

Effects of an occupational therapy intervention program on patients with systemic arterial hypertension

Efeitos de um programa de intervenção terapêutico ocupacional em pacientes com hipertensão arterial sistêmica

Karoline Vitória Silva Rodrigues¹, Yarima Silva Gomes de Castro²,
Enise Cássia Abdo Najjar³

<http://dx.doi.org/10.11606/issn.2238-6149.v28i1p63-70>

Rodrigues KVS, Castro YSG, Najjar ECA. Effects of an occupational therapy intervention program on patients with systemic arterial hypertension. *Rev Ter Ocup Univ São Paulo*. 2017 Jan.-Apr.;28(1):63-70.

ABSTRACT: The objective of this study was to analyze the effects of Occupational Therapy intervention on health education, knowledge about Systemic Arterial Hypertension (SAH) and adherence to treatment of hypertensive patients. This is a clinical, descriptive study, with quantitative-qualitative approach. Seven hypertensive patients attended by the HIPERDIA program of a Primary Health Unit in Belém, Brazil, participated in the study, who presented poor knowledge and/or low adherence to the treatment of hypertension. Patients were selected from the application of two semi-structured questionnaires that aimed to evaluate the knowledge about SAH, adherence to treatment and occupational routine of the participants. The research was developed in three stages: application of questionnaires, educational intervention in 13 sessions and re-application of questionnaires. Data analysis was developed in a quantitative-qualitative way. The results showed an average increase of 76.4% in the knowledge levels ($p = 0.0007^*$) and 77.81% in the levels of adherence to the treatment ($p = 0.0012^*$) of participants after the intervention, with introduction of healthier habits in the occupational routine. It was concluded that the participants' knowledge about their disease contributed to the increase of adherence to the treatment, evidencing a close relationship between occupational routine and adherence to treatment. It was verified the effectiveness of the Occupational Therapy intervention in the approach of health education to the hypertensive patient.

KEYWORDS: Hypertension; Health education; Occupational therapy.

Rodrigues KVS, Castro YSG, Najjar ECA. Efeitos de um programa de intervenção terapêutico ocupacional em pacientes com hipertensão arterial sistêmica. *Rev Ter Ocup Univ São Paulo*. 2017 jan.-abr.;28(1):63-70.

RESUMO: O estudo objetivou analisar os efeitos da intervenção de Terapia Ocupacional, no âmbito da educação em saúde, no conhecimento acerca da HAS e na adesão ao tratamento do paciente hipertenso. Trata-se de um estudo clínico, descritivo, com abordagem quanti-qualitativa. Participaram do estudo 7 pacientes hipertensos atendidos pelo programa HIPERDIA de uma Unidade Básica de Saúde de Belém, que apresentaram conhecimento precário e/ou baixa adesão ao tratamento da HAS. Os pacientes foram selecionados a partir da aplicação de dois questionários semiestruturados que objetivaram avaliar o conhecimento acerca da HAS, a adesão ao tratamento e a rotina ocupacional dos participantes. A pesquisa foi desenvolvida em três etapas: aplicação dos questionários, intervenção educativa em 13 sessões e re-aplicação dos questionários. A análise de dados foi desenvolvida de forma quanti-qualitativa. Os resultados apontaram uma ampliação em média de 76,4% dos níveis de conhecimento ($p=0.0007^*$) e de 77,81% nos níveis de adesão ao tratamento ($p=0.0012^*$) dos participantes após a realização da intervenção, com introdução de hábitos mais saudáveis na rotina ocupacional. Concluiu-se que o conhecimento dos participantes acerca de sua doença contribuiu para o aumento da adesão ao tratamento, evidenciando estreita relação entre rotina ocupacional e adesão ao tratamento. Constatou-se a eficácia da intervenção de Terapia Ocupacional na abordagem de educação em saúde junto ao paciente hipertenso.

DESCRITORES: Hipertensão; Educação em saúde; Terapia ocupacional.

This article is part of the Final Course Paper of the Occupational Therapy of Universidade do Pará entitled "Terapia Ocupacional e Hipertensão Arterial Sistêmica: uma abordagem em educação em saúde" (Occupational Therapy and Systemic Arterial Hypertension: an approach to education in health). It was presented as an oral presentation at the Congresso Brasileiro de Terapia Ocupacional, Rio de Janeiro, Brazil, from Oct. 12 to 15. Source: Pibic CNPq.

