observational study was based on the methodology of Health Planning, underpinned by the theoretical framework of Dorothea Orem's Nursing Self-Care Model. A questionnaire was designed and applied to conduct the Situation Diagnosis for the sociodemographic characterization of the sample and to identify the behaviors for disease management. The sample was composed using the purposive sampling technique. A favorable opinion was previously obtained from the Ethics Committee for Health of the Regional Health Administration of Lisbon and Tejo Valley (ARSLVT) under reference - 5043/CES/INV2022.

Results

The situation diagnosis revealed a deficit of knowledge about the disease and its management, as well as a deficit of self-care, which compromises the quality of life of the participants. With the prioritization of the problems, health education was selected as a strategy. After the community intervention, 70% of the participants assess and record daily BP values; 100% of them correctly identify risk behaviors for worsening hypertension; 63% of the participants practice regular physical activity; 87% of the participants report having reduced the daily intake of salt; and, 100% of family members identified two areas in which their family member needs more support, being the most frequent, encouragement for physical activity and restriction/substitution of salt in food.

Conclusion

This project was an important contribution to the empowerment of the hypertensive person and family to manage the disease, since after its completion there was an increase in knowledge of the participants, as well as behavioral changes associated with healthy lifestyles.

Keywords

Empowerment; Health management; Treatment Adherence and Compliance; Hypertension; Nurse.

Corresponding author

Soraia Nobre Figueiredo

E-mail: soraia.nobre87@gmail.com

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Introduction

Arterial Hypertension (HT) affects one billion people worldwide, accounting for 7.6 million premature deaths worldwide. It is the most prevalent risk factor for cardiovascular disease (CVD), causing approximately 14% of all deaths worldwide, and 143 million disability-associated life years [Disability Adjusted Life Years (DALYs)].^{1,2} In Portugal, according to data from the Instituto Nacional de Saúde Doutor Ricardo Jorge (INSA)³, resulting from the National Survey with Physical Examination (INSEF)³, the national prevalence of hypertension is 36%. It constitutes a public health problem, given its high prevalence in the adult population, low levels of therapeutic adherence and often late diagnosis⁴. It is a chronic non-transmissible disease, which consists of the sustained elevation of systolic blood pressure values equal to or greater than 140mmHg and diastolic pressure values equal to or greater than 90mmHg.^{5,6} Its installation is progressive, which is why, initially, its signs and symptoms are not perceptible, however its continuous increase over time generates lesions in the vessels, weakening them, which may later give rise to aneurysms, cerebrovascular accident (CVA), heart failure (HF), acute myocardial infarction (AMI), renal failure, among others¹. Its symptoms are nonspecific and easily associated with other causes, leading to late diagnosis⁴. It is classified into three levels of severity: (1) Grade 1 - mild arterial hypertension (140-159/ 90-99 mmHg); (2) Grade 2 - moderate arterial hypertension (160-179/100-119 mmHg); and (3) Grade 3 - severe arterial hypertension (180/110 mmHg), according to the etiology it is classified as: essential, primary or idiopathic hypertension, the most frequent (unknown cause); and secondary hypertension, less frequent, derives from an associated pathology (potentially treatable or not), such as, for example, kidney disease, obstructive sleep apnea syndrome; obesity; among others^{4,5,6}. Hypertension is a multifactorial condition, according to the Portuguese Society of Hypertension (SPH)⁷ the risk factors for its development are, essentially, uncontrollable genetic factors, related to ethnicity, age, history familiar; behavioural factors, linked to unhealthy lifestyles, subject to modification; and socioeconomic factors such as education level, low family income and poor housing conditions. As for potentially modifiable risk factors, the World Health Organization (WHO)¹ identified overweight and/or obesity, smoking, sedentary lifestyle, excessive consumption of alcoholic beverages, excessive intake of foods high in fat and salt. In Portugal, about two thirds of hypertensive people do not know that they are, and of those who are diagnosed, only 11% have their hypertension controlled³.

