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INTEGRATIVE REVIEW OF THE LITERATURE

Fatores associados à não adesão ao tratamento da hipertensão arterial sistêmica: uma revisão integrativa

Factors associated with non-adherence to treatment of hypertension: an integrative review

Los factores asociados con la falta de participación en el tratamiento de la hipertensión: una revisión integradora

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ABSTRACT

Objective: evaluating the evidence available in the literature about the factors related to non-adherence to treatment of hypertension in the period 2010 to 2014. **Method:** the authors conducted an integrative review on databases MEDLINE, LILACS and BDNF, conducted by the following guiding question: What is the production of knowledge about the factors associated with non-adherence of patients to antihypertensive therapy? The descriptors used in the search for studies were: hypertension, patient's compliance and medication adherence. After applying the inclusion criteria there were selected 10 studies for analysis and synthesis. **Results:** there were identified as main factors related to non-adherence to treatment the low level of education, oblivion of drugs, and the low level of knowledge about the disease and treatment regimen. **Conclusion:** many factors imply the phenomenon of non-adherence. Thus, it suggests the deepening of the theme and the use of strategies to increase adherence to treatment. **Descriptors:** Hypertension, Patient compliance, Medication adherence.

RESUMO

Objetivo: avaliar as evidências disponíveis na literatura sobre os fatores relacionados à não adesão ao tratamento da hipertensão arterial sistêmica no período de 2010 a 2014. **Método:** realizou-se uma revisão integrativa nas bases de dados MEDLINE, LILACS e BDNF, conduzida pela seguinte questão norteadora: qual a produção de conhecimento sobre os fatores associados a não adesão de pacientes à terapia anti-hipertensiva? Os descritores empregados na busca pelos estudos foram: hipertensão, cooperação do paciente e adesão à medicação. Após aplicação dos critérios de inclusão foram selecionados 10 estudos para análise e síntese. **Resultados:** identificaram-se como principais fatores relacionados à não adesão ao tratamento o baixo nível de escolaridade, o esquecimento dos medicamentos, o baixo nível de conhecimento sobre a doença e regime terapêutico. **Conclusão:** inúmeros fatores implicam no fenômeno da não adesão, assim, sugere-se o aprofundamento da temática e o uso de estratégias para aumentar a adesão ao tratamento. **Descritores:** Hipertensão, Cooperação do paciente, Adesão à medicação.

RESUMEN

Objetivo: evaluar la evidencia disponible en la literatura sobre los factores relacionados con la falta de participación al tratamiento de la hipertensión en el período 2010 a 2014. **Método:** los autores realizaron una revisión integradora a partir de las bases de datos MEDLINE, LILACS y BDNF, llevada a cabo por la siguiente pregunta guía: Cuál es la producción de conocimiento acerca de los factores asociados con la falta de participación de los pacientes a la terapia antihipertensiva? Los descriptores utilizados en la búsqueda de los estudios fueron: hipertensión, el cumplimiento del paciente y la aceptación de la medicación. Después de aplicar los criterios de inclusión se seleccionaron 10 estudios para el análisis y la síntesis. **Resultados:** se identificaron como principales factores relacionados con la falta de participación en el tratamiento el bajo nivel de educación, el olvido de la medicación, el bajo nivel de conocimiento acerca del régimen de la enfermedad y el tratamiento. **Conclusión:** hay muchos factores que implican el fenómeno de la falta de participación, por lo tanto sugiere la profundización del tema y el uso de estrategias para aumentar la participación al tratamiento. **Descriptor:** Hipertensión, Cooperación del paciente, Cumplimiento de la medicación.

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INTRODUCTION

The number of people with systemic hypertension (SH) is increasing and it is estimated that in Brazil, about 30 million people are hypertensive. In this sense, hypertension becomes a relevant public health problem due to its high prevalence and low control. Additionally, it is configured as one of the most important risk factors for the development of cardiovascular, cerebrovascular diseases and renal.¹

Given the above, one cannot deny that after diagnosis of the disease, it is necessary to patient adherence to treatment, considering that failure to follow the treatment regimen can have a negative impact on the health of people suffering from chronic conditions such as SAH.^{2,3}

With regard to non-medication adherence, it is emphasized that it is critical point for solvability of a treatment. In addition, an event is influenced by several factors, among them, related to the patient, the system and the health team, disease, treatment and socioeconomic factors.^{4,5}

It has been noticed that scholars defend the idea that the success of antihypertensive treatment depends significantly from patient adherence to prescription of drugs. However, the literature has shown low levels of adherence to drug therapy. A survey carried out in a health center examined adherence to antihypertensive treatment, in 90 patients. Among the participants, only 28% showed adherence to drug treatment.⁶

In this scenario, it should make clear that nurses are health professionals trained to play a key role in promoting adherence, ensuring patients an understanding of the need for treatment and identifying the main barriers related to this phenomenon.

