

Hypertension in the elderly: Determining factors for non-adherence to drug therapy, potentiated by the Covid-19 pandemic



<https://doi.org/10.56238/globalhealthprespesc-064>

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ABSTRACT

Objective: To discuss and highlight in the literature the determining factors of non-adherence of elderly patients with RAS to drug therapy, potentiated by the COVID pandemic 19. **Material and method:** This is a literature review that aims at the analysis and synthesis of the determining factors for the non-adhering of the elderly with hypertension to drug treatment. We analyzed the publications produced between 2017 and 2022, with full texts and available in the Scientific Electronic Library Online (SciELO), Latin American and Caribbean Literature in Health Sciences (LILACS) and Google Scholar, in addition to the manual of the 7th Brazilian Guidelines on Arterial Hypertension and the World Health Organization (WHO). **Results:** The search in the databases resulted in the identification of 1,203 articles. After the final reading, 32 articles were selected that contemplated the objectives discussed in the development of this work. **Final considerations:** It was found that many factors interfere with the non-adherence of the elderly to drug therapy, factors that are linked to the elderly and the health system, as the patient presents difficulties in following the proposed therapeutic scheme, either due to its complexity, forgetfulness, adverse effect of the drug and its belief in alternative empirical drugs.

Keywords: Hypertension, Pharmacological treatment, Elderly, Therapeutic adherence.

1 INTRODUCTION

Systemic arterial hypertension (SAH) can be defined as a chronic multifactorial disease, evidenced by the increase in diastolic and/or systolic pressure ≥ 140 mmHg and/or ≥ 90 mmHg Queiroz et al. (2020). Despite its easy diagnosis and effectiveness of treatment using a diversified therapeutic arsenal, quite efficient and with few adverse effects, its control worldwide is difficult because it is often



an asymptomatic disease, which hinders adherence to care Jardim et al. (2019).

This comorbidity has a frightening prevalence globally, especially in the elderly population. The involvement in this population can be explained by physiological mechanisms inherent to the aging process itself, considering that with advancing age the stiffening of the arteries is part of the senescence process. According to Barroso et al. (2020), "with aging, Systolic Blood Pressure (SBP) becomes a more significant problem, resulting from progressive stiffening and loss of compliance of the great arteries" (p. 72). This makes age one of the main risk factors for SAH.

The factors that determine the non-adherence of the elderly with arterial hypertension to the medication treatment of SAH are not easy to understand, but scientific evidence shows that many factors can contribute to non-adherence to drug treatment, among them the difficulty of access to health services and medications; sociodemographic factors; problems in following complex therapeutic regimens; adverse effects; insufficient guidelines to understand and follow the prescriptions; ineffective relationship between patient and professional; among others. The same evidences also point out that cognitive deficit, low education and degree of dependence are relevant risk factors and that are strongly associated with non-adherence to antihypertensive treatment, especially medication in the elderly Luz et al. (2021).

It is also important to emphasize that for Vasconcelo et al. (2017), although the drugs for the control of arterial hypertension are freely available in the SUS, the frequent lack of these, results in the discontinuity of treatment and in the difficult control of blood pressure of the lower extracts, which favors abandonment and non-adherence to therapy.

The importance of the Unified Health System in the control of arterial hypertension and other health problems is unquestionable, however the difficulties presented by it, contribute significantly to the non-adherence to drug therapy, among many difficulties stand out the lack of knowledge and training of health professionals with regard to NCDs, the short time spent in the consultations and unavailability for follow-up, the lack of incentives and the inability to assess the degree of adherence. Especially the failure in surveillance, which is mainly configured in not emphasizing that the clientele that do not have regular consultations and that do not make regular surveillance of arterial hypertension are the least adherent to the therapy (Pinto et al., 2021).

One should also take into account the pandemic period that had its fuse in Brazil at the beginning of 2020 and intensified throughout the year, leaving many elderly unassisted, given that the population in question in addition to being the main risk group of contamination by the pathogen, social isolation and distancing policies, measures adopted to control the disease have made access to the BHU increasingly difficult (Cesário et al., 2021).

