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ORIGINAL ARTICLE

NURSING ACTIONS TO PATIENT WITH HYPERTENSION PRESENTING THE DIAGNOSIS "NONCOMPLIANCE"

AÇÕES DE ENFERMAGEM AO PACIENTE COM HIPERTENSÃO ARTERIAL QUE APRESENTA O DIAGNÓSTICO "FALTA DE ADESÃO"

ACCIONES DE ENFERMERÍA AL PACIENTE CON HIPERTENSIÓN ARTERIAL QUE PRESENTA EL DIAGNÓSTICO "FALTA DE ADHESIÓN"

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ABSTRACT

Objective: to evaluate the effectiveness of specific nursing actions for people with hypertension and problems on adherence. **Method:** quantitative cross-sectional research carried out between August/2011 and July/2012 with 72 hypertensive people registered in a Family Health Program of the municipality of Crato/CE. In data collection, a form was used. Data were recorded in Excel 2007 spreadsheet for Windows, organized into figures, a table and discussed with the literature. The research project was approved by the Research Ethics Committee, opinion 210/09. **Results:** we obtained increased understanding on hypertension, proper use of drugs, reduction of consumption of fat, salt and alcohol, increased physical exercise and increased use of herbal substances with the correct orientation. **Conclusion:** it was found that early identification of diagnosis Lack of Adherence was an effective tool for targeting actions that had a favorable impact on quality of life of patients, however, they need to be continuous and persistent. **Descriptors:** Hypertension; Diagnosis of Nursing; Nursing Care.

RESUMO

Objetivo: verificar a efetividade de ações de enfermagem específicas para pessoas com hipertensão e problemas na adesão terapêutica. **Método:** pesquisa transversal quantitativa realizada entre agosto/2011 e julho/2012 com 72 hipertensos cadastrados em uma equipe de Saúde da Família do município de Crato/CE. Na coleta de dados, foi utilizado um formulário. Os dados foram registrados em planilha eletrônica do Excel 2007 for Windows, organizados em figuras, uma tabela e discutidos com a literatura. O projeto de pesquisa teve a aprovação do Comitê de Ética em Pesquisa, parecer 210/09. **Resultados:** obteve-se aumento na compreensão sobre a hipertensão, correta utilização dos fármacos, redução do consumo de gordura, sal e álcool, aumento da prática de exercícios físicos e aumento do uso de substâncias fitoterápicas com orientação correta. **Conclusão:** constatou-se que a identificação precoce do diagnóstico Falta de Adesão foi uma ferramenta eficaz para o direcionamento de ações que tiveram impacto favorável na qualidade de vida dos pacientes, entretanto, elas precisam ser contínuas e persistentes. **Descritores:** Hipertensão; Diagnóstico de Enfermagem; Assistência de Enfermagem.

RESUMEN

Objetivo: verificar la efectividad de acciones de enfermería específicas para personas con hipertensión y problemas en la adhesión terapéutica. **Método:** investigación transversal cuantitativa realizada entre agosto/2011 y julio/2012 con 72 hipertensos inscritos en un equipo de Salud de la Familia del municipio de Crato/CE. En la recolección de datos, fue utilizado un formulario. Los datos fueron registrados en planilla electrónica de Excel 2007 for Windows, organizados en figuras, una tabla y discutidos con la literatura. El proyecto de investigación fue aprobado por el Comité de Ética en Investigación, parecer 210/09. **Resultados:** se obtuvo un aumento en la comprensión sobre la hipertensión, correcta utilización de los fármacos, reducción del consumo de grasa, sal y alcohol, aumento de la práctica de ejercicios físicos y aumento del uso de sustancias fitoterapéuticas con orientación correcta. **Conclusión:** se constató que la identificación precoz del diagnóstico Falta de Adhesión fue una herramienta eficaz para el direccionamiento de acciones que tuvieron impacto favorable en la calidad de vida de los pacientes, entretanto, ellas necesitan ser continuas y persistentes. **Descriptores:** Hipertensión; Diagnóstico de Enfermería; Asistencia de Enfermería.

