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ORIGINAL ARTICLE

ADHERENCE TO THE DRUG TREATMENT OF BLOOD HYPERTENSION AND ASSOCIATED FACTORS

ADESÃO AO TRATAMENTO MEDICAMENTOSO DA HIPERTENSÃO ARTERIAL E FATORES ASSOCIADOS

ADHESIÓN AL TRATAMIENTO MEDICAMENTOSO DE LA HIPERTENSIÓN ARTERIAL Y FACTORES ASOCIADOS

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ABSTRACT

Objective: to identify the degree of adherence to the drug treatment of patients with systemic arterial hypertension. ***Method:*** quantitative, sectional study. Sixty hypertensive patients cared for at a basic health unit, participated. Data collection was carried out through the application of a questionnaire based on the Morisky-Green Test plus sociodemographic and clinical questions. ***Results:*** of the 60 hypertensive patients, 10% had high adherence to drug treatment; 46.7%, mean adherence and 43.3% presented low compliance. The majority (95%) believed to have been sufficiently informed about SAH and its treatment. The factors that were associated with low adherence to therapy were age less than 60 years (p = 0.038) and discomfort when not taking medication (p = 0.023). ***Conclusion:*** adherence to drug treatment for arterial hypertension is influenced by multiple factors, which reveals the need for individualized and innovative interventions that contemplate the reality of each subject, favor adherence to therapy and the consequent improvement of quality of life. ***Descriptors***: Arterial Hypertension; Adherence to Medicine; Nursing; Quality of Life; Drug Therapy; Public Health.

RESUMO

Objetivo: identificar o grau de adesão ao tratamento medicamentoso de portadores de hipertensão arterial sistêmica. ***Método:*** estudo quantitativo, seccional. Participaram 60 usuários hipertensos atendidos em uma unidade básica de saúde. A coleta de dados foi realizada por meio da aplicação de um questionário baseado no Teste de Morisky-Green acrescido de questões sociodemográficas e clínicas. ***Resultados:*** dos 60 hipertensos, 10% apresentavam alta adesão ao tratamento medicamentoso; 46,7%, média adesão e 43,3% apresentaram baixa adesão. A maioria (95%) acreditava ter sido suficientemente informada sobre a HAS e seu tratamento. Os fatores que se mostraram associados à baixa adesão à terapia foram idade menor de 60 anos (p=0,038) e desconforto quando não toma medicação (p=0,023). ***Conclusão:*** a adesão ao tratamento medicamentoso para a hipertensão arterial é influenciada por múltiplos fatores, o que revela a necessidade de intervenções individualizadas e inovadoras que contemplem a realidade de cada sujeito, favoreçam a aderência à terapia e a consequente melhoria da qualidade de vida. ***Descritores***: Hipertensão Arterial; Adesão à Medicação; Enfermagem; Qualidade de Vida; Terapia Medicamentosa; Saúde Pública.

RESUMEN

Objetivo: identificar el grado de adhesión al tratamiento medicamentoso de portadores de hipertensión arterial sistémica. ***Método:*** estudio cuantitativo, seccional. Participaron 60 usuarios hipertensos atendidos en una unidad básica de salud. La recolección de datos se realizó a través de la aplicación de un cuestionario basado en la prueba de Morisky-Green acrecidos de las cuestiones socio-demográficas y clínicas. ***Resultados:*** de los 60 hipertensos, 10% presentaba alta adhesión al tratamiento medicamentoso; 46,7%, media adhesión y 43,3% presentaron baja adhesión. La mayoría (95%) creía haber sido suficientemente informada sobre la HAS y su tratamiento. Los factores que se mostraron asociados a la baja adhesión a la terapia fueron edad menor de 60 años (p = 0,038) y molestias cuando no toma medicación (p = 0,023). ***Conclusión:*** la adhesión al tratamiento medicamentoso para la hipertensión arterial es influenciada por múltiples factores, lo que revela la necesidad de intervenciones individualizadas e innovadoras que contemplan la realidad de cada sujeto, favorezcan la adherencia a la terapia y la consecuente mejoría de la calidad de vida. ***Descriptores***: Hipertensión Arterial; Adhesión a la Medicación; Enfermería; Calidad de Vida; Tratamiento Farmacológico; Salud Publica.