The follow-up of hypertensive elderly in Brazil takes place mainly at the level of primary health care, whose main care models are the Basic Health Unit (UBS) and the Family Health Strategy (FHS).



Although both strategies provide a significant contribution not only to the control of hypertension but also to other comorbidities, a study conducted in a large city in São Paulo aimed to verify adherence to the treatment of hypertension and other Chronic Non-Communicable Diseases (NCDs) in both models of care. It showed that in both models of care, adherence, especially adherence to drug therapy, was of concern (Almeida et al., 2019).

Nursing as a professional category plays a crucial role in the control and follow-up of patients with arterial hypertension. Since the professional nurse is the main actor in health education strategies and is closer to the community and patients, he is an important member of the multidisciplinary team in terms of raising the awareness of hypertensive elderly people about the severity of their disease and the importance of following drug treatment. Considering that the lack of awareness on the part of the elderly of the importance of following the therapy may reflect worsening of their chronic condition (Ramos et al., 2021).

Given the above, it is evident that adherence to drug treatment of hypertension is a common problem especially in the age group of the elderly and is the greatest challenge faced by health professionals in the adequate control of hypertension (Costa, 2020). Based on this assumption, this study aims mainly to discuss and evidence in the literature the determining factors of the non-adherence of elderly patients with SAH to drug therapy, in order to create scientific theoretical support that help health professionals to deal with the problem in question, acting on specific points in order to improve the quality of life of the elderly population with hypertension.

2 MATERIALS AND METHODS

This is a literature review that aims to analyze and synthesize the determining factors for the non-adherence of elderly patients with hypertension to drug treatment. The integrative review aims mainly to integrate findings of empirical and theoretical works, allowing the synthesis of results and the deepening of the understanding of a specific phenomenon. This facilitates the understanding of the theme in a broad, objective way and with vast information, allowing the scientific and theoretical knowledge of the reader (Casarin et al., 2020).

This study is based on the observation and inquiry that many social, demographic, and cultural factors, among others, compromise the follow-up of drug therapy among elderly patients with systemic arterial hypertension (SAH). And that have a negative impact on the control of the disease and on the quality of life of this population. Based on this assumption, the contents of articles published in full were analyzed, following the methodological rigor explained by authors with knowledge about the research in question (Mendes, Silveira & Galvão).

In the first stage, the theme or questioning of the integrative review was identified, consisting in the elaboration of the research question and the theme to be delimited for its construction. As well



as for the definition of the keywords to be used in the search strategy of the studies. As explained, the following question arose: What factors contribute to the non-adherence of the elderly with Systemic Arterial Hypertension (SAH) to drug therapy?

In the second stage, inclusion and exclusion criteria for studies were established from the literature search. For this purpose, studies were collected in databases to identify the studies to be excluded or included in the research. The following inclusion criteria were adopted: to be an eligible article published in full, to be available online, to be written in Portuguese, English or Spanish and to contemplate the achievement of the objectives of the proposal. Manuscripts that did not meet these criteria, or that were not related to the proposed theme, were discarded after careful and thorough reading of the title, abstract and introduction.