Non-adherence shows up with a complex, multidimensional and one of the most frequent causes of treatment failure phenomenon, since the treatment is not restricted to drug therapy and follow-up from the requirements of healthcare professionals.⁵ Thus, it is justified the quest for understanding the phenomenon of non-compliance in order to support changes in health care for the patient being treated with anti-hypertensives.

Thus, this study aimed to evaluating the scientific evidence available in the literature on the factors associated with non-adherence to treatment of hypertension in the period 2010-2014.

METHOD

It is an integrative literature review, which is a broad mode to investigate existing studies to draw conclusions about a particular topic. A relevant strategy to identify the evidence is considered, basing the practice of health in different specialties.⁷

In developing the present integrative review, the recommended methodological procedures were followed in the literature, namely: 1) Formulation of the issue and review of objectives; 2) Establishment of criteria for selection of articles; 3) Categorization of studies; 4) Evaluation of the studies included in the integrative review; 5) Interpretation of the results; 6) Synthesis of knowledge.⁸

In order to conduct this review, we formulated the following guiding question: What is the production of knowledge about the factors associated with non-adherence of patients to anti-hypertensive therapy?

The search for studies was carried out in three electronic databases in order to broaden the scope of research, minimizing possible bias in this stage of development of integrative review process, namely: LILACS (Latin American and Caribbean Social Sciences of Health); MEDLINE (International Literature on Health Sciences) and BDNF (Nursing Database).

According to the inclusion criteria, the items should be available in full, aimed at the object of study, published in English, Spanish or Portuguese, with abstracts available in selected databases and published between January 2010 and December 2014.

The articles were initially selected in the form of summaries, and then were analyzed in full. In the survey of the studies, the crossing was carried out jointly Descriptors of Health Sciences (DeCS) using the Boolean and operator with the following schedule: (Hypertension and Patient Compliance and Medication Adherence).

Data collection took place between March and April 2015, from an instrument developed by the researchers, using the Microsoft Office Excel 2010 software. In the search performed there were found 394 articles in three databases, and 366 in MEDLINE 26 in LILACS and BDNF in 2 of these, 344 were available in full.

After eliminating duplications, publications were pre-selected based on the reading of the title and abstract. In this context, it was possible to select 26 items with potential to compose the final sample, but only ten contained answers to the question asked.

The analysis and subsequent synthesis of the articles that met the inclusion criteria were conducted through the construction of frames especially for this purpose, containing the items: title; year; parents; method and the main factors of non-adherence to treatment.

RESULTS AND DISCUSSION

Become evident, based on Figure 1, the characteristics of selected studies. For the year of publication, two were published in 2011, three in 2012, three in 2013 and two in 2014, showing that there were gaps publications following the years in the period surveyed. Most have been published in Brazil and the other in Nigeria and the USA. About the design of the study, it prevailed the cross-sectional method.

Article title	Year	Country	Type of study
Factors Associated with Treatment Compliance in Hypertension in Southwest Nigeria	2011	Nigeria	Cross
Barriers to treatment of hypertension	2011	Brazil	Descriptive-cross
Nursing diagnosis lack of adherence in patients with arterial hypertension program	2012	Brazil	Exploratory
Factors associated with adherence to antihypertensive treatment in basic health unit	2012	Brazil	Descriptive-exploratory
Factors Associated with Non-Adherence to Three Hypertension Self-Management Behaviors: Preliminary Data for a New Instrument	2012	USA	Cross
Therapeutic adhesion characteristics in people with hypertension and nursing diagnosis "lack of adherence" in primary care	2013	Brazil	Cross
Factors that interfere with drug therapy adherence in hypertensive patients	2013	Brazil	Non-experimental descriptive
Adherence to the pharmacological treatment and pharmacological not and associated factors in primary hypertension	2013	Brazil	Exploratory-cross
Adherence to the outpatient clinical treatment of hypertension	2014	Brazil	Cross
Knowledge about hypertension and factors associated with non-adherence to pharmacotherapy	2014	Brazil	Descriptive-cross

Figure 1. Characterization of scientific publications according to title, year, location and type of study. Teresina-PI, 2015.