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INTRODUCTION

Hypertension stands out as a chronic disease with high prevalence (ranges from 22.3% to 75% depending on the age of the affected individual)¹⁻³ that, since it depends on the cooperation and active participation of the hypertensive subject, for its control, constitutes a great challenge for health professionals. If not treated properly, hypertension can lead to serious consequences for the individual, such as stroke, myocardial infarction, renal failure, among others, being among the most common causes of mortality among adults and elderly.

For efficient treatment adherence, health professionals must remember that some requirements of the therapeutic regimen themselves, as intake of medications and changes in lifestyle habits, represent major changes in the life of the individual and their families, who start to have their dynamics affected, key areas for the implementation of educational dynamics.

Given the closeness that the nursing staff of the Family Health Strategy has with hypertensive patients, it is of great responsibility that the nurse, main health educator of this team, put into practice measures and strategies that promote the health of these patients and prevent future complications.⁴

To support the targeting of such measures, this professional makes use of the nursing diagnosis Noncompliance of NANDA-I, which was recently revised and had its elements validated in the literature and clinic by experts in nursing terminologies and/or in adherence to therapy of chronic diseases.⁵ The identification of this diagnosis allows that actions and effective strategies are found by nursing to alleviate the events that hinder adherence.

Because of the picture above, this study is considered relevant, because when developing actions based on a diagnosis, the nurse develops effective care, targeted to the real needs of these clients.

OBJECTIVE

- To verify the effectiveness of specific nursing actions for people with hypertension and problems on adherence.

METHOD

This was a cross-sectional, quantitative study, carried out between August/2011 and July/2012 with patients with hypertension, attended and monitored by a team of the

Family Health Strategy (FHS) in the city of Crato/CE, who had the nursing diagnosis Noncompliance to some aspect of antihypertensive treatment, in order to draw educational strategies and develop nursing actions that minimize the problems relating to adherence.

The FHS was chosen by observing the large number of patients with hypertension who demonstrated flaws in compliance during nursing consultations performed by the researcher and the students of the University held among the activities of the Supervised Internship I - Community Area, of the Nursing undergraduate course of Regional University of Cariri.

The total population of patients with hypertension registered and monitored in the selected unit was 251 individuals. For the sampling, a first sample calculation was accomplished, which resulted in 72 patients who should be interviewed and assessed in the health unit to estimate the frequency of the nursing diagnosis Noncompliance. However, to compose the actual sample of patients target of nursing actions, among these 72 individuals, we selected who met the following inclusion criteria:

- Being 18 years old or more.
- Having the medical diagnosis of hypertension for at least one year.
- Being in the drug treatment for hypertension for at least six months.
- Presenting the nursing diagnosis Noncompliance evidenced by the presence of validated defining characteristics attested by the researcher.

We identified 10 patients, who were invited to join the second phase of the study. Eight patients expressed their acceptance by signing the Informed Consent Form. The other two patients identified were not localized anymore due to change of address.

When all the characteristics of patients and their behavior in relation to antihypertensive treatment were obtained, nursing actions were drawn, individually for each patient and collectively, according to the specific points that need to be adjusted for proper continuity of care.

Patients were reassessed after the actions with the application of the same data collection instrument in order to check the resolution of the problems encountered and the effectiveness of nursing actions developed and implemented.

Patient data were recorded in Excel 2007 spreadsheet for Windows, arranged in a table

and figures and discussed according to the literature.

In view of the recommendations of the National Health Council Resolution 196/96, regarding research involving human subjects,⁶ the study of which this research was derived was approved for implementation by the Ethics Committee of the Federal University of Ceará, under the opinion 210/09 and the written permission for its performance on the health unit facilities was issued by the

Municipal Health Department of the city of Crato/CE.

RESULTS AND DISCUSSION

Educational nursing actions were applied in eight patients with the diagnosis Noncompliance to antihypertensive treatment.