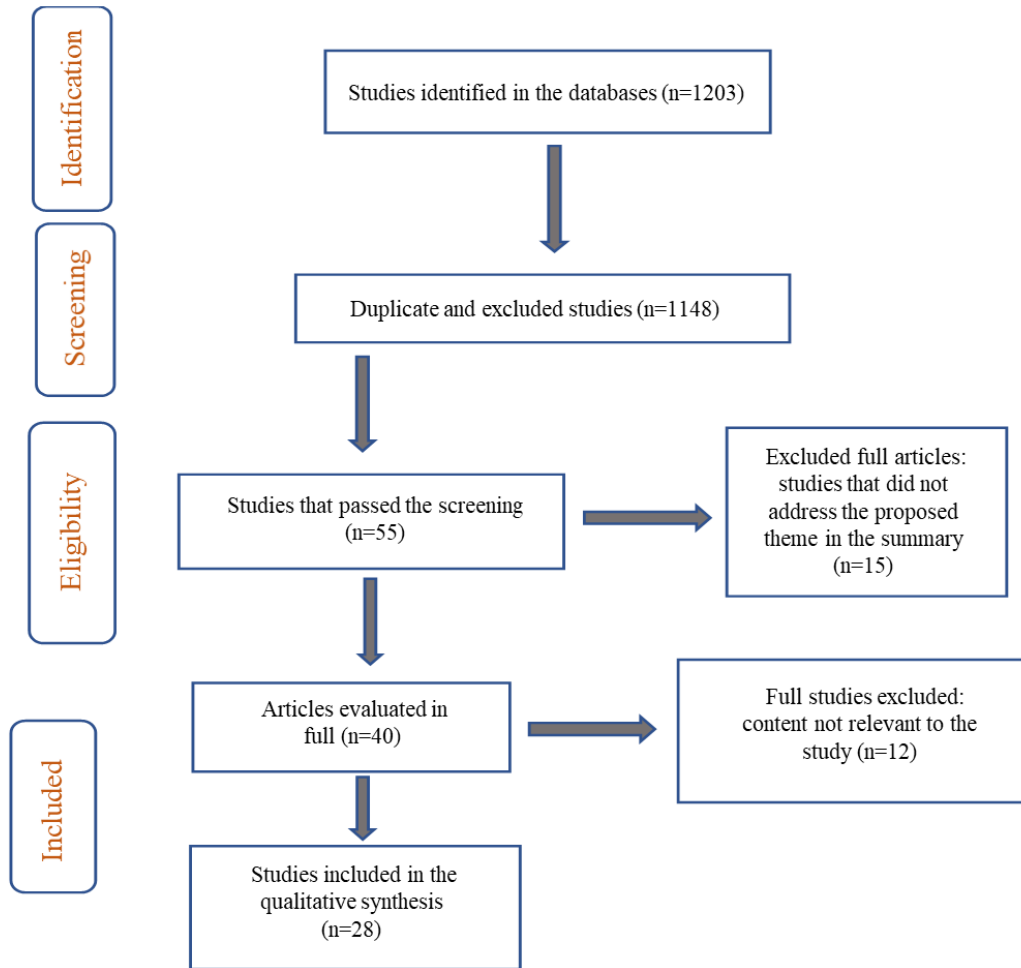
Subsequently, study descriptors were defined according to the Health Sciences Descriptors (DeCS). The descriptors were searched in combination using the Boolean operator "AND" in order to facilitate the search in the databases, namely: "arterial hypertension", "pharmacological treatment", "elderly" and "therapeutic adherence".

The stage corresponding to data collection was carried out from March to April 2022 and the publications produced between 2018 and 2022, with full texts and available in the databases Scientific Electronic Library Online (SciELO), Latin American and Caribbean Literature in Health Sciences (LILACS) and Google Scholar, as well as the manual of the 7th Brazilian Guidelines on Arterial Hypertension and the World Health Organization (WHO) in Portuguese or English, were analyzed.

The search in the databases resulted in the identification of 1,203 articles. Articles were excluded because they did not contemplate the proposed objective, for repetition or for not obeying the inclusion criteria, for duplicity and for not answering the guiding question. After the final reading, 32 articles were selected to be discussed in the development of this work. The methodological steps of selection of articles for the construction of this work are presented in the flowchart of Figure 1, as follows:



Figure 1. Prism flowchart: characterization of the number of articles searched in the databases: LILACS, SCIELO, GOOGLE SCHOLAR. Pinheiro-MA, November, 2022.



Source: Authors

3 RESULTS AND DISCUSSION

The table below presents the description of the bibliometric profiles of the selected articles. Included are: title of publication, author, type of study, objective, journal, year of publication and database in which the article was published.