1. Occupational Therapist, Medic in Heart Health Care of Universidade do Estado do Pará (UEPA), Belém, Pará, Brazil. Email: karoltorodrigues@hotmail.com

2. Occupational Therapist of Clínica Fisiocenter, Belém, Pará, Brazil. Email: yarimacastro21@hotmail.com

3. Professor of the Occupational Therapy Program – Universidade do Estado do Pará (UEPA), Belém, Pará, Brazil. PhD in Theory and Research of Behavior from Universidade Federal do Pará. Email: najjarenise@gmail.com

Correspondence address: Departamento de Terapia Ocupacional. Travessa Perebeui, 2326 – Bairro do Marco, Belém, Cep: 66.625-460, Belém – PA.

INTRODUCTION

Systemic Arterial Hypertension (SAH) is the most common injury with greater clinical repercussion on life quality of the individual¹. Since it is a chronic pathology, it requires adequate and continuous treatment, in order to contribute to the prevention of possible complications and increase the life quality of hypertensive patients².

For the treatment of SAH to be properly carried out, the importance of a multidisciplinary team is highlighted. The team must act not only in pharmacological treatment, but also in drug treatment, through strategies such as those used in health education, which may increase the adherence to SAH treatment³.

Regarding adherence to treatment, this is the degree of correspondence between the behavior of a person and the recommendations agreed with the health professional⁴.

Health education focused on SAH may favor greater pathology knowledge and contribute to behavioral and lifestyle changes, through the development of self-care and autonomy of individuals in front of their chronic illness. In addition, it promotes the prevention of diseases, such as cardiovascular disease, cerebrovascular and kidney diseases, contributing to better living conditions⁵.

In this sense, the role of the occupational therapist in the primary health care, as a professional who promotes the interlacing of health promotion, disease prevention, treatment and rehabilitation actions. In this field, the occupational therapist considers users as the protagonists in the production of their own health⁶.

In the context of non-communicable chronic diseases, the occupational therapist is a professional specialized in prevention, lifestyle modification and involvement of individuals in the process of their chronic disease management, developing coping strategies and changes in behaviors and habits that become part of their occupational routine⁷.

Therefore, it considers the importance of the role of the occupational therapist with the patient with SAH, as an integral part of the multidisciplinary team, since the performance of this professional is focused on human and promoting changes in habits, routines and occupational roles, promoting greater adherence to treatment⁸.

The objective of this study was to analyze the effects of Occupational Therapy intervention on health education, knowledge about SAH and adherence to treatment of hypertensive patients with SAH.

METHODOLOGICAL PROCEDURES

This is a clinical, descriptive study, with a quantitative-qualitative approach. The research was approved by the Research Ethics Committee (CEP) of the Universidade do Estado do Pará (UEPA), opinion no. 919,149, in December 2014.

Seven hypertensive patients attended by the HIPERDIA program of a Primary Health Unit in Belém, Brazil, participated in the study. All participants signed an informed consent form.

Inclusion criteria were patients enrolled in the HIPERDIA program, the HIPERDIA program was proposed by the Brazilian Ministry of Health in 2001, with the purpose of registration and follow-up of individuals affected by SAH and/or diabetes mellitus⁹, and who submitted scores less than 60% of the evaluation of the instruments applied, related to SAH knowledge and the adherence to the treatment of the disease.

For data collection, two semi-structured questionnaires were used, prepared prior to the study. The first eleven questions aimed to evaluate two dimensions: The participant's knowledge about SAH (an blood pressure of a subject affected by hypertension, symptoms of SAH, SAH risk factors, SAH complications, and treatment care); and treatment adherence (correct diet, physical activity, proper use of medicine, alcohol intake, smoking and stressful situations). The second questionnaire with eight questions, aimed to meet the occupational routine of participants and verify the patients perception about the interference of daily activities in the treatment of SAH. The second questionnaire included four components: Domestic activities (cleaning the house, sweeping the house, preparing meals, washing clothes, washing the dishes, among others); Work (exercise of remunerated labor activity, the presence of stress/pleasure in labor activity); Leisure (weekly leisure activities); and Interpersonal Relations (presence of family disputes, frequency of these conflicts, existence of extrafamilial support network).