The table below shows the sociodemographic characteristics of these patients:

Patient	Sex	Age	Color	Marital Status	Years of Education	Activity	Income
1	M	76	Light-Brown	With companion	0	Retired	2 MW
2	F	64	White	No companion	4	Pensioner	1 MW
3	F	43	Light-Brown	No companion	11	Housekeeper	1 MW
4	F	72	Light-Brown	No companion	5	Pensioner	1 MW
5	M	72	Light-Brown	No companion	2	Retired	2 MW
6	M	60	Light-Brown	With companion	10	Painter	4 MW
7	F	88	Light-Brown	No companion	0	Retired	1 MW
8	M	69	White	With companion	4	Retired	2 MW

Figure 1. Sociodemographic characteristics of patients who presented the nursing diagnosis Noncompliance. Crato, 2012.

The mean age of patients participating in these activities was 68 years old (+ 13.10 years) and male and female patients were equivalent. Five patients had no companion, and, of these, four were women. It is observed that only one patient had paid job, which reflects the low monthly family income (mean of 1.69 SM; + 1.25). For the years of education completed, the average was 4.5 years (+ 4.14 years), revealing that the majority of patients had low education.

These data were important for the planning of interventions, since not only the knowledge of the individual clinical situation, but the context in which patients live, their strengths and susceptibilities are essential for the establishment of a satisfactory educational practice. Therefore, it is necessary to articulate the socio-economic dimension and integrate technical knowledge with popular knowledge, seeking to incorporate them into the individual reality, walking to the interlocution health-intersectorality and interdisciplinary.⁷

Health education was used as a nursing intervention instrument. According to the Ministry of Health, the purpose of educational action is to develop in the individual/group the competence to critically analyze their reality; to decide joint actions to solve problems and change situations; to organize and perform the action and evaluate it critically.⁸

Thus, educational activities took place between November/2011 and May/2012, in the homes of patients (two per patient), through conversations with language easy to understand and use of explanatory images

addressing aspects of the disease, risk factors (stressing the damages of not changing them), treatment and complications. It was also discussed the participation of the family and the attending medical consultations in the unity of the Family Health Strategy which were registered, since they occur only every two months.

Issues related to the compliance of drug therapy and non-pharmacological treatment were the most emphasized. In drug treatment, we discussed, with the patient, strategies to reduce the forgetfulness, as for example, the use of mobile telephony alarms or alarm devices, accommodating the times of taking medicines with activities of daily living and storage of drugs in places of easy access and visibility. We have also addressed adverse effects of some drugs used and information from locations other than the health unit for obtaining free of drugs, as well as the importance of taking only the medicine prescribed by the doctor, in the right quantity and time.

Another focus of nursing actions were the modifiable risk factors of hypertension, based on the clarification of the benefits of adopting healthy lifestyle habits. We encouraged the adoption of an alimentation with low saturated fats, preservatives and sodium, aerobic physical exercise, highlighting the regularity, duration and the importance of seeing a doctor before starting the practice, and the need to develop coping skills and self-control before stressful situations was elucidated.

After the educational activities and, consequently, after six months of the first

collection, the data collection instrument was again applied with a view to evaluating the results of these actions.

With regard to aspects of non-pharmacological treatment of patients with the diagnosis Noncompliance, Figure 1 shows:

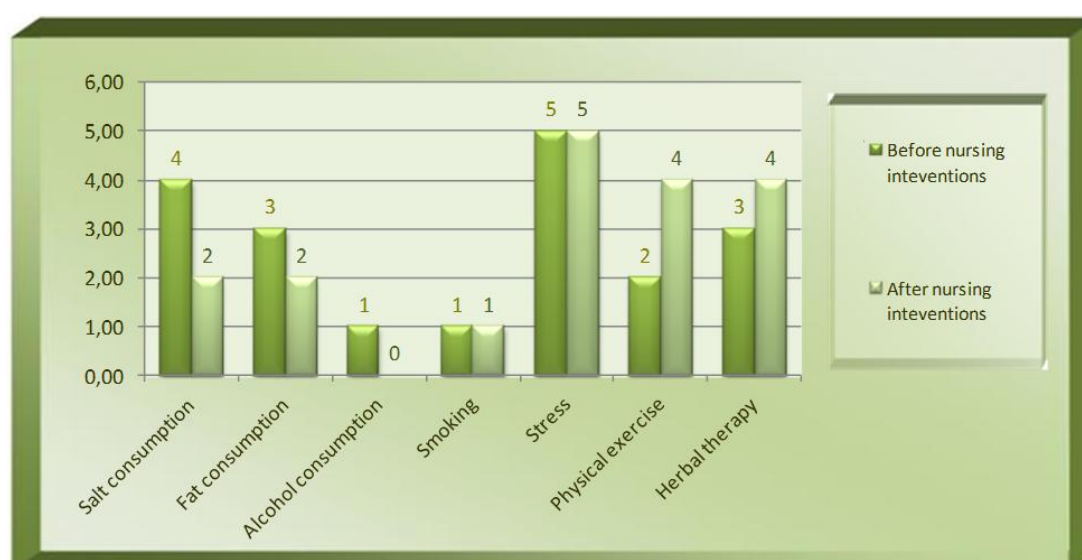


Figure 2. Non-pharmacological measures of patients with Noncompliance. Crato-CE, 2012.

It was noticed that several aspects of the non-pharmacological treatment for hypertension had positive changes. There was a reported reduction of 50% in salt consumption by hypertensive patients with the nursing diagnosis Noncompliance; the consumption of saturated fat also reduced in more than 30%; and the alcohol intake was eliminated.

Health education helps people to acquire autonomy to identify and use the ways and means to preserve and improve their lives.⁹

With regard to physical exercise, the increase was 50% after the educational Nursing activities. The mean frequency of weekly exercises before was 4.5 days (+ 3.53 days) and, after the educational activities, it increased to 4.75 days (+ 2.63 days), with mean duration of 45 minutes of exercise (SD + 17.32).

Exercise causes cardiovascular adaptations and adjustments responsible for the decrease in blood pressure, whose mechanisms interact with each other and seem to depend on factors such as the range of arterial pressure values, age, ethnicity, genetic inheritance and type of exercise practiced.¹

As for stress and smoking control there were no changes after the actions. It is assumed that the period and/or the frequency of monitoring in interventions has not been sufficient for these two aspects, which have multifactorial and complex causes, which requires prolonged awareness of these patients.

There is need to invest continuous and focused efforts to support smokers to escape the vicious cycle of addiction, and thus, become a changing agent of their own behavior.¹⁰ This is critical because smoking is an important risk factor for development of cardiovascular disease and other diseases, furthermore, associated with hypertension, smoking increases cardiovascular risk.¹

To control stress there is also need for repeated actions, since the self-control is a personal skill that is developed gradually. Stress can directly influence the elevation of blood pressure in hypertensive patients,¹¹ besides acting as a barrier to treatment adherence and changing habits.¹

In relation to the understanding of drug treatment of patients with nursing diagnosis Noncompliance, the following Figure 2 shows:

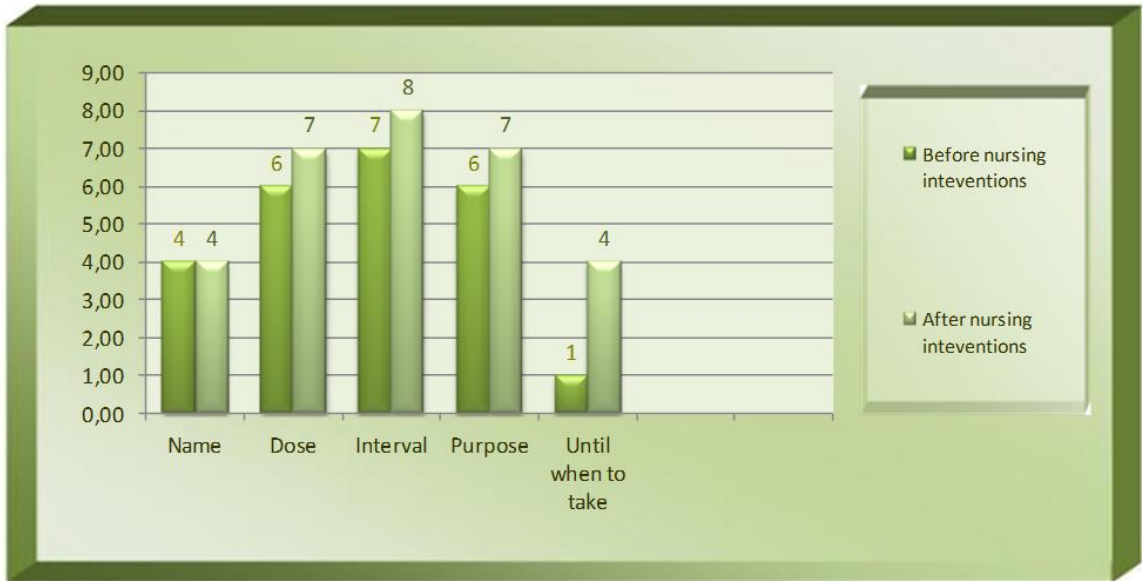


Figure 3. Positive understanding of patients with Noncompliance on the use of medicines. Crato-CE, 2012.

Figure 3 shows that the application of nursing activity was really satisfactory for hypertensive patients. The educational actions brought further clarification on the use of antihypertensive medications, allowing greater knowledge concerning important aspects of drug therapy.

In a study on adherence to treatment of hypertension in a basic health unit, it was found that there was no further guidance on the care of drug treatment or the use of strategies to facilitate the identification of medication and time to take it. Patients used to seek the service not to check blood pressure, but only to receive the medication. It was realized, in face of this context, the need for a health education plan¹². Therefore, it is noted the contribution of educational interventions, by giving the patient knowledge and sense of responsibility to correctly follow the treatment and thus achieve better quality of life.

Adherence to treatment is one of the essential points for the therapeutic success against high blood pressure, and also to ensure a good quality of life for these patients. After the implementation of nursing actions, there was an increase of 50% in adherence to treatment of hypertension, thereby demonstrating that health education activities had positive results.

A study on treatment adherence in hypertensive patients found that, with regard to patient-related factors, 88% did not know the disease and 81% showed not knowing the therapeutic target (blood pressure values appropriate to their condition). It was also found that the greatest number of drug prescription, the presence of side effects, comorbidities and the highest pressure levels are related to lower adherence.¹³

“Non-adherence is a major obstacle for achieving adequate control of blood pressure. Many factors can potentially affect patient’s compliance to hypertension therapy”.^{1:164}

About the possible causes given by patients for these compliance failures, figure 4 shows:



Figure 4. Possible causes for compliance failures identified by patients with Noncompliance. Crato-CE, 2012.

Figure 4 shows the main causes given by patients that limit treatment follow-up. It was noted that some aspects (difficulty in taking medication, do not understand the prescription and do not accept the diet) remained unchanged even after the educational activities. On the other hand, the remaining items (forgetfulness, cannot exercise and do not like exercising) obtained favorable results.

One of the most important strategies to improve adherence to treatment of hypertension is to simplify treatment. However, elderly patients tend to have higher number of concurrent chronic conditions and often cannot reduce the number of drugs.¹⁴ With regard to diet, patients remained with the same opinion, thus, representing a worrying result, since non-adherence to a healthy diet with low levels of sodium, fat and rich in fruits and vegetables may interfere with the control of arterial hypertension and cause severe consequences.

To modify this framework, experiences in order to ensure even greater patient compliance to non-pharmacological treatment of hypertension need to be encouraged and incorporated into the largest possible number of health units. A successful example of action is an educational proposal applied to a group of hypertensive patients at a hospital in Fortaleza-CE. The activity consisted of two distinct phases: the practice of walking on the track and development of educational workshops, in which issues related to high blood pressure were discussed.¹⁵ The educational approach developed was efficient, since there was awareness of the subjects on the importance of exercise in controlling hypertension.