Amorim et al.⁸ suggest that the management of hypertension should mostly be the responsibility of primary health care, thus in this sense, urging the need to identify effective strategies for managing the disease, preventing situations of disability, and reducing the quality of care. life, which lead to a high expression in the consumption of health services, medications, and hospitalization episodes¹.

The current rules of the Directorate-General for Health (DGH)⁹ dictate that “the person with HT must have the opportunity to make informed decisions about their treatment”(p.14) and that for this the treatment should “be culturally appropriate and accessible”(p.4), as well as allowing “family members to be involved in decisions about patient care and indicated treatment”.^{9(p.5)} Since it is fundamental to involve the person and family in the therapeutic process, we are guided by the assumption that the better informed they are about the disease, therapy, and healthy lifestyles, the greater the autonomy in managing the disease, achieving better results of health⁴. Aligning the aforementioned assumptions with the National Health Plan (NHP) 2021-2030 “the complexity of health problems and their determinants, and their dynamics of interpenetration and dependence require us to move (...) to multidimensional approaches”,^{10(p.36)} they choose “Education for (Self)Management of chronic illness” as one of the intervention strategies aimed at health determinants.^{10(p.182)}

In the field of chronic disease (CD) management, the differentiated intervention of the Specialist Nurse in Community Nursing (SNCN) aims at the systematic and cohesive training of the person and family for the management of chronic disease.¹¹ In order to promote a practice based on the most current scientific evidence, as Ferreira et al.¹² points out, it is essential to promote adherence to the therapeutic regimen, especially with regard to physical activity and dietary care, and the CEE must act on these determinants to increase the effectiveness of HT disease management. Thus, and according to the studies consulted, regarding the most effective nursing interventions for training hypertensive patients and their families, the potential of Health Education (HE) in groups or individually stands out, with a focus on changing behaviours in everyday life, monitoring, promoting health literacy, person-centred care, and family involvement.

Objective

Train hypertensive people between the ages of 45 and 65 and their families to manage the disease, enrolled in a Family Health Unit (FHU) in the intervention area of the Grouping of Health Centres (ACeS) Almada/Seixal.

Method

An analytical cross-sectional observational study was carried out,¹³ developed according to the Health Planning methodology (Tavares, 1990)¹⁴, based on Orem's Self-Care Model (2001)¹⁵, aiming at predetermining a set of actions to achieve the expected results.^{16,17} Planning, in health, “is a continuous process of forecasting resources and necessary services, to achieve certain objectives according to the established order of priorities, allowing to choose the optimal solution(s) in several alternatives; these choices take into account current or foreseeable future constraints”.^{14(p.29)} It consists, then, of a continuous dynamic process, with several stages that provide for

methodological rigor. The community intervention was developed in the area of influence of ACeS A-S. The population of this geographical area has great cultural diversity, low level of education and the highest unemployment and morbidity rate in ACeS A-S.¹⁷ With an illiteracy rate of 5.21%, it is the highest in the country. It has an unemployment rate of 19%.^{17(p.13)} According to PLS A-S17 regarding the priority population groups, "(...) the analysis of the health status of the population showed the high risk of premature death of the population residing in the municipality of Almada, namely associated with ischemic heart disease(...)"^{17(p.13)} As diseases of the circulatory system are the most frequent cause of proportional morbidity and mortality in all ages and genders within the area of influence of ACeS. The project population is all individuals enrolled in the FHU, the target population being defined as users enrolled in the USF with a diagnosis of uncomplicated hypertension in the age group between 45 and 65 years old, enrolled in the FHU, which translates into in a total of 113 people. The following inclusion criteria were defined: population diagnosed with uncomplicated hypertension (coded with the ICPC-2 code K86 in the MedicineOne computer system); in the aforementioned age group; and, who voluntarily agreed to participate in the study. The sample was constituted using the technique of convenience or intentional sampling, composed of people with the aforementioned diagnosis and age group, who had a surveillance consultation with the family doctor and/or nursing consultation in the period between June 8th and 30th, 2022, and of these, those who made themselves available and gave their informed consent to participate in the collection of information. Integrated by thirty participants. A questionnaire was constructed and applied, which is structured in three parts: 1st part - sociodemographic characterization; 2nd part - clinical situation and lifestyle and 3rd part - The Medication Adherence Reasons Scale (MARS)¹⁸. The scale consists of seven questions structured in order to be able to synthesize the habits and beliefs of adherence to treatment medicinal product, was created by Morisky, Green and Levine (1986) translated, adapted and validated for the Portuguese population and culture, by Delgado and Lima¹⁸, who were requested and obtained authorization for its application. To ensure an ethically sound intervention, authorization was requested to carry out the project from the USF Coordinator and Mr. Director of ACeS Almada/Seixal, having been granted. Obtained a favourable opinion (5043/CES/2022) from the Health Ethics Committee (HEC) of the Regional Health Administration of Lisbon and Tagus Valley (ARSLVT). After the favourable opinion of HEC ARSLVT, the participants were informed about the methodology, purpose and objectives of the project, and the questionnaires were applied to all participants in the sample, ensuring that they completed and signed the informed consent. Ensuring that they understand the risks and benefits of their participation, their rights, including the right not to participate or to withdraw from participation at any time without prejudice. A duplicate informed consent form was given to each participant. The questionnaires