Table 1. Description of the bibliometric profile of the selected articles

Title	Author(s)	Type of study	Goal	Magazine	Year of publication	Databas e
Adherence to therapy in people with hypertension	Pinto; Saraiva; Marques	Integrative review study	To know the facilitating and hindering factors of adherence to therapy in people with HTN	Egitania science	2021	Google Scholar



Adherence to antihypertensive treatment in the elderly with cognitive impairment	Luz; Griep; landim; Alencar; Macedo; Leal	Systematic review study	To analyze the influence of cognitive impairment on adherence to antihypertensive treatment in the elderly	Cogitare Nursing	2021	Scielo
Adherence to treatment and lifestyle habits of hypertensive patients	Dallacosta; Restellato; Turra	Cross-sectional study	To analyze adherence to antihypertensive treatment and lifestyle habits of hypertensive patients	Care is key	2019	Lilacs
Adherence to pharmacological treatment of hypertension in primary health care	Gewehr; Bandeira; Gellati; Colet; Oliveira	Cross-sectional study	To verify adherence to the pharmacological treatment of arterial hypertension and factors associated with low adherence in hypertensive patients enrolled in primary health care	Health debate	2018	Scielo
Adherence of the elderly to drug treatment at different levels of health care in the city of São Paulo, Brazil	Manso; Prado; Andrade; Mascarenhas	Experimental, cross-sectional study	To present how two groups of elderly people attended in two different public health services, in the city of São Paulo, the capital, experience their drug treatment	Magazine Kairos-gerontology	2018	Google Scholar
Therapeutic adherence in hypertensive elderly: an integrative review	Pinheiro; Santo; Sousa; Silva; Santana	Integrative review study	To identify evidence on therapeutic adherence in hypertensive elderly	Revista de enfermagem do Centro-Oeste mineiro (RECOM)	2018	Google Scholar
Functional illiteracy in health in hypertensive elderly people in primary care	Costa; Coata; Nakano; Apolinário; Santana	Cross-sectional study	To investigate whether inadequate functional illiteracy in health would be independently associated with inadequate blood pressure control in hypertensive elderly people	Brazilian Journal of Nursing (REBEn)	2019	Google Scholar



			treated in PHC			
Analysis of the prevalence of cardiovascular diseases and associated factors in the elderly, 2000-2010	Massa; Duarte; Filho	Serial longitudinal study	To analyze the change in the prevalence of cardiovascular disease (CVD) between 2000 and 2010 and its association with socioeconomic factors and risk factors in the elderly	Revista Ciência e saúde coletiva	2017	Scielo
Nurses' role in the identification of factors associated with non-adherence of the elderly to the treatment of systemic arterial hypertension	Ramos; Adeodato; costa; Lima; Pereira; Silva	Integrative review study	To describe the nurse's role in identifying the factors for non-adherence to the elderly in the treatment of systemic arterial hypertension	Research, Socyety And Development	2021	Google Scholar
Knowing and combating poor adherence to therapy in hypertensive elderly patients	Costa	Field study	To know the profile of the public that is most affected by the disease, and to know the reasons that lead them to adhere to the therapy proposed by the multidisciplinary team	UNIFESP Electronic magazine	2020	Google Scholar
Blood pressure control and associated factors in a multidisciplinary hypertension treatment service	Jardim; Souza; Barroso; Jardim	Descriptive study with a quantitative approach	To present the results of a long-term team-based therapeutic strategy of hypertensive patients in a health service	SBC	2019	Lilacs
Lifestyle and adherence to therapy in a group of people with hypertension	Pinto; Gonçalves; Marquês	Quantitative, descriptive and cross-sectional	To evaluate life and adherence to therapy in a group of people with HTN, in a personalized care unit	Global Academic Nursing Journal	2021	Google Scholar