According to Figure 2, the selected studies showed multiple factors that predispose to hypertensive people do not adhere to treatment. From the evaluation of the content of the publications there were identified, in general, the main predictors that interfere in the accession process to the treatment, namely: factors related to the therapeutic regimen, the socioeconomic and demographic indicators, services and health professionals, to personal and psychosocial aspects.

Authors/Year	Factors associated to non-adherence
Osamor; Owumi (2011) ⁹	Low level of knowledge about the disease, lack of adequate guidance, socio-economic aspects, stress and anxiety.
Guedes et al (2011) ¹⁰	Low financial conditions, continuous treatment with many drugs and practice of physical activity.
Bertoletti et al (2012) ¹¹	Deficient knowledge for the treatment regimen, Prejudice personal skills, lack of support from significant people, beliefs and values of the individual health/disease process-related, financial cost of treatment.
Demoner; Ramos; Pereira (2012) ⁴	Age, occupation, obesity, the absence of any other chronic illness, lack of employment of medicines for continuous use, lack of understanding of the medical recommendations and the ignorance of the name of the anti-hypertensive medicine used.
Crowley et al (2012) ¹²	Low level of education, lack of financial security, low health knowledge and high level of stress.
Nascimento et al. (2013) ¹³	Oblivion, medicines are not found in the health unit.
Daniel; Veiga (2013) ¹⁴	Oblivion of medicines intake; Side effects; Complexity of treatment regimen; High cost of medicines; Lack of access to medication; Treatment time; Fear of the use of medicines with alcohol; Insecurity regarding treatment; Stopping treatment; Change in living habits.
Giroto et al. (2013) ¹⁵	Oblivion and find that blood pressure was controlled.
Martins et al (2014) ¹⁶	Lack of medicines in the unit. Oblivion ingestion of the medicinal product.
Barreto; Reiners; Marcon (2014) ¹⁷	Pharmacotherapy complex, unsatisfactory knowledge about the disease and dissatisfaction with the health service.

Figure 2. Summary of main factors associated with non-adherence found in articles of this integrative review. Teresina - PI, Brazil, 2015.

The available literature about the non-adhesion hypertensive also is diluted. A likely explanation for this stagnation is the fact that researches address predominantly the adherence phenomenon. The results of an integrative review corroborate this claim, pointing out that several countries have been developing research on the adherence rates to drug treatment of hypertension in the world.¹⁸

With respect to non-patient adherence to antihypertensive treatment that stands out is still high, as people with hypertension do not define the disease as a health problem that needs treatment at the expense of absence of symptoms.¹¹

Based on these, the problem of non-adherence of the discussion and the identification of determinants of this phenomenon is of paramount importance to the implementation of care strategies and satisfactory results to achieve accession.

The phenomenon of non-adherence to anti-hypertensive treatment is complex because several factors may be associated^{4,19,20,21}. Specifically, this study prevailed as determinants of non-adherence to treatment to poor financial condition; low level of education; forgetfulness of drugs and the low level of knowledge about the disease and treatment regimen.

The lack of sufficient financial conditions was also found as a factor of non-adherence

to treatment in other studies. Such influence can be explained due to the cost of certain drugs which hinders access for those with little financial resources, because even with free access to certain medications, the Unified Health System (SUS), there are some limitations such as lack of knowledge of the right to medication and lack of suitability of the prescription to the financial condition of the patient.^{22,19}

In this sense, the nurse as a professional involved in that patient care process should pay attention to issues like this and implement a treatment plan that is viable for the patient, and also identify those subjects who are in socially vulnerable situations and clarify them about their rights.