The questionnaires were applied to 47 participants. Out of these 47 participants, 24 met inclusion criteria and were invited to participate in the Program of Occupational Therapy Activities. However, only seven have accepted the invitation to participate in the program.

The program consisted of 13 sessions, developed in the period of two months, with two weekly meetings of about 1 hour and a half of duration. Health education strategies were used, with topics based on VI Brazilian Guidelines of Hypertension – VI DBH³. The program consisted of: five meetings, which addressed aspects

related to knowledge of pathology (general features of SAH, symptoms and risk factors, complications, and treatment); a meeting in which they analyzed and reflected with participants about the occupational routine of each patient; six meetings where the treatment adherence was addressed (psycho-emotional stress control, physical activity and correct diet) and a meeting in which planning of the new occupational routine took place together with the participants. The meetings were divided in three moments: firstly, the reception of participants, presentation of the theme and the purpose of the meeting; secondly, the development of the proposed activity occurred; and then, the exchange of experiences on the activity carried out. The program of activities aimed at sharing information relevant to the treatment of SAH, analyzing and reflecting on the occupational routine of participants, sensitizing patients to the need for incorporation of self-care activities to improve adherence to treatment. The occupational therapists throughout the Program of Activities aimed to be facilitators of the process of health education, addressing the participants as protagonists of their own treatment.

As activities, significant activities were used (cut and paste; assembly, theater), relaxation activities, educational activities (educational videos, brochures, informative panel construction, talk with nutritionist) and leisure activities (walking with participation and physical educator instruction), aiming at promoting the relaxation, expression, knowledge, reflection and group integration.

As material resources, stationery resources were used (A4 paper, EVA sheets, cardboard paper, ballpoint pen, color pen, glue, scissors etc.), printed illustrative figures, folders, sound, soundbox, data show, mattresses, tables and chairs. As human resources: the researchers of the study, and also the participation of a physical educator and a nutritionist in a specific meeting about the importance of physical activity and appropriate diet for hypertensive patients, respectively.

After the closure of the intervention group the same instruments were re-applied in order to assess the effects of the intervention program in Knowledge and Treatment Adherence.

Data analysis was developed in quantitative and qualitative manner, for better interpretation of reality and to achieve the purposes of the study. In the statistical analysis, inferential and descriptive methods were applied. Data analysis of questionnaires resulted in a score for each aspect analyzed, corresponding to one point for each correct alternative. For the award of total scores, responses were converted to a scale whose scores ranged from zero (0) to

twenty three (23) points for the Knowledge aspect and zero (0) to twelve (12) points to the Adhesion aspect.

Thus, in the questionnaire related to Knowledge, participants who have obtained from 9 to 0 points corresponded to 0% to 39.9% of correct answers and were classified in low levels; participants who have obtained 0-14 points corresponded 40%-59.9% and were classified in average levels; and participants who have obtained 15-23 points corresponded to 60%-100% of correct answers and were classified at high levels.

Thus, in the questionnaire related to Adhesion to Treatment, participants who have obtained from 0 to 4 points corresponded to 0% to 39.9% of suitable care and were classified in low levels; participants who have obtained 5-7 points corresponded 40%-59.9% of suitable care and were classified in average levels; and participants who have obtained 8-12 points corresponded to 60%-100% of suitable care and were classified at high levels.

The t-test Student for paired samples was used to determine the difference between the applications of the questionnaires before and after the intervention. The alpha significance level = 0.05 was previously set for rejection of the hypothesis of invalidity. Statistical processing was performed on the softwares GrafTable version 2.0 and BioEstat version 5.3. The significant values were marked by (*).

Qualitative data collected through the free statements of the participants during the intervention held have been documented by researchers in form of record in a field log and subjected to content analysis. During the analysis undertaken, the topic and features associated with the topic¹⁰ were highlighted, where three analytical categories were defined: knowledge of SAH, treatment adherence and occupational routine.

For identification of participants, we opted to use the letter P followed by a number, for example, P1, P2 to P7.

RESULTS AND DISCUSSION

Of the seven participants, six were female, between the ages of 55 and 78 years, P1, P3, P4 and P5 aged over 70 years. Four participants completed elementary school and four had household income between 1 to 2 minimum wages. Most of them, with the exception of P7, were retired.