were self-completed, with the exception of situations in which the participants needed help to complete them, due to illiteracy and/or vision changes, being replaced in this task by one of the project's researchers. However, aiming to minimize data bias, the questionnaires were completed at the beginning of the nursing consultation, and those that were completed with assistance, the questions were read as written in the questionnaire. The collected data was coded, ensuring anonymity and confidentiality.

The empirical material, resulting from the application of the data collection instrument, was treated using descriptive statistics analysis, through the SPSS software – Statistical Package for the Social Sciences (28.0.0.0 version).

Results

Participants have a mean age of 56.27 (SD=6.38) years, 47% of participants are male. With regard to the constitution of the household in the sample, 34% of respondents live in a nuclear dyad type family after the children leave, 23% in a nuclear family with spouse and children, 13% are single parents and 30% refer to living alone, the reason being most frequently, the death of a spouse. It was asked if there is any other element in the household with HT, 47% answered yes, referring to being the spouse, 60% of the participants are professionally active, in different professional areas. Regarding the monitoring of Arterial Pressure (AP) values, 66% of the respondents only evaluated it in a biannual consultation at the FHU. Regarding the practice of physical exercise, 87% of the participants reveal high levels of physical inactivity and sedentary lifestyle. They were asked if they had changed their lifestyle habits after the diagnosis of HT, 73% reported not having changed, and the 27% who answered affirmatively, were asked which habits had changed, and these responded to the reduction of salt in their diet, not specifying what is the amount of salt ingested previously, nor the current reduction, the questionnaire does not allow us to quantify the number of grams ingested per day.

Regarding the control measures they use in their daily lives, 80% of the participants mention only complying with the prescribed medication without associating with other control measures. As for salt restriction in their daily diet, 53% reported not restricting it. Regarding family support for the implementation of measures to control their HT, 70% reported not having support from their household. Most participants do not consider changing lifestyle habits as a benefit in controlling hypertension. The MAT¹⁸ scale was also applied to identify medication adherence behaviour, since 80% reported only complying with the medication as a measure of hypertension management. Based on the authors' recommendation, 39% of the participants do not meet all the criteria for adherence to treatment. The answers to the questions that make up the scale were analysed separately, and the weaknesses in the adherence criteria were listed, namely: forgetting to take, delay in taking the time, treatment abandonment due to improvements and abandonment due to the end of the

medication. On average, study participants were overweight, with an average weight of 75.46 kg, in relation to personal history, 60.0% of non-insulin dependent Diabetes Mellitus and 80% of participants suffer from dyslipidaemia.