Still about the socioeconomic variable, the level of education, it was named in a survey as an important factor for non-adherence especially low education levels associated with lower use of antihypertensive medications, since this variable is related to understanding the need to use the medication and the proper way to use them.²²

Another factor associated with non-adherence to treatment was forgetting of drugs, an issue that can be explained by the natural aging process whose lapses characteristic of memory and also by the fact that hypertension is a disease mostly asymptomatic time can lead the individual does not recognize as sick.¹⁹

Thus, the patient with self-perceived "good health" may have limitations in adherence to the therapeutic regimen, influenced by the absence of symptoms of the disease that leads people to have misleading concepts about the same restricting; thus the importance of treatment.²³

From this perspective, the health professionals who care for hypertensive patients should be aware that the asymptomatic nature of the disease tends not encourage drug use of memory, and the clarification of the disease is essential to make the assets subject patients before the treatment regimen prescribed.²⁴

For understanding the barriers of non-adherence to treatment of hypertension it is necessary to understand that most of the factors go beyond the individual, those involve many aspects and that adherence to treatment could be more effective if joint strategies were discussed and implemented by all health staff involved in therapy.

Accompanied by socioeconomic level, low level of knowledge about the disease and treatment regimen were the most prevalent factors in the studies analyzed, no more important than the others, this finding corroborates the results of other research. Knowledge about the disease and treatment can facilitate adherence to treatment, since their absence can generate anxiety, insecurity, and little importance to the treatment, forgetfulness and stress.²²

According to the above so far, it can be seen that the greater the level of patient knowledge about his disease greater commitment in self-care and adherence to treatment. Thus, it is the responsibility of the health care team to implement educational strategies aimed at increasing the level of knowledge about the disease and treatment, but there may be gaps in this process of information that may be related to professional, such as stress, insufficient knowledge, motivation, workload and remuneration, which ends up leaving the

educational aspect to be desired.²⁴

Another variable that has been described as a factor that affects non-adherence to drug therapy is the complexity of the therapeutic regimen, based on the number of doses, tablets and timing of taken, duration of treatment, failure of prior treatments, frequent changes in treatment and side effects. Research performed in primary care, with 422 hypertensive patients, showed that the high complexity of pharmacotherapy was more prevalent and significantly from those considered non-adherents¹⁷; however, the literature about this association is still conflicting.

At this point, it is emphasized that the discussion of non-adherence and ways to deal with it should include in addition to the individual aspects of patients, the organization of health services and activities of professionals involved in care²⁵, given that the occurrence of membership does not depend solely on the patient, but the elements that permeate this process.²⁰

CONCLUSION

Successful treatment of hypertension is directly related to adherence to treatment, therefore, aspects of the process of non-adherence should be thoroughly studied in order to identify them since non-adherence can lead to consequences and have a negative impact on quality of life of hypertensive patients.

The study made it possible to synthesize the production of knowledge about the factors that influence non-adherence to treatment of hypertension. During the analysis of publications, it was noted that the proposed theme is very current because of the difficulty that many patients with hypertension have to adopt effective measures in controlling blood pressure.

However, as it was difficult to compare this study with the literature, since there is a shortage of studies on non-adherence, which limited the discussion, since often the studies are not comparable, for addressing different profiles of individuals.