In relation to sex, studies have shown that women tend to seek health services more than men, which implies an increase in the odds of detecting the SAH early, moreover, the studies claim that the survival rate is higher in women compared with men, and therefore more prone to chronic diseases diagnosis¹¹.

Concerning age, some studies point out that blood pressure (BP) levels tend to increase with age, considering values greater than or equal to 14/9, and the prevalence of SAH is higher than 60% in persons aged above 60 years, as observed in the present study^{3,12}.

In the analysis of present risk factors, P3 and P4 had high blood pressure, 15/8 and 16/10 respectively. P4, P5 and P6 had diabetes mellitus, P7 was with degree of obesity 2 (BMI 35.06) and P3 with degree of obesity 3 (BMI 41.71). P1, P2 and P3 showed cholesterol and triglycerides above recommended levels, according to the VI DBH³. It was observed that all research subjects presented at least one risk factor. In the study by Radocanovic et al.¹³ with hypertensive patients, the authors found similar results, in which all participants aged from 50 years presented at least one cardiovascular risk factor and out of these, 40% showed five or more risk factors.

At the end of the Program of Activities, it was detected that everyone showed controlled blood pressure, including P3 and P4.

• **Knowledge on SAH**

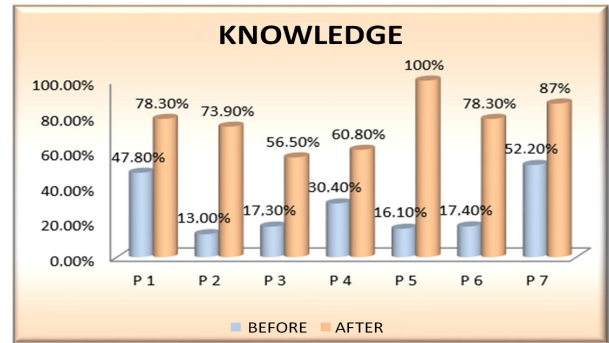
Regarding Knowledge of SAH, before starting the Program of Activities, participants P2, P3, P5, P6 and P4 presented low levels. P1 and P7 showed average levels of Knowledge. The participants did not know the blood pressure values of SAH (P2, P3, P4, P5, P6, P7), symptoms (P2, P5, P6), risk factors (P2, P3, P6), complications (P3) and the care with the treatment (P2, P6).

After the intervention, participant P5 was the most outstanding, showing an increase of 83.9% in Knowledge of SAH, followed by P2 and P6, who showed increase of 60.9%. Participants P1, P3 and P4 showed an increase of more than 30% in the knowledge. P7, who already had the average level of Knowledge of SAH before the intervention, achieved high level of knowledge. It is worth mentioning that all participants have achieved a high level of knowledge at the end of the program of activities with the exception of P3, as noted in Chart 1.

It is stressed out that the results in relation to the Knowledge of SAH of the seven patients showed that there was a statistically significant increase ($p = 0.0007^*$) between the assessment before (27.7 ± 16.2 points) and after (76.4 ± 14.8 points), therefore, an increase of 48.7 points.

With the development of the interventions, it was noted that participants were increasingly interested to know about the pathology and demonstrated the importance of this knowledge to the treatment. Independently, they were searching for access to new knowledge about SAH:

Chart 1 – Knowledge of the participants (n = 7) about SAH before and after the Program of Activities. Belém, PA, Brazil, 2015



I never studied hypertension. But yesterday I was searching on the internet and I saw that more than 40 million Brazilians have high blood pressure. I was surprised. (P7)

Before the Group I knew nothing of high blood pressure. Now I know. And that's important right?! Because if I don't know, how do I know what to do or if my pressure is ok? (P2)

The importance of knowledge of patients with hypertension on their pathology, severity and treatment-related care is pointed out in the literature as a fundamental factor for the adherence to treatment, since the access to the SAH information favors the perception of health risks and the importance of self-care¹⁴.

In research carried out at a Primary Health Care Unit in the State of Ceará¹⁵ the authors aimed to identify the level of knowledge of hypertensive patients about their pathology, its determinants, complications as well as the adequacy of treatment and life habits. It was found that 90% of individuals did not know how to describe what SAH is, 65% did not know the risk factors and 55% have adapted partially their living habits to the treatment of hypertension. The findings of this study resemble the results found in our research.