Lifestyle and adherence to treatment of systemic arterial hypertension in elderly men	Falcão, Silva; Junior; Moura; Silva; <i>et al.</i>	Cross-sectional study with a quantitative approach	To evaluate the lifestyle and adherence to treatment of systemic arterial hypertension in elderly men	Brazilian journal on health promotion	2018	Lilacs
Qualitative study of the perception of hypertensive and diabetic users about health in primary care	Camargo; Tenani; Bulgareli; Guerra, <i>et al.</i>	Qualitative study	To describe the perception of hypertensive and diabetic users about health care provided in Basic Health Units	Journal of Medical Science	2021	Lilacs
Failure in the diagnosis and drug treatment of hypertension in Brazilian elderly - FIBRA Study	Santamaria; Borin; Leme; Neri; fattori	Descriptive, cross-sectional	To investigate the prevalence of diagnostic failure in the use of antihypertensive drugs and in the efficacy of drug treatment of hypertension, and the association of these parameters with sociodemographic and health variables and access to health services in non-institutionalized elderly	Journal of science and health	2018	Scielo
Factors associated with adherence to pharmacological treatment in the elderly using antihypertensive medication	Aquino; Cruz; Silvério; Vieira; Bastos; Leite	Cross-sectional population-based study	To analyze adherence to pharmacological treatment and associated factors in the elderly who use at least one antihypertensive medication	Brazilian Journal of Geriatrics and Gerontology	2017	Lilacs
Factors associated with the adherence of adults/elderly to the treatment of arterial hypertension in primary care	Barbosa; Bertelli; Aggio; Scolari; Marcon; Carreira	Quantitative, cross-sectional study	To evaluate the factors that influence the adherence of adults/elderly to the treatment of arterial hypertension	Journal of Nursing UERJ	2019	Scielo



Behavioral factors associated with medication adherence in the elderly and outpatient care	Abreu; Santos; Ilha; Silva; Martins; Varela	Cross-sectional study	To evaluate the relationship between behavioral factors and adherence to drug therapy in the elderly in outpatient care	Revista de enfermagem do Centro-Oeste mineiro (RECOM)	2019	Lilacs
Factors associated with non-adherence to treatment of patients with systemic arterial hypertension	Vascocelos; Silva; Miranda	Integrative review study	To analyze in the scientific production what are the associated factors, the non-adherence to the treatment of arterial hypertension	Unit Graduation Notebooks	2017	Google Scholar
Arterial hypertension in the elderly - a prevalent disease in this population	Queiroz; Aquino; Brito; Medeiros; Simões; Teixeira	Integrative review study	To analyze and synthesize the scientific facts about arterial hypertension in the elderly population	Brazilian journal of development	2020	Google Scholar
Hypertensive patients assisted in a secondary care service: cardiovascular risk and social determinants of health	Nobre; Lima; Oliveira; Vieira; Júnior; Costa	Analytical Sectional Study	To investigate the relationship between social determinants of health and global cardiovascular risk in hypertensive patients assisted in secondary care services of the Unified Health System	Collective health notebooks	2020	SciELO
Interaction between drug treatment, meta pressure and depression in hypertensive patients assisted by the family health strategy	Soares; Guedes; Rodrigues; Dias	Cross-sectional study	To analyze how the interaction between adherence to drug treatment, meta pressure and depression occurs in a probabilistic sample of hypertensive patients assisted by the Family Health Strategy, from Governador Valadares, Minas Gerais, Brazil	Public health notebooks	2021	Lilacs



Functional health literacy of hypertensive and diabetic elderly patients assisted in the family health strategy	Scortegagna ; Santos; Santos; Portela	Cross-sectional study	To evaluate the functional health literacy of hypertensive and diabetic elderly enrolled in the Family Health Strategy	EAN Magazine	2021	Scielo
The nurse and the issue of patient adherence to the treatment of systemic arterial hypertension	Salles; Sampaio; Pereira; Malheiros; Gonçalves	Qualitative study	To identify the resources used by the family health strategy (FHS) nurse to stimulate patient adherence to the treatment of systemic arterial hypertension	Journal of Nursing UERJ	2019	Lilacs
Blood pressure among hypertensive elderly people assisted by the family health strategy	Luz; Costa; Griep	Cross-sectional study	To investigate the prevalence of uncontrolled blood pressure (BP) and associated factors in hypertensive elderly people assisted by the Family Health Strategy in a municipality of Piauí, Brazil	Brazilian Journal of Geriatrics and Gerontology	2020	Scielo
Hypertensive crisis: clinical characteristics of patients with hypertensive urgency, emergency and pseudocrisis in a public emergency service	Pierin; Flório; Santos	Cross-sectional study	To evaluate patients with hypertensive crisis, classified as urgency, emergency or hypertensive pseudocrisis; and identify the associated variables.	Eistein Magazine	2019	Scielo
Trends in access to and use of health services in PHC among the elderly in Brazil in the years 2008, 2013 and 2019	Cesário; Santos; Mendes; Júnior; Lima	Transverse; descriptive	Contribute to the identification of the conditions and trends of access to and use of primary health care (PHC) services by the Brazilian elderly in the years 2008, 2013 and 2019	Science and Health Journal	2021	Lilacs