After surveying the problems and consequent needs, nursing diagnoses were prepared according to the International Classification for Nursing Practice (ICNP)¹⁹: (1) health surveillance [on HT] compromised; (2) knowledge about compromised physical exercise regime; (3) knowledge about the committed dietary regimen; (4) knowledge about the process of changing committed behaviours; (5) knowledge [about HT] compromised; (6) compromised family knowledge about the disease; (7) compromised adherence to the therapeutic regimen; (8) compromised self-care; (9) compromised family capacity to manage the regime; (10) risk of impaired cardiovascular function. Thus, defining the starting point from which the benefit of the intervention will be evaluated¹⁴. The prioritization of real health needs was carried out with the support of experts, according to the Hanlon Method. The method was applied in an adapted way to the sample, considering the criteria set out by Tavares¹⁴: (1) Amplitude/Magnitude of the Problem; (2) Gravity; (3) Effectiveness of the Solution and (4) Feasibility of the Project classified with the acronym PEARL (P- Relevance, Economic Feasibility, Community Acceptance, Resources and Legality). According to the results obtained, the objective and the time limit of the project, we intervened in the problems that obtained the highest score, namely, compromised health surveillance; family knowledge about the compromised disease; compromised self-care; knowledge [about HT] compromised; knowledge about the process of changing committed behaviours; knowledge about committed exercise regime; and knowledge about the committed dietary regimen. We continued with the setting of objectives, formulating the general objective - To train hypertensive people and their families enrolled in the FHU to manage the disease, from October 2022 to January 2023 and the specific objectives for the target population in the same time period: (1) train hypertensive people and their families on the importance of health surveillance; (2) train the hypertensive person and family to manage the exercise regimen; (3) train the hypertensive person and family to manage the dietary regimen; (4) enable the hypertensive person and family to identify risk factors; (5) train the person and family on the health gains of changing behaviours in the control of hypertension; and, (6) involve the family in the process of managing the illness of the hypertensive family member. With regard to the selection of strategies, it was essential to rethink the CD management concept. According to WHO²⁰, the costs attributable to CD for health systems worldwide are equivalent to 60%-80% of total expenses, revealing the burden and problems of financial sustainability for health systems. In Portugal, according to INSA³ data, around 43.9% of the Portuguese population suffers from CD. Facts that highlight the importance of implementing strategies that promote CD management, as a guarantee of clear gains in health with

positive repercussions in terms of health costs and quality of life²⁰. By definition, the concept of CD management consists of a system coordinated interventions aimed at the individual, group or population, through the implementation of strategies and/or creation of programs that integrate the most recent norms and guidelines, for the promotion of autonomy for the self-care of the person with CD²¹.

Considering that the community intervention developed corresponds to the level of secondary prevention, aiming to empower the person and family to make autonomous decisions, increasing their motivation to change behaviours and promote the ability to manage the disease, we combine a set of strategies health promotion, such as health education, involvement of the person and family and follow-up. In this process, possible barriers to existing learning were taken care of and thus implemented strategies to facilitate learning and to motivate and encourage the participation of individuals and families. The activities carried out allowed the achievement of the defined objectives, and aimed to provide adequate follow-up to the participants, creating an environment that promotes the acceptance of CD, motivating them to acquire knowledge, change behaviours and manage the disease. As methods we used group discussion, analogies, lecture, demonstration and practice, questions, and answers.

The group sessions were an opportunity to encourage participants to identify strategies, share experiences and identify.

We also individually monitored the person and family in the context of nursing consultations and home visits of participants who revealed some degree of dependence according to the Barthel scale assessed in Sclenic[®], using Figueiredo's family assessment model²², more specifically in the functional domain (caregiver role). The activities included a walk, ludic-pedagogical games, video exhibition, AP self-assessment training, and the transmitted information was compiled and distributed in the form of informative leaflets.

In order to evaluate the objectives, activities and indicators of the community intervention, the knowledge obtained by the participants regarding the addressed themes was considered, in line with the defined objectives and result indicators. By weighting: the responses of the participants after the end of the individual educational process in an HT nursing consultation; answers to the questionnaires applied after the end of the HE sessions; and finally, after the end of all activities, a final questionnaire was applied consisting of some questions extracted from the data collection instrument and questions that intend to measure the acquisition of knowledge and the possible change of behaviours for the management of the disease. Its analysis and comparison with values obtained in the DS phase allows inferring that all objectives were achieved as shown in Table 1. As for the changes obtained with the intervention, we analysed using descriptive statistics, the data obtained with the final questionnaire, which was presented in tables 2, 3, 4, 5 and 6.