Ong et al.¹⁶ pointed out that favorable results in the assessment of knowledge of patients with hypertension probably arise out of appropriate information provided to the public about the disease, investment of training of health professionals, the participation of multidisciplinary teams in the local health system, a more aggressive policy in primary health care level and the participation of the patients in their care process. It was observed in this research that the relevant information presented

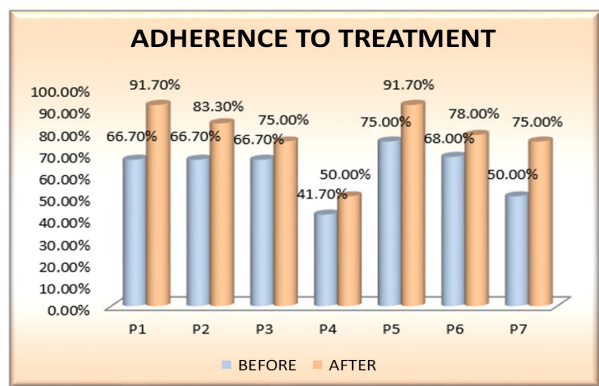
during the Program of Activities and the participation of the patient were factors that contributed to the favorable results of this study.

• **Adherence to the SAH Treatment**

In relation to adherence to treatment reported by participants before the program of activities, concerning the “correct use of the medicines,” it was identified that only P4 informed that did not use it properly. Regarding “diet care,” P2, P3, P4 and P5 reported that they do not follow the diet properly. As for the “performance of physical activity,” P1, P3, P4, P6 and P7 reported that they do not practice physical activity. In relation to the “absence of stressful situations,” P2, P4, P6 and P7 reported experiencing these situations in their daily life. Patient P4 pointed out experiencing stressful situations more than three times during the week.

After the implementation of the Program of Activities, from the reports of the participants, it was identified that everyone showed an increase in adherence to treatment. P2, P3 P5 reported changes in “diet care,” referring to decrease in the frequency of consumption of salty, fried and fat foods. Compared with “performance of physical activity,” P1 and P7, which do not performed before, reported that they started to perform physical activities. As for the “experience of stressful situations,” P4, P6 and P7 reported avoiding the confrontation of stressful situations as, for example, discussions with family and work overload. On the proper use of medicines, P4, who did not develop such use before, started developing it properly. The results are showed in Chart 2.

Chart 2 – Adherence to treatment of participants (n = 7) before and after the program of activities. Belém, PA, Brazil, 2015



Results showed that, regarding the adherence to the SAH treatment reported by the seven patients, there was a statistically significant increase (p = 0.0012) between the

assessment before (62.7 ± 77.8 points) and after (76.4 ± 14.8 points), therefore, an increase of 15.1 points.

During the implementation of the Program of Activities, it was observed that, gradually, the participants started introducing in their daily life healthier habits, and reported that they had changes in health care not developed before:

I can see that my pressure is more controlled. I think because since the beginning of the Group I'm trying to be more careful with my diet. (P6)

It's hard, but I'm avoiding fighting with my son... I need to avoid it, right? Otherwise I'm going to die because of it! (P4)

Thank God I started walking every day and I'm also taking my wife. She is diabetic. Twenty minutes a day is very fast. (P7)

Changes in eating habits are customs acquired and present since childhood, related to ethnic origin and the socioeconomic condition of the subject, and it is not a habit easy to change¹⁷. Baldissera¹⁸ showed in his studies on hypertensive patients that care related to the proper nutrition was the most neglected factor, with only 2.78% of adherence. This study reinforces the author's findings, since most of the participants, P2, P3, P4, P5 and P7 reported difficulties in developing modifications or restrictions on food since the diagnosis of SAH.

Regarding the implementation of physical activity, Serafim, it is not a practice commonly experienced by the majority of hypertensive patients, in spite of its close relationship with blood pressure control¹⁹. In this context, studies carried out by Souza et al.²⁰ showed that more than half of the participants did not perform physical activity. This study detected similar results, because five participants, P1, P3, P4, P6 and P7 did not develop such care.