As for the understanding of the disease by patients with the nursing diagnosis Noncompliance (recognized by the application of Batalla test), table 1 shows:

Table 1. Evaluation of knowledge of patients with Noncompliance on the hypertension through the Batalla test. Crato-CE, 2012.

Questions	Before the interventions		After the interventions	
	n	%	n	%
Is hypertension a disease for a lifetime?	7	85,5	8	100
Can hypertension be controlled with diet?	7	85,5	7	85,5
Can hypertension be controlled with medication?	6	75	7	85,5
Cite two organs that can be affected by high pressure.	1	12,5	3	37,5
TOTAL	8	100	8	100

n = absolute frequency of people who answered right; % = percentage frequency.

When we analyzed the knowledge that the patients had before and after the implementation of nursing interventions, it was observed that there was an increase in this understanding, since the number of correct answers for each of the topics of Batalla test increased.

Health education emerges as an important strategy, because it enables and makes them

autonomous individuals to make their decisions, through a reflection/action/reflection, in the pursuit of better health and wellness.¹⁶ Knowledge about the disease and treatment is a factor that can influence the control of hypertension that, in turn, is intrinsic to treatment adherence.¹⁷

Despite the significant increase in the knowledge of hypertension after the nursing

actions, some test questions (control with diet/drugs and organs affected by high BP) still deserve to be discussed, i.e., educational activities must continue.

The construction of knowledge, in relation to health promotion, is a process that needs to be done steadily and continuously, and must have the individual and collective participation both in the family sphere and in social groups.¹⁸

CONCLUSION

The study showed that, among 72 patients with hypertension treated in a health unit of Primary Care in Crato, 10 presented the nursing diagnosis Noncompliance to some aspect of antihypertensive treatment, with the frequency of occurrence of diagnosis of 13.8%. Of the patients with the diagnosis, eight were targets of individual educational activities, as two were not localized.

The application of educational nursing actions in the home environment had favorable results for adherence to antihypertensive treatment. It was observed increase in the understanding of hypertension, proper use of drugs (dose, interval, purpose and time of use), reduction of consumption of fat, salt and alcohol, increased physical exercise and increased use of herbal substances with correct orientation.

After the actions, there was a reduction in the number of patients who showed the causes "forgetfulness", "cannot exercise" and "do not like exercising" as limiting the treatment follow-up. Another positive aspect was the growth in adherence rate to therapy, because after the educational activities, the number of adherent patients increased by 50%.

Other aspects did not have alterations after the actions as, for example, the rate of smoking, stress control, knowledge of the names of drugs used, difficulty in following the recommended diet and treatment regimens (difficulty in taking medication and not understanding medical prescription). Therefore, these aspects should be worked tirelessly by nurses through new educational strategies that may involve and awaken in patients greater awareness about the importance of adherence to treatment of hypertension.

It is worth adding that, during the health education period, collective actions have also been applied in the Basic Health Unit in order to minimize the ignorance of the population about hypertension and promote exchange of experiences and support among hypertensive

patients, providing adherence to anti-hypertensive treatment. However, the actions did not have the constant presence of patients with the diagnosis Noncompliance, which was the target audience, so interventions became only individual.

It was found as difficulty the rush of some participants to answer questions, the lack of space in the Basic Health Unit to perform educational actions and difficulty in locating the homes of patients.

This study was relevant to the care practice of nursing by demonstrating the use of a nursing diagnosis as a tool for effective targeting of actions and for educational activities have a favorable impact on the quality of life of patients. Thus, the study awakens the importance of promotion and prevention of health through educational activities in hypertensive patients as the main intervention strategy to increase adherence to antihypertensive treatment.

The nursing actions applied were valid, however, they need to be continued and persistent, as change in lifestyle of a population is something that is achieved in the long term for being difficult the acceptance of the population in general. Moreover, performance and monitoring are extremely relevant not only of nursing field but also of the whole multidisciplinary team, since the hypertensive patient needs, generally, interventions that are beyond the competence of a single professional. There is also the need for partnerships with the community and family in order to contribute to adherence to agreed therapy, reducing the incidence or delay of occurrence of complications and improving quality of life for patients.

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