Chart 1 – Evaluation of the result indicator, referring to the defined operational objectives

Objective: 30% of participants evaluate and record their blood pressure values	
Result Indicator	Value obtained
% of participants who regularly assess and record blood pressure values	70%
Objective: 70% of participants and their families who were present at the activities identified risk behaviours	
Result Indicator	Value obtained
% of participants who identified risk behaviours after EC.	100%
Objective: 50% of the participants who were present at the activities identified the importance of practicing 30 minutes of physical activity in a row, daily or at least three days a week	
Result Indicator	Value obtained
% of participants who consider it important to perform regular physical activity	100%
Objective: 50% of the participants who attended the activities would restrict salt intake in their daily diet	
Result Indicator	Value obtained
% of participants restricting salt intake	87%
Objective: 70% of the participants who attended the activities could identify options for replacing salt in their daily diet.	
Result Indicator	Value obtained
% of participants who correctly identify options for replacing salt in their diet, through the 2nd HE assessment questionnaire “control your heart, reduce salt in your diet”	100%

Data referring to changes in behaviour were also analysed, which we present in a table, contrasting

the initial data and those obtained with the intervention.

Chart 2 – Comparison of the variable frequency of assessment and recording of AP in the 1st and 2nd moments

How often do you measure and record your Arterial Blood Pressure?	1 st Moment (July 2022) Diagnosis of situation f=30		2 nd Moment (January 2023) Final evaluation f= 30	
	f	%	f	%
Always	0	0%	21	70%
Often	0	0%	9	30%

Chart 3 – Comparison of the variable HT control measures in the 1st and 2nd moment.

What kind of measures are taken to control HT	1 st Moment (July 2022) Diagnosis of situation f=30		2 nd Moment (January 2023) Final evaluation f= 30	
	f	%	f	%
Just medication	24	80%	0	0%
Decreased fat intake	1	3%	7	23%
Medication and reducing salt intake	5	17%	23	77%

Chart 4 – Comparison of the physical activity practice variable in the 1st and 2nd moments

Practice physical activity	1 st Moment (July 2022) Diagnosis of situation f=30		2 nd Moment (January 2023) Final evaluation f= 30	
	<i>f</i>	%	<i>f</i>	%
Yes	4	13%	19	63%
No	26	87%	11	37%

Chart 5 – Comparison of the dietary salt restriction variable in the 1st and 2nd moments

Salt restriction in food	1 st Moment (July 2022) Diagnosis of situation f=30		2 nd Moment (January 2023) Final evaluation f= 30	
	<i>f</i>	%	<i>f</i>	%
Yes	14	47%	26	87%
No	16	53%	4	13%

Chart 6 – Comparison of the family support variable in the 1st and 2nd moments

Family support to follow HT control recommendations	1st Moment (July2022) Diagnosis of situation f=30		2nd Moment (Janeiro 2023) Final evaluation f= 30	
	<i>f</i>	%	<i>f</i>	%
Yes	9	30%	24	80%
No	21	70%	6	20%

After analysis and evaluation, all the objectives were reached, as well as the pre-established values, regarding the process and activity indicators. The results reflect the acquisition of knowledge by the participants, as well as the acquisition of skills that promote behaviour change, adopting healthier lifestyles.

Discussion

The increase in CD worldwide is a multifactorial phenomenon, however it is essentially related to the lifestyles and consumption patterns of today's society. Approximately half of people with CD develop comorbidities associated with the difficulty in managing the disease^{1,23}. This fact points to the importance of adopting health promotion strategies in an approach that promotes disease management.

Hypertension is a CD with a high national prevalence^{3,25}, associated with non-adherence to the therapeutic regimen.^{1,25,26} Inappropriate behaviours and lifestyles are generators of comorbidities that lead to loss of quality of life and high economic impact, social and family life, as well as the increase in premature deaths^{27,28,30}. Thus, the central importance of the SNCN in the process of

empowering the person and family to develop skills that facilitate decision-making and the implementation of self-care behaviours emerges, as stated by Silva et al.²⁹.