On the psycho-emotional stress, Reza and Nogueira²¹ detected in a study that 82% of hypertensive participants considered themselves as nervous and stressed, and that the situations that caused stress were related to family or home situations, work activities or social problems. Similar results were found in our study, in which four participants, P2, P4, P6 and P7, reported the difficulty of not being able to avoid the experience of stressful situations in everyday life.

Unger and Parati²² pointed out that the experience of psycho-emotional stress contributes to sustained arterial hypertension, as identified in the reports of patient P4, who presented high BP before participating in the program.

Thus, it is possible to notice that changing habits and lifestyle are difficulties experienced by patients with chronic diseases. However, it was identified that all participants started developing some care related to treatment, which was undeveloped before, whether related to diet and/or the practice of physical activity, and/or the control of stress and/or appropriate use of medicine. We highlight that participant P7 was the one that most performed modifications on the adherence, managing to perform care related to physical activity in daily frequency and control of psycho-emotional stress, previously undeveloped.

• Occupational Routine

In relation to occupational routine, six retired participants – P1, P2, P3, P4, P5 and P6 – considered the housework that they performed as labor activity. It was also detected that P3, P4, P5, P6 and P7 did not perform leisure activities.

In the perception of participants P2, P3, P4, P5 and P6, occupational routine contributed to the adherence to the treatment of SAH, while P1 mentioned that it did not interfere in the adherence, while P7 reported that it made the adherence difficult due to the overload of the labor activity and frequency of experiences of stressful situations.

However, the detailed analysis of the data related to occupational routine enabled to note that the participant P4 performed stressful domestic work and experienced frequent family conflicts two to three times a week, which could hinder the continuation of treatment. Therefore, this participant did not have an occupational routine that contributed to proper adherence to treatment, as classified in the questionnaire. In addition, P4 and P7 had significant difficulties to develop, as appropriate, the care related to diet, due to the family and daily work routine.

On the other hand, P5 demonstrated, during the Program of Activities, to have an organized occupational routine contributing to the development of a proper treatment, reporting awareness regarding the importance of health care, seeking to practice them on a daily basis.

During the development of the Program of Activities, the other patients P1, P2, P3 and P6 reported difficulties in performing changes in the occupational routine, which they were used for a long time.

After the intervention, it was observed that participants P6 and P7 started developing leisure activities at least once a week. P7 also reported that started to better control the psychosocial stress in the work environment. The work was considered stressful before the Program of Activities, and at the end of the intervention it was classified as a little stressful.

P7, after the intervention, started organizing his occupational routine so that he was able to perform daily physical activity:

Now I'm organizing myself better. I'm waking up a little earlier, I go out for a walk every day, and I'm also taking my wife, who's doing everything with me... and it's good since she's diabetic, right? Then I come back, stay in the tavern alone while she makes our lunch... it's all for the best, for both of us. (P7)

Under the changes made in the occupational routine, participant P7 achieved a 25% increase in terms of adherence to treatment.

Regarding participant P4, she reported that family conflicts decreased in intensity, and classified the frequency as once a week. The participant pointed out that this fact contributed to the improvement of her mood during the day, including her focus on development of some important daily activities such as the memory to take the medicine properly:

...we are fighting less, thank God. It's not that good, but it's better. I'm trying to not be stressed out, avoiding a few things, ignoring others... It's better this way, I'm less stressed during the day. I concentrate to do my things and I'm not thinking about the anger all the time. I even remember to take my medicines properly. (P4)

As for patients P1, P2, P3 and P5, these did not show changes in their occupational routine after the Program of Activities. However, they demonstrated greater commitment and diligence in treatment care such as more care with the diet, physical activity and stress control.

Concerning the habit of practicing leisure activities, we noticed that most of the patients were not only unaware of the real importance of this activity for the health and life quality, but they also did not perform these activities. After the intervention, of the seven participants, only two started performing leisure activities.

In research conducted by Baldissera and Bueno²³ about leisure and SAH, the authors found findings that differ from this study. The patients interviewed highlighted that leisure is a way of facing loneliness because it promotes socialization, the enthusiasm for life and mental health. In addition, leisure was seen as coping strategies and treatment of hypertension.