REFERENCES

1. Brasil, Ministério da Saúde. Pesquisa Nacional de Saúde 2013 Percepção do estado de saúde, estilos de vida e doenças crônicas. Brasília, DF, 2013.
2. Barbosa RGB, Lima NKC. Índices de adesão ao tratamento anti-hipertensivo no Brasil e mundo. *Rev Bras Hipertens.* 2006; 13(1): 35-38.
3. Sociedade Brasileira de Cardiologia, Sociedade Brasileira de Hipertensão e Sociedade Brasileira de Nefrologia. VI Diretrizes Brasileiras de Hipertensão Arterial: São Paulo, 2010.
4. Demoner MS, Ramos ERP, Pereira ER. Fatores associados à adesão ao tratamento anti-hipertensivo em unidade básica de saúde. *Acta paul. enferm.* 2012;25(n.spe1): 27-4.
5. Organização Mundial da Saúde. Adherence to long-term therapies- evidence for action. Geneva, Switzerland: WHO, 2003.
6. Eid LP, Nogueira MS, Veiga EV, Cesarino EJ, Alves LMM. Adesão ao tratamento anti-hipertensivo: análise pelo Teste de Morisky-Green. *Rev. Eletr. Enf.* 2013; 15(2): 362-67.
7. Whittemore R, Knafl K. The integrative review: updated methodology. *J Adv Nurs.* 2005; 52(5): 546-53.
8. Mendes KS, Silveira RCCP, Galvão CM. Revisão integrativa: método de pesquisa para a Incorporação de evidências na saúde e na enfermagem. *Texto Contexto Enferm.* 2008; 17(4): 758-64.
9. Osamor PE, Owumi BE. Factors associated with treatment compliance in hypertension in southwest Nigeria. *J Health Popul Nutr.* 2011; 29(6): 619-28.
10. Guedes MVC, Araujo TL, Lopes MVO, Silva LF, Freitas M, Almeida PC. Barreiras ao tratamento da hipertensão arterial. *Rev. bras. enferm.* 2011; 64(6): 1038-42.
11. Bertoletti AR, Costa AGS, Costa FBC, Oliveira ARS, Oliveira CJ, Araújo TL. Diagnóstico de enfermagem falta de adesão em pacientes acompanhados pelo programa de hipertensão arterial. *Rev Rene.* 2012; 13(3): 623-31.
12. Crowley MJ, Grubber JM, Olsen MK, Bosworth HB. Factors associated with non-adherence to three hypertension self-management behaviors: preliminary data for a new instrument. *J Gen Intern Med.* 2013;28(1): 99-06.
13. Nascimento ACG, Alves ACP, Almeida AIM, Oliveira CJ. Characteristics of therapeutic adherence in persons with hypertension and identification of the nursing diagnosis of "noncompliance" in Primary Care. *Rev. APS;* 2013; 16(4): 365-77.
14. Daniel ACQG, Veiga EV. Fatores que interferem na adesão terapêutica medicamentosa em hipertensos. *Einstein.* 2013; 11(3): 331-7.
15. Giroto E, Andrade SM, Cabrera MA, Matsuo T. Adesão ao tratamento farmacológico e não farmacológico e fatores associados na atenção primária da hipertensão arterial. *Ciênc Saúde Coletiva.* 2013; 18(6): 1763-72.
16. Martins AG, Chavaglia SRR, Ohl RIB, Martins IML, Gamba MA. Adesão ao tratamento clínico ambulatorial da hipertensão arterial sistêmica. *Acta paul. enferm;* 2014; 27(3): 266-27.

17. Barreto MS, Reiners AAO, Marcon SS. Know-ledge about Hypertension and Factors Associated with the Non-Adherence to Drug Therapy. *Rev. Latino-Am. Enfermagem*. 2014; 22(3): 491-98.
18. Borges, JWP, Moreira, TMM, Souza AC, Rodrigues MT, Oliveira CJ, Sousa AS. Métodos indiretos de avaliação da adesão ao tratamento da hipertensão: revisão integrativa. *Rev enferm UFPE on line*. 2014; 8(supl.3): 4131-8.
19. Santa-Helena ET, Nemes MIB, Neto JE. Fatores associados à não adesão ao tratamento com anti-hipertensivos em pessoas atendidas em unidades de saúde da família. *Cad Saúde Pública*. 2010; 26(12): 2389-98.
20. Dosse C, Cesarino CB, Martin JFV, Castedo MCA. Factors associated to patients' noncompliance with hypertension treatment. *Rev Latino-am Enfermagem*. 2009; 17(2): 201-6.
21. Borges JWP, Moreira TMM, Rodrigues MTP, Souza ACC, Silva DB. Validação de conteúdo das dimensões constitutivas da não adesão ao tratamento da hipertensão arterial. *Rev Esc Enferm USP*. 2013; 47(5): 1077-83.
22. Ferreira RA, Barreto SM, Giatti L. Hipertensão arterial referida e utilização de medicamentos de uso contínuo no Brasil; um estudo de base populacional. *Cad Saúde Pública*. Rio de Janeiro. 2014; 30(4): 815-26.
23. Lee GKY, Wang HHX, Liu KQL, Cheung YU, Morisky DE, Wong MCS. Determinants of Medication Adherence to Antihypertensive Medications among a Chinese Population Using Morisky Medication Adherence Scale. *PLOS ONE*. 2013; 8(4): 1-7.
24. Santos MVR, Oliveira DC, Arraes LB, Oliveira DAGC, Medeiros L, Novaes MA. Adesão ao tratamento anti-hipertensivo: conceitos, aferição e estratégias inovadoras de abordagem. *Rev Bras Clin Med*. 2013; 11(1): 55-61.
25. Remondi FA, Cabrera MAS, Souza RKT. Não adesão ao tratamento medicamentoso contínuo: prevalência e determinantes em adultos de 40 anos e mais. *Cad. Saúde Pública*. 2014; 30(1): 126-36.

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