In the community intervention developed, the main needs identified in the SD stage corroborate what has been verified in other studies developed in Portugal^{30,31,32,33}, where the need to promote nursing interventions for guidance, knowledge acquisition, skills development, and instrumentation in self-care. Thus, according to the defined objectives, HE was used as a strategy, aiming at training for the management of the disease of the hypertensive person and family. As mentioned by Oliveira et al.,³⁵ in their study, HE as a strategy to promote adherence to healthy lifestyles for the control and management of hypertension is the most effective strategy with regard to changes in lifestyles, having found a significant change regarding salt intake, physical activity, and blood pressure control. The same is reaffirmed by Gama et al.³⁶ in the bibliographic review, where HE is highlighted as the most effective intervention for increasing levels of knowledge, adherence to recommendations and healthy lifestyles of hypertensive people.

Thus, in relation to the sample, the gender variable deserves special attention, because although there are no significant differences in prevalence between genders within the sample, there are different self-care behaviours, with female participants being more participatory in the activities carried out, a fact that we relate to the different perception of their health condition, greater demand for health services, as well as greater compliance with the recommendations of health professionals, as verified in the study developed by Motter et al.³⁷

As for the level of education, most of the participants have low levels of education, as in the study by Ribeiro³², corroborating the data expressed in the INSEF³, where a higher prevalence of hypertension is verified in individuals with a lower level of education. Regarding the SD phase, poor monitoring of Arterial Pressure (AP) values was verified, most participants only evaluated the tension in the context of a consultation at the FHU or occasionally at the pharmacy when associated symptomatology (dizziness, headache, or tinnitus), revealing little knowledge about the disease, as well as skills for monitoring and evaluating AP at home. Recent studies highlight the importance of monitoring AP in disease management.^{27,30,36} A high rate of sedentary lifestyle and physical inactivity, with 87% of participants not practicing regular physical activity, a value higher than the values described in the Report on the point of the global situation of physical activity³³, 27.5% of adults do not comply with the levels of physical activity recommended by the WHO³⁴. With regard to salt restriction in their daily diet, 53% refer not to restrict it, a value that coincides with national studies, as in the priority program for healthy eating.^{39,41,25}

With regard to changing lifestyle habits after the diagnosis of hypertension, most participants did not make any changes, a fact similar to the results of recent studies, where participants prior to the intervention had not autonomously, following the diagnosis, changed lifestyle habits^{35,40}, which we relate to the lack of knowledge about the disease, its course and management. With regard to the control measures they use in their daily lives to manage high blood pressure, at the time of the SD, most participants were only complying with the medication prescribed by the doctor, not adhering to the non-pharmacological measures for controlling high blood pressure²⁵, data that coincide with the study by Ferreira et al.¹³; Pereira³⁸; Dantas et al.⁴⁴, where the rate of adherence to control measures varies between 16.9% and 49.8%.

Regarding family support for the implementation of measures to control their hypertension, 70% of participants deny having family support for controlling hypertension, revealing the family's non-involvement in the disease management process. Thus, once again highlighting the need to promote adherence to the therapeutic regimen, increasing the quality of care provided to the person and the family, and thus, consequently, health gains^{32,44,46,46}.

The results obtained after the intervention reveal the success in achieving the defined objectives, corroborating

the scientific evidence consulted, which highlights the HE as a fundamental resource in the therapeutic intervention of nurses, to increase knowledge and change behaviors.^{36,38,42,43,44,45}

The implementation of the educational process, in the context of a nursing consultation, HE group sessions and home visits revealed a high potential in the acquisition of knowledge and consequent motivation for changing behaviors³⁰. It was possible to promote the strengthening of the bond between the professional of health, the person, and the family, encouraging the development of educational processes aimed at the person and the specificities of each family, which, as a social support for the hypertensive person, are crucial for the implementation and maintenance of healthy habits.^{29,30,43,45}