As for the occupational routine, studies by Nair et al.²⁴ showed that such activities have a significant influence on adherence to treatment of hypertensive

subjects, indicating that the occupational routine organization positively contributes to adherence to care required for the treatment.

Data from this study corroborate the study by Nair et al.²⁴ pointing out also to a close relationship between occupational routine and adherence to treatment of SAH. Data also show that activities of occupational routine can exert impact on the control of blood pressure.

CONCLUSION

Our research pointed out a significant enlargement of levels of knowledge and of adherence to the treatment of participants after the implementation of the Program of Activities. The study confirmed that the knowledge of the participants with SAH about their disease contributes to the increase of adherence to treatment, as well as showed a close relationship between occupational routine and such adherence.

The study shows, in the field of Occupational Therapy, the importance of the occupational routine

focused on hypertensive patients, because from the careful analysis with appropriateness of activities of this routine, it was possible to achieve highest rates of adherence to the treatment. Therefore, it should be noted that the study favored the maintenance of health and blood pressure control, contributing to the prevention of complications in the short term.

In addition, the study has shown the importance of the guidelines of VI DBH regarding the value of the intervention of health education in follow-up of hypertensive patients.

In the context of Primary Health Care, the survey shows, therefore, the effectiveness of Occupational Therapy intervention on health education approach with patients with SAH.

There is need to further investigate the relationship between family conflicts, Systemic Arterial Hypertension and occupational routine in future studies, due to the prevalence of the reports of the participants regarding the experience of these conflicts and the consequent difficulties in treatment adherence.

REFERENCES

1. Boing AC, Boing AF. Hipertensão Arterial Sistêmica: o que nos dizem os sistemas brasileiros de cadastramentos e informação em saúde. Rev Bras Hipertensão. 2007;14(2):84-8. Disponível em: <http://departamentos.cardiol.br/dha/revista/14-2/06-hipertensao.pdf>.
2. Alves BA, Calixto AATF. Aspectos determinantes da adesão ao tratamento de hipertensão e diabetes em uma Unidade Básica de Saúde no interior paulista. J Health Sci Inst. 2012;30(3):255-60. Disponível em: http://www.unip.br/comunicacao/publicacoes/ics/edicoes/2012/03_jul-set/V30_n3_2012_p255a260.pdf.
3. Sociedade Brasileira de Cardiologia. Sociedade Brasileira de Hipertensão. Sociedade Brasileira de Nefrologia. VI Diretrizes Brasileiras de Hipertensão. Arq Bras Cardiol. 2010;95(1 supl.1):1-51. Disponível em: http://publicacoes.cardiol.br/consenso/2010/Diretriz_hipertensao_ERRATA.pdf.
4. Organización Mundial de La Salud. Adherencia a los tratamientos a largo plazo: pruebas para la acción. Washington, D.C.; 2004. Disponível em: http://www.paho.org/hq/index.php?option=com_docman&task=doc_view&gid=18722&Itemid=270.
5. Ribeiro AG, Cotta RMM, Silva LS, Ribeiro SMR, Dias CMGC, Mitre SM, et al. Hipertensão arterial e orientação domiciliar: o papel estratégico da saúde da família. Rev Nutr. 2012;25(2):271-82. <http://dr.doi.org/10.1590/S1415-52732012000200009>.
6. ROCHA EF, SOUZA CCBX. Terapia ocupacional em reabilitação na atenção primária à saúde: possibilidades e desafios. Rev Ter Ocup Univ São Paulo. 2011;22(1):36-44. <http://dx.doi.org/10.11606/issn.2238-6149.v22i1p36-44>.
7. American Occupational Therapy Association. The role of occupational therapy in primary care. Am J Occup Ther. 2014;68:25-33. doi:10.5014/ajot.2014.686S06.
8. Duarte GP, Uchôa-Figueiredo LR. A vida cotidiana e a qualidade de vida de pacientes atendidos na atenção primária de saúde. Cad Ter Ocup UFSCar. 2010;18(1):19-33. Disponível em: <http://www.cadernosdeterapiaocupacional.ufscar.br/index.php/cadernos/article/view/330/265>.
9. Brasil, Ministério da Saúde. DATASUS: Hiperdia. Brasília; 2001. Disponível em: <http://datasus.saude.gov.br/sistemas-e-aplicativos/epidemiologicos/hiperdia>.
10. Bardin L. Análise de conteúdo. São Paulo: Edições 70; 2011.