Use of health services and adherence to social distancing by adults with chronic diseases in the COVID-19 pandemic, Brazil, 2020	Malta; Gomes; Silva; Cardoso; Ramos; <i>et al</i>	Cross-sectional study	To investigate the association between self-reported diagnosis of Chronic Noncommunicable Disease (NCD) and adherence to social distancing and use of health services during the COVID-19 pandemic	Free Theme Magazine	2021	Scielo
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Source: Prepared by the authors with research data (2022).

3.1 ADHERENCE TO THERAPY

The concept of adherence to drug therapy is addressed by the World Health Organization (WHO) and can be understood as the extent to which the individual's behavior - use of medications, following a diet, and/or making changes in lifestyle do not coincide with the recommendations of health professionals.

The process of adherence to drug therapy can be influenced by a variety of variables ranging from individual to sociodemographic. Such as gender, age, marital status, years of schooling, among others. Based on this assumption, it is understood that the degree of adherence to medications is related to diversified factors, with emphasis on the satisfactory level of information and interest of the patient in committing to a therapeutic plan that requires behavioral changes and effort, considering that it involves the rupture with unhealthy habits acquired in the course of life (Almeida et al., 2019).

In contrast to what has already been exposed, non-adherence to the treatment of a certain pathology basically consists of not following the therapeutic regimen proposed by a health professional. With regard to pharmacological treatment, non-adherence means abandonment of the use of prescribed medications, without adequate guidance, or their inadequate execution. Either in not taking at the recommended time or in the realization of small interruptions of the prescribed therapy. Such practices configure low adherence to treatment, which has repercussions mainly on the persistence of high BP values (Gewehr et al., 2018).

3.2 DETERMINING FACTORS FOR NON-ADHERENCE TO THERAPY

A study conducted by Pinto et al. (2021), identified strong evidence that the existing difficulties in the health system contribute to the decrease in adherence to therapy. Among these factors, one of the most significant is the difficulty in following the treatment in the health centers, the main contributor in the adequate control of arterial hypertension. Either by the lack of free medication in the popular pharmacies that make up the unit, or even by the insufficiency of professionals to conduct the treatment efficiently.



As expounded by Camargo:

Among the principles that stand out in guiding the reorganization of the work process in Primary Health Care, we can mention the expansion of the population's access to the resources and services of the Basic Health Units. In this context, access is directly related to the availability of continuous care consultations and spontaneous demand, nursing procedures, tests, medications, collective activities, group care, among others (CAMARGO, 2021, p. 5).

Even with the remarkable advances of the Brazilian unified health system, it is observed that access to health services still presents deficiencies, being considered selective and exclusionary in most cases, presenting socioeconomic and geographical barriers in relation to the guarantee of universality (Santamaria et al., 2019). This situation worsens to disproportionate levels when evaluated from the regional point of view, considering that poorer regions of the country, such as the north and northeast, present marked discrepancies in terms of access to health in general.

According to Pinheiro et al. (2018), institutional factors may be related to adherence, as these are not limited only to the attendance of consultations or the appropriate use of the prescribed medication. It complements by affirming that the institutional bond should be understood more than the adstriction to a health service or enrollment to a program, since it means the establishment of a continuous, personal and non-transferable temporal relationship. demonstrating that failures in this process can lead the elderly with arterial hypertension not to adhere to drug treatment.

According to Jardim et al. (2019) the bond established between patient and health professionals is of fundamental importance for the patient to follow up the drug treatment of SAH, which makes it a relevant factor for adherence, because it is during routine consultations that the information about the treatment, as well as the doubts raised about the effects of these evenings remedied. In his study, carried out in a multidisciplinary treatment center focused exclusively on the treatment of SAH, he found that, of the 1548 patients included in the study, 68% had BP control.