In the FHU where the community intervention took place, an HT nursing consultation (CEHTA) has not been implemented, so a guide to good practices for the CEHTA was developed and applied in a nursing consultation, which includes the most recent protocols and guidelines for management. HT, which made it possible to guide the intervention in a way adapted to the person and family, guiding the educational process in each consultation to the needs felt, avoiding redundant teaching,^{29,35,43} stimulating adherence to the recommendations for the management of HT, through the counselling and monitoring.^{22,30,42}

Therefore, we believe that the activities carried out, the distribution of informative material, the on-site training of AP self-assessment, the supply of instruments (label decoder) that facilitate the interpretation of the amount of salt in each food at the time of its purchase and the ludic games, allowed establishing a positive correlation between the educational process developed, adherence to recommendations regarding lifestyle and the reduction of risk factors related to the disease, as an example of this we have the increase of participants who evaluate and record blood pressure values frequently, who decreased daily salt intake and increased regular physical activity.

In short, the SNCN, through specific skills⁴⁸, promotes the process of empowering the person and family to manage the disease, increasing their involvement in the health project, fostering an attitude that promotes autonomy for informed decision-making. The HE strategy contributed to improving the health conditions of the group, increasing health literacy, involvement and identification, strengthening the therapeutic relationship, improving the quality of care.^{36,45,49}

The results obtained allow us to state that the planning of the appropriate intervention for the population, the HT nursing consultation, home counselling and partnerships that reinforced the transmission of information about the dietary regimen, physical activity, health surveillance, self-care and family involvement, promoted greater adherence to the therapeutic regimen, as well as increased the change in the behavioural pattern.

During the course of the community intervention, some limitations were identified, delaying its initiation and

development, given the delay in responding to the various requests necessary to ensure ethical procedures. In an initial phase, there were several requests for authorizations and opinions that could not be requested simultaneously, the request for an opinion was first submitted to the TIN of ACES A-S and only after the response with a positive opinion, was it possible to submit it to the CES of ARSLVT), the which conditioned the beginning of the application of the data collection instrument. After the opinions, participants were called who, given their age group, are professionally active, which made it difficult for them to be available to attend the FHU, leading to a sample of thirty participants in a universe of one hundred and thirteen. However, it was possible and extremely important to survey the real needs of the population, as well as its contribution to the proper development of community intervention.

Conclusions

The increase in life expectancy, combined with changes in the lifestyles of the population, generates an increase in CD.³⁹ The high prevalence of hypertension at national level leads to high costs, at economic, social, and individual levels⁴⁰, which makes it urgent to intervene. Hypertension must be approached considering the most effective nursing interventions, through evidence-based practice, considering the evolutionary course of the disease, in order to obtain health gains. For this reason, the intervention of the SNCN⁴⁸ is fundamental, which in its daily practice resorts to partnerships with other professionals, as well as with the person and family, promoting their active participation in the whole process. The person with CD and their family need systematic monitoring given the specificity of their needs^{29,42,45,46} through an integrated approach, considering the changes they manage to make, the necessary adaptations, internal resources, support networks and life situation.

The community intervention developed, supported by the Health Planning methodology and the theoretical framework of Orem¹⁵, contributed to the training of hypertensive people and their families to manage the disease in a FHU of ACeS A-S, constituting a contribution to practice by highlighting the benefit of the SNCN intervention in the process of training hypertensive people to manage CD, leading to an approach centred on the person and family with a focus on avoiding complications, maintaining quality of life and involving the family. It highlights the contribution of the SNCN's intervention in improving the population's health through interventions based on Health Promotion and Education. It reveals that HE strategies within the scope of CD management mobilized by nurses enhance autonomous and informed decision-making by hypertensive people in their daily lives with adequate family support. It also consists of a contribution to training in the sense that it encourages the development of educational competence integrated into the curricula of the nursing course, with the mobilization of individual

resources in clinical practice. Considering that, for this purpose, training should begin in the degree course, deepening in specialization courses, with the transmission of theoretical assumptions and research results, which allow the development of specific skills in interpersonal relationships and knowledge, guiding conduct, and dissemination of relevant information to the target audience.