11. Mendes GS, Moraes CF, Gomes L. Prevalência de hipertensão arterial sistêmica em idosos no Brasil entre 2006 e 2010. *Rev Bras Med Fam Comunidade*. 2014;9(32):273-8. Disponível em: <http://www.rbmf.org.br/rbmfc/article/view/795/641>.
12. Silva LR, Oliveira EAR, Lima LHO, Formiga LMF, Sousa ASJ, Silva RN. Fatores de risco para hipertensão arterial em policiais militares do centro-sul piauiense. *Rev Baiana Saúde Publica*. 2014;38(3):679-92. <http://dr.doi.org/10.5327/Z0100-0233-2014380300014>.
13. Radovanovic CAT, Santos LA, Carvalho MDB, Marcon SS. Hipertensão arterial e outros fatores de risco associados à doenças cardiovasculares em adultos. *Rev Lat-Am Enfermagem*. 2014;22(4):22-4. <http://dr.doi.org/10.1590/S0103-2100201300020012>.
14. Nolêto SMG, Silva SM, Barbosa CO. Conhecimento dos hipertensos sobre a doença. *RBCEH*. 2011;8(3):324-32. <http://dr.doi.org/10.1590/0104-1169.3447.2442>.
15. Lima ER, Barros ARC, Oliveira CAN. Percepção dos clientes hipertensos acerca das complicações da hipertensão arterial sistêmica. *Rev Interfaces Saúde Humanas Tecnol*. 2014;2(5):1-9. <http://dr.doi.org/10.16891/2317.434X.96>.
16. Ong KL, Cheung BM, Man YB, Lau CP, Lam KS. Prevalence, awareness, treatment, and control of hypertension among United States adults 1999-2004. *Hypertension*. 2007;49:69-75. doi: 10.1161/01.HYP.0000252676.46043.18.
17. Oliveira TL, Miranda LP, Fernandes OS, Caldeira AP. Eficácia da educação em saúde no tratamento não medicamentoso da hipertensão arterial. *Acta Paul Enferm*. 2013;26(2):179-84. <http://dr.doi.org/10.1590/S0103-21002013000200012>.
18. Baldissera VDA. Análise da adesão ao tratamento não-farmacológico anti-hipertensivo entre usuários de um centro de saúde escola [dissertação]. Maringá: Universidade Estadual de Maringá; 2005.
19. Serafim TS, Jesus ES, Pierin A. M. Influence of knowledge on healthy lifestyle in the control of hypertensive. *Acta Paul Enferm*. 2010;23:658-64. <http://dx.doi.org/10.1590/S0103-21002010000500012>.
20. Souza CS, Stein AT, Bastos Gan, PellandaLC. Controle da pressão arterial em hipertensos do Programa Hiperdia: estudo de case territorial. *Arq Bras Cardiol*. 2014;102(6):571-8. <http://dr.doi.org/10.5935/abc.20140081>
21. Reza CG, Nogueira MS. O estilo de vida de pacientes hipertensos de um programa de exercício aeróbico: estudo na cidade de Toluca, México. *Anna Nery Rev. Enferm*. 2008;12(2):265-70. <http://dx.doi.org/10.1590/S1414-81452008000200010>.
22. Unger T, Parati G. Acute stress and long-lasting blood pressure elevation: a possible cause of established hypertension? *J Hypertens*. 2005;200:261-3. http://journals.lww.com/jhypertension/Citation/2005/02000/Acute_stress_and_long_lasting_blood_pressure.4.aspx.
23. Baldissera VDA, Bueno SMV. O lazer e a saúde mental das pessoas hipertensas: convergência na educação para a saúde. *Rev Esc Enferm USP*. 2012;46(2):380-7. <http://dr.doi.org/10.1590/S0080-62342012000200016>.
24. Nair KV, Belletti JJ, Allen RR, McQueen RB, Sassen JJ, Vande Griend J, et al. Understanding barriers to medication adherence in the hypertensive population by evaluating responses to a telephone survey. *Patient Prefer Adherence*. 2011;5:195-206. doi: 10.2147/PPA.S18481.

Received: 05.18.16

Accepted: 01.19.17