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INTRODUCTION

Systemic Arterial Hypertension (SAH) is a chronic disease that acts as the main risk factor for complications such as stroke, acute myocardial infarction and chronic kidney disease. It is the most frequent cardiovascular disease in the world affecting more than 50% of individuals with 60 to 69 years and 75% of the population over 70 years old. In addition, this number is increasing and its presence is becoming more precocious even affecting children and adolescents.[1]

According to national and international studies, arterial hypertension is considered a serious public health problem because it is associated with a high morbidity rate and because it is one of the main causes of preventable death in the world. This necessitates strategic measures involving health promotion, disease prevention, as well as the prevention of complications associated with SAH.[2]

Among the measures for coping with the problem, the following stand out: non-pharmacological and pharmacological treatments.[1] The first is directly associated with changes in personal life habits such as diet, daily sodium intake, smoking, physical exercise and alcohol consumption. Concomitant to it, some individuals may still require pharmacological treatment requiring, for its effectiveness, discipline in the use of some drugs that normally cause the presence of uncomfortable adverse effects.[1]

The diagnosis and treatment of Arterial Hypertension are often neglected because the disease often has an asymptomatic and silent development.[3] Thus, in spite of the diverse existent recommendations, programs and protocols, adherence to the proposed treatment, is still low on the part of the patient.[3]

Thus, it is extremely important to know the factors associated with drug treatment adherence for a better planning of therapeutic strategies in order to obtain satisfactory results for adherence.[4]

OBJECTIVE

- To identify the degree of adherence to the drug treatment of patients with systemic arterial hypertension, correlating it with the factors associated with low adherence to drug therapy.

METHOD

This is a sectional study, of a quantitative nature, carried out with users with systemic arterial hypertension cared for at a basic health unit in the city of Rio de Janeiro.

The data collection was carried out from September to October 2016, at the time of the Nursing visit, through the application of a questionnaire based on the Morisky-Green Test (MGT) plus sociodemographic and clinical questions.

It was used the MGT version composed of four questions that seek to categorize the level of adhesion as low, medium or high, and a fifth question that seeks to evaluate knowledge. Each of the four questions has a score that, when added, determines a score corresponding to the level of adherence of the interviewee.

The data was processed using the Excel 2010 and Epi-Info programs, version 3.5. Univariate and bivariate analyses were carried out. For the bivariate analysis, the chi-square statistical test was calculated considering the level of significance of 5% ($p < 0.05$).

The ethical and legal aspects required by Resolution 466/2012 were respected and the participants signed the Free and Informed Consent Term. The study was approved by the Research Ethics Committee of the Anna Nery School of Nursing under opinion no. 29/08.

RESULTS

A total of 60 people with a diagnosis of systemic arterial hypertension were interviewed, both men and women, who used medication of continuous use for the disease. According to the classification obtained by means of the Morisky-Green test, 10% of these individuals had a high adherence to the drug treatment of hypertension, while 43.3% had low adherence, as shown in table 1.

Table 1. Degree of adherence to drug treatment according to the Morisky-Green Test. Rio de Janeiro (RJ), Brazil, 2016.

Morisky-green classification	n	%
Low Adhesion	26	43.3%
Medium Adhesion	28	46.7%
High Adhesion	6	10%
Total	60	100%

Regarding the level of knowledge about the importance of treatment, the majority of respondents (95%) reported believing that they had been sufficiently informed by the professionals who accompanied or already followed the treatment, regarding the importance of following the drugregimen properly, as can be seen in Chart 1.

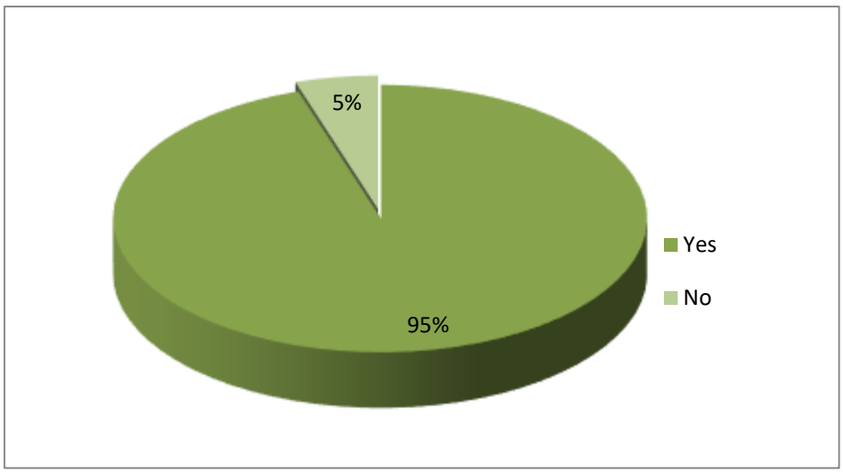

Figure 1. Distribution of respondents according to the knowledge about the importance of follow-up treatment. Rio de Janeiro (RJ), Brazil, 2016.