Corroborating with Jardim, for Costa (2020) "it becomes essential that the health team be able to detect problems in the care axis that justify the failure in the therapeutic adherence of these patients and propose intervention measures" (p. 7). Corroborating with these findings are also the surveys made by Santamaria et al (2019) which "it is estimated that one third of the hypertensive population is unaware of the clinical diagnosis of the disease and among those diagnosed, only thirty percent have controlled pressure" (p. 8).

According to Aquino et al (2017) "access to medicines may represent the first barrier to adherence" (p. 9). Regarding the availability of medication in Basic Health Units, they are not always available. This makes it difficult to follow the drug treatment of arterial hypertension, especially in the elderly population of the lower strata of society. For the author, the amount of medications and the consequent number of medications taken throughout the day can also negatively influence adherence to drug therapy in hypertensive elderly.



A study showed that low follow-up to drug therapy is interconnected with the complexity of the drug regimen (Barbosa et al., 2018). This constitutes polypharmacy as a significant factor for the non-adherence of hypertensive elderly to the prescribed drug treatment. The use of multiple medications can compromise adherence to drug treatment, making follow-up more difficult especially for elderly people (Abreu et al., 2019).

Also according to Abreu et al. (2019) "the progressive use of many medications (five or more) which configures polypharmacy, may represent complications to the elderly, as it exposes them to a greater risk of drug interactions, adverse drug reactions and non-adherence to medication" (p.5). Another preponderant factor among hypertensive elderly and that is also addressed by the author is the fact that they take the medication only when they present symptoms of the chronic condition.

Another significant factor that interferes with the proper use of medications are the comorbidities associated with hypertension. According to the World Health Organization (2003) the existence of comorbidities contributes significantly to non-adherence to drug therapy. It can be understood that the number of morbidities that manifest themselves in the elderly population leads to the exacerbated consumption of drugs, contributing to the patient's non-adherence to treatment as it becomes more difficult to remember all the medications that should be used.

The time of study is also presented as an important factor for the follow-up of drug therapy. A study by Scortegagna et al. (2021) showed a strong association between functional health literacy and schooling.

The World Health Organization, in addition to what has already been explained, also points out that the belief is an important factor in non-adherence to drug therapy by hypertensive elderly. This may be associated with the perception of the elderly about the risks and benefits inherent to this pathology. It is noteworthy that in the elderly population the use of medicines based on herbs, roots, among other substances of natural origin is frequent and in part is related to cultural ties transmitted from generation to generation.

3.3 REPERCUSSIONS OF NON-ADHERENCE OF HYPERTENSIVE ELDERLY TO DRUG THERAPY

Aging and hypertension have a direct association as has already been perceived, usually acting as a predictor of other diseases. Most of the diseases prevalent in the elderly population are associated or originate with arterial hypertension and represent a considerable risk factor, which has repercussions on even more serious problems. When the control of high blood pressure is not achieved, the quality of life of this elderly person is directly affected, affecting the cognition, behavior and social of this individual (Queiros et al., 2020).

Hypertensive crises represent the first symptomatic manifestations resulting from the elevation



of blood pressure. They are also one of the main complications that lead to the search for emergency services. These are characterized by severe and gross elevation of blood pressure and are classified into three distinct categories: hypertensive urgency, hypertensive emergency and hypertensive pseudocrisis. Such events are strictly related to non-adherence to medications, taking into account that for the adequate control of BP, especially in the elderly, it is necessary to use hypotensive agents, these constitute the first approach. Because its administration aims to reduce blood pressure levels as an initial treatment (Pierin et al., 2019).

Elevated BP values are routinely associated with risk for ischemic heart disease, stroke, chronic kidney disease, and early mortality. Advanced age is considered an immutable risk factor for the development of hypertension in the elderly, and associated with ineffective follow-up of drug treatment can lead to complications such as Cardiovascular Diseases (CVD) (Barroso et al., 2020). This statement was consistent in a study conducted by Massa et al. (2019) that analyzed the change in the prevalence of cardiovascular diseases among the elderly in the period from 200 to 2010, and found that the association between increasing age and progressive increase in cardiovascular diseases was prevalent in all analyses.