Finally, it constitutes the same as a contribution to research, as scientific evidence, on the benefit of interventions in the context of nursing consultation, HE sessions and home visits, in the process of training the person and family for the management of CD.

With the end of the community nursing intervention, most of the project participants increased their knowledge regarding the course of the disease, measures to control and monitor HT and a healthy lifestyle adapted to their condition, revealing behavioural changes in their daily lives.

Regarding the theoretical framework, it was decided to use the support-education system, recommended in Orem's Self-Care Deficit Theory¹, which proved to be adequate and essential for the acquisition of knowledge and training of the person and family for conscious and informed decision-making the management of the disease. This system presupposes the association of effective help techniques with support, provision, guidance, and teaching, where the person's requirements are related to decision-making, behaviour control, acquisition of knowledge and strategies, through learning behaviours, becoming a self-care agent. As for the person's and family's help needs, they were related to decision-making, behaviour control and the acquisition of knowledge and development of competences, where training for the management of the disease of the intervenients was stimulated. Since, Orem¹⁵ sees self-care as a skill that can be trained and thus improve the health status of the person, group, or community.

With the implementation of the community intervention, it was possible to promote the training of the participants, the HE sessions were a fundamental strategy to promote the self-care of the person and family, favouring the identification of peers, sharing of knowledge, experiences, and the acquisition of knowledge. The evaluation, as a stage of the methodology, indicated the success of the intervention through process, activity, and result indicators, allowing the identification of effective health gains. There was an increase in knowledge and changes in self-care behaviours, however, there is a discrepancy between knowledge and its consistent operationalization in everyday life, which we intend to reduce with the implementation of the HT nursing consultation, promoting the effectiveness of teaching moments, commitment to the process of change, ability to self-care and health literacy. Such as, home visitation, which, as we have seen, was a very successful strategy, as an assistance tool, based on the care plan for training related to disease management, enabling the

educational process, on-site training and family interaction, the family is the first social unit where the individual is inserted and has a key role in maintaining and encouraging the management of chronic illness. The promotion of healthy behaviours and lifestyles cannot be decontextualized from the socioeconomic and political environment where the person and family are inserted, thus highlighting the importance of the intervention of the SNCN⁴⁷, given the proximity to the community, it identifies health problems, having a role primordial in the support and monitoring of the community, through its specific interventions that lead to the improvement of the provision of care, with the implementation of projects that respond to the identified needs.

Thus, ensuring the continuity of this project, the results obtained were presented to the FHU multidisciplinary team, the pedagogical material developed was given to the nursing team, enabling the continuity of its application. During the project, the nursing consultation, based on the best practices guide that compiles all the national norms and policies regarding the management of the disease and the training processes at home, revealed an added value for the results obtained, all the material that allows implementation and operationalization, allowing, in addition to continuity, improvement with the introduction of new strategies and interventions, which allow monitoring, counselling, and teaching. And as for the home visit, the in loco training of the hypertensive person and family, focusing attention on family interaction.

Despite the evidence that proves the management of hypertension through effective non-pharmacological and/or pharmacological measures, the control rates of this disease remain low⁴¹, constituting one of the greatest global challenges, highlighting the relevance of the study developed, since, the health education process, the established partnerships and the involvement of the multidisciplinary team made it possible to increase the knowledge of both the professionals where it was possible to validate the relevance of the implemented strategies and activities, and the participants in terms of health literacy and skills development for disease management.

That said, we reinforce the need to continue research in this area, with the implementation of intervention projects in the community, promoting the training of the person and family for the management of chronic illness, identifying the strategies that promote training for the management of chronic illness and of measures capable of increasing it by reducing the costs for the person, family, and society. In future studies, we deem it pertinent to reach more participants, especially those less frequenting health services.

Authors' contributions

SF: Study conception and design; Data collection; Data analysis and interpretation; Statistical analysis; Manuscript writing.

MB: Data analysis and interpretation; Critical revision of the manuscript.

ES: Conception and design of the study; Data analysis and interpretation; Statistical analysis; Critical revision of the manuscript.

Conflicts of interests

No conflict of interest declared by the authors.

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