Table 2 shows the association of the characteristics of hypertensive users with the degree of adhesion obtained by the Morisky-Green Test. Among these characteristics, it was verified that the majority of the interviewees (56.7%) were female and had medium adherence, whereas the majority of men (53.8%) had low adherence.

As for age, 60% were over 60 years old. In this group, the incidence of low adherence to treatment was lower, while individuals aged between 40 and 60 years and under 40 years presented low adherence rates equal to 68.4% and 60%, respectively.

Regarding race / color, the population declaring itself to be black represented an absolute majority (55%), followed by white / yellow (36.7%) and a minority brown/ indigenous (8.3%). The latter group had the highest percentage of low adherence (80%) and the worst rate of high adherence (0%). The majority of the black population (45.5%) had low adherence, while the absolute majority of the white / yellow population (59.1%) presented average adhesion.

Regarding schooling, the group with only incomplete elementary education represents 40% of respondents and presents the highest rates of low adherence and lower rates of high adherence. Low enrollment rates decreased as schooling increased.

Of the individuals diagnosed with Arterial Hypertension less than five years ago, 80% had low adherence to drug treatment, while none had high adherence. With regard to those diagnosed for more than 20 years, only 20% had low adherence and 60% had medium adhesion.

In the study group, 75% had a family history of hypertension. Of these, the majority (48.9%) presented medium adhesion, whereas the majority of individuals without a family history of the disease (53.3%) had low adherence.

Most people - 63.3% - said they do not feel any kind of discomfort when they do not take the medication. Of these, 52.6% presented medium adhesion, whereas 63.6% of those who reported discomfort had low adhesion.

Of the total, 70% of respondents present some comorbidity. Most of these subjects had low or medium adherence to drug therapy, however, levels of adherence among individuals with and without comorbidities showed no significant difference.

Of the individuals who were hypertensive at the time of the interview, that is, with blood pressure equal to or greater than 140x90mmHg, the absolute majority (56%) had low adherence to drug treatment and only 4% had high adherence.

Table 2. Distribution of the interviewed population regarding the level of adherence to drug treatment and associated variables. Rio de Janeiro (RJ), Brazil, 2016.

Variables			MORISKY-GREEN TEST			
			LOW ADHERENCE	MEDIUM ADHERENCE	HIGH ADHERENCE	P
IDENTIFICATION	SEX					
	Male	26 (43.3%)	14 (53.8%)	10 (38.5%)	2 (7.7%)	
	Female	34 (56.7%)	14 (41.2%)	17 (50%)	3 (8.8%)	0.617
	AGE					
	<40 years	5 (8.3%)	3 (60%)	1 (20%)	1 (20%)	
	40 - 60 years	19 (31.7%)	13 (68.4%)	5 (26.3%)	1 (5.3%)	
	> 60 years	36 (60%)	10 (27.8%)	22 (61.1%)	4 (11.1%)	0.038
	RACE / COLOR					
	White / Yellow	22 (36.7%)	7 (31.8%)	13 (59.1%)	2 (9.1%)	
	Black	33 (55%)	15 (45.5%)	14 (42.4%)	4 (12.1%)	
	Brown	5 (8.3%)	4 (80%)	1 (20%)	0 (0%)	0.338
	SCHOOLING					
	Incomplete Elementary school	24 (40%)	13 (54.1%)	10 (41.7%)	1 (4.2%)	
	Complete Elementary school	16 (26.7%)	7 (43.8%)	7 (43.8%)	2 (12.5%)	
	Complete high school	14 (23.3%)	5 (35.7%)	6 (42.9%)	3 (21.4%)	
	Full Higher Education	6 (10%)	1 (16.7%)	5 (83.3%)	0 (0%)	0.312
HISTORY OF HYPERTENSION	YEARS OF HAS					
	<5 Years	10 (16.7%)	8 (80%)	2 (20%)	0 (0%)	
	5 - 10 Years	21 (35%)	9 (42.9%)	8 (38.1%)	4 (19%)	
	11 - 15 Years	12 (20%)	4 (33.3%)	8 (66.7%)	0 (0%)	
	16 - 20 Years	7 (11.7%)	3 (42.9%)	4 (57.1%)	0 (0%)	
	> 20 Years	10 (16.7%)	2 (20%)	6 (60%)	2 (20%)	0.090
	FAMILY HISTORY					
	Yes	45 (75%)	18 (40%)	22 (48.9%)	5 (11.1%)	
	No	15 (25%)	8 (53.3%)	6 (40%)	1 (6.7%)	0.646
	DISCOUNT WHEN YOU DO NOT TAKE MEDICATION					
	Yes	22 (36.7%)	14 (63.6%)	8 (36.4%)	0 (0%)	
	No	38 (63.3%)	12 (31.6%)	20 (52.6%)	6 (15.8%)	0.023
	PRESENCE OF COMORBIDADES					
	Yes	42 (70%)	19 (45.2%)	19 (45.2%)	4 (9.6%)	
	No	18 (30%)	7 (38.9%)	9 (50%)	2 (11.1%)	0.90
BLOOD PRESSURE	BLOOD PRESSURE					
	Normotens	15 (25%)	4 (26.7%)	9 (60%)	2 (13.3%)	
	Bordering	20 (33.3%)	8 (40%)	9 (45%)	3 (15%)	
	Hypertensive	25 (41.7%)	14 (56%)	10 (40%)	1 (4%)	0.364

Table 2 showed that the factors that showed a significant association with low adherence to therapy were: age under 60 years (p = 0.038) and discomfort when not taking the medication (p = 0.023).

DISCUSSION

Adherence to drug treatment is an issue that involves multivariate factors5 presenting itself as a great challenge for the care of the hypertensive patient. In view of this, identifying the level of adherence of individuals to the therapeutic proposal, as well as its associated factors, represents an advance in the search for a quality care, mainly in the scope of Primary Care.

When identifying that the high adherence to the treatment is limited to a small minority of the interviewed, while the great majority is distributed between low and medium adherence, it is possible to comment on the impact of this fact on the control of the Blood Pressure and, consequently, the treatment of the Hypertension. The poor use of drug therapy reduces therapeutic outcomes, especially in chronic diseases, and increases the risk of complications.[6] In addition, non-adherence to treatment associated with other sociodemographic factors is one of the main reasons for seeking services emergency.[7]

Median adherence on the part of the interviewees demonstrates the awareness of the need for self-care associated with the

difficulties of continuous treatment, since it is influenced by several dimensions8 and involves not only taking the drug or not, but if there is a respect by the dose, times, frequency, among others.[6]

It was possible to observe that the vast majority of respondents believe that they have been sufficiently informed about their illness and the importance of following the treatment correctly. Thus, it can be seen that, in general, individuals do not assign guilt / responsibility to professionals for low adherence. However, this data does not allow for the evaluation of the quality of the information provided to the client and, thus, to estimate if the level of adherence to the therapy has some relation of proportionality with the degree of involvement of the professional in the care to the patient.

In addition, the aforementioned data may be underestimated, since it is not known, to be sure, the understanding of these subjects regarding the real role of the health professional in the educational process. It is worth mentioning that dissatisfaction with the health service, poor professional-patient relationship, as well as unsatisfactory knowledge about the disease are associated with non-adherence to treatment[9], thus evidencing the importance of health education as a strategy to improve accession.

According to the literature, the prevalence of low adherence in males is predominant, which may be a consequence of men's lesser concern with their own health and lower attendance at health units.[10] However, the difference in the high values men and women, was not significant, demonstrating the need for strategic measures to address this entire population, regardless of gender.

Regarding the age, the observed in this study confirms that the elevation of age is usually related to the lower probability of not following the therapy and that, in general, young people do not feel as vulnerable as the elderly making treatment difficult.[11]

However, the rate of high adherence did not increase with age, which leads to the hypothesis that although there is a greater attempt to follow the treatment, there may be the elderly person's difficulty in administering the correct use of medications. Some studies justify this fact by saying that the elderly in general tend to act according to their socially shared opinions and experiences.[12]

The verified color / race data differ from some literature that report a higher prevalence of low adherence to treatment in the black self-declaring population, [12] whereas in this study this position was occupied by the brown / indigenous population. The black population occupied the place of second worst rate of low adherence. However, the observation is in line with a study that states that both black and brown / indigenous populations have the lowest rates.[2]

Regarding schooling, there was an inverse proportionality, that is, there was a significant reduction in the rate of non-adherence, according to the increase in schooling, demonstrating compliance with literature that affirms that lower levels of schooling are related to low adherence to drug therapy.[2]

One of the great impasses of low educational level in treatment may be illiteracy; however, a strategy to circumvent it may be through the use of pictorial prescription.[13] Thus, there is a need for recognition by the health teams of the Primary Care, the difficulties related to the reading and interpretation of the prescription, as well as the implementation of the illustrated prescriptions for patients who need them.

With regard to the history of hypertension, a longer diagnostic period is associated with low adherence, since living with the chronic nature of the disease could lead patients not to recognize themselves as patients.[3] However, in this study, the index of low adherence seemed to decrease as the time to diagnosis of hypertension increased. It is inferred then that, for this population, individuals tend to be more concerned when they perceive the permanent nature of the disease.

Some authors of the literature point to a low adherence related to the absence of symptoms, which could transmit the sensation of cure and lead to the abandonment of the treatment.[3] However, the result of this study identified a higher prevalence of low adherence associated with the presence of discomfort - when medication is not given - than in the absence of the medication.

However, this result may be implausible since, within the universe of people who stated that they did not feel discomfort, there were also those who stated that they did not stop using the medication under any circumstances and therefore had no symptoms or discomforts.

Regarding the presence of comorbidities, the literature suggests that non-adherence to drug treatment decreases by increasing the number of chronic diseases.[2-5] In the current

study, adherence levels among individuals with and without comorbidities showed no significant difference.

As for family history, it was identified that the majority of people with no history of hypertension in the family had low adherence. Data related to this factor was not found in the literature obtained from the literature review, however, it is possible to question the possibility that non adherence to treatment in this group is related to the lack of conviviality with the disease and its consequences.

The result of the blood pressure of the interviewees confirms that the lack of adherence to the therapy is directly related to an ineffective blood pressure control.[14-7] Therefore, this data can be used as a way of proving to the patient, about the risk of uncontrolled blood pressure and other complications contributing to the process of convincing adherence to the therapeutic regimen.

It is also worth noting that the failure to control blood pressure, evidenced as a direct consequence of a low adherence to treatment, progressively increases the chance of mortality due to cardiovascular disease[1] and, consequently, increases public health expenditures.

It is possible to verify, then, that the treatment of the hypertensive, as well as the factors that influence it, is complex and multivariate covering the physical, psychological, economic and social dimension and, thus, requires a shared work within the health teams.[4-5,10-1,18]

The collective activities of health education are of paramount importance, as well as individualized monitoring[15], exercising the recognition of the demands and difficulties of each subject so that a unique therapeutic plan can be drawn in which one must always promote the support and encouragement of autonomy and self-care.

The study in question presented limitations due to the impossibility of generalization of the results according to the restricted number of participants. In addition to this limitation, the adopted method of investigation, of the sectional type, does not make it possible to establish the relation cause and effect. However, the contribution of sectional studies in the construction of scientific knowledge in the area of public health and nursing is highlighted. It is suggested that new studies be carried out with a representative sample of arterial hypertension users attending the basic health units of the municipality, allowing the comparison of the results already found.

CONCLUSION

The results indicated that most of the hypertensive individuals interviewed had low or medium adherence to the drug treatment, which makes it difficult to control the Blood Pressure and increases the probability of complications from SAH. Most believe they have been sufficiently informed about hypertension and its treatment. The factors that were associated with low adherence to therapy were age less than 60 years ($p = 0.038$) and discomfort when not taking medication ($p = 0.023$).

Thus, the study allowed confirmation that the level of adherence of a hypertensive to drug therapy is influenced by multiple factors that may interfere positively or negatively. With this in view, and knowing that adequate follow-up of the therapeutic regimen is essential for the control of arterial hypertension, investments, mainly in the Primary Care area, that qualify care for the hypertensive.

It is important, therefore, to identify the level of adherence to the treatment of each patient, as well as the related factors and the difficulties involved in this process, in order to create individualized and innovative strategies that contemplate the reality of the subject and favor adherence to therapy and the consequent improvement of the quality of life. Physical, psychological, cultural and social aspects should also be considered when adapting the therapeutic plan, as well as encompassing the family and placing the individual as the subject of care itself, working the logic of autonomy and accountability.

Finally, it is valid to invest in the professional-patient relationship, stimulating the bond and trust with each member of the multiprofessional team, and especially to raise awareness about the costs of non-adherence to therapy and the impact of this attitude towards the public health system.

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