In a study conducted with patients with cardiovascular disease treated at a referral hospital for the disease in question, it was found that 60% of the sample had already undergone previous hospitalization due to arterial disease, evidencing the lack of adherence to treatment, especially medication, and even in the use of instituted medication, patients had severe complications that culminated in hospitalization in a coronary center (Abreu et al., 2018)

An analysis provided in the 7th Brazilian Guidelines on Arterial Hypertension showed that in addition to the risks for coronary artery disease (CAD) and stroke, hypertension represents a similar risk for other outcomes, such as: Heart Failure (HF), atrial fibrillation, valvular heart diseases, peripheral arterial disease and Chronic Kidney Disease (CKD).

According to the Ministry of Health, hypertension is responsible for 40% less deaths from stroke, 25% of deaths from coronary artery disease and, in association with diabetes mellitus, 50% of cases of end-stage renal failure. Such complications still often lead the elderly to seek health services, which has repercussions in an increase in the number of hospitalizations and in additional costs to the health system (Pinheiro et al., 2018).

3.4 FACTORS RELATED TO THE ELDERLY WITH HYPERTENSION

According to data from the 2013 national health survey, the prevalence of self-reported hypertension in people aged between 60 and 64 years was 44.4%. And in the more advanced age groups, between 65 and 74 and 75 years or more, the hypertensive rate was even higher, corresponding to 52.7% and 55.0%, respectively. This demonstrates a predominance of the pathology in the elderly



population. It should be noted here that the RAS besides being frequent in this population, is an important risk factor for cardiovascular events and is associated with functional disability and death in the elderly (Santamaria et al., 2019).

Age is a significant factor inherent to the elderly with RAS for non-adherence to drug therapy, considering that visual and cognitive limitations are more prevalent in this population. A study conducted in Rio Grande do Sul with the objective of verifying adherence to the pharmacological treatment of arterial hypertension and its associated factors in the Family Health Strategy, observed low adherence to therapy among elderly people over 64 years of age (Gewehr et al., 2018).

For Abreu et al. (2018), forgetfulness is a relevant factor for non-compliance with drug therapy. Forgetfulness, especially in the elderly submitted to drug therapy of SAH, may occur as a result, among other factors, of polypharmacy, mental disorders and cognitive impairments, which may hinder the recognition and memorization of medication administration times.

With regard to polypharmacy, this is mainly due to the significant number of comorbidities present in the elderly population, which leads to the use of several drugs and consequent high number of daily doses, making it difficult for the elderly to remember the medication and the recommended times for taking. It is also noteworthy that adverse effects can discourage or lead the elderly to abandon certain medications for fear of major complications. It is understood from this that the concomitant use of multiple classes of drugs with several doses throughout the day, both of antihypertensive drugs and other drugs, can contribute to ineffective compliance with treatment due to its complexity (Leão, 2018). A study showed that the higher the number of associated antihypertensive drugs, the lower the adherence to SAH treatment (Gewehr et al; 2018).

Contributing to these statements, a study conducted in Piauí showed that hypertensive patients stop taking medication for SAH at least once a year, and that they forget to take it properly at established times at least once a month. This is partly associated with cognitive limitations such as memory lapses. The same study also highlights the low level of education as a contributing factor to non-adherence to measures to control hypertension among the elderly, especially medication. Considering that the association between RAS control and lower schooling may reflect the difficulty in knowing the disease and its risk factors, as well as adherence to control measures (Falcão et al., 2018).

Another factor inherent to the elderly that influences non-adherence to medication treatment of hypertension is the absence of symptoms of the chronic condition. Among the elderly investigated in a study to assess the degree of adherence to drug therapy in hypertensive patients, there were those who took the medications only when they had symptoms of the chronic health condition, and therefore had a lower level of adherence than those who followed the treatment continuously (Abreu et al., 2018).



Not least, the income factor presents itself as an obstacle in the adherence to drug treatment of this pathology. In a cross-sectional study conducted with a sample of 384 people, it was demonstrated that the majority of participants reported needing to buy antihypertensive medication (Luz et al., 2021).

With regard to beliefs as a determining factor for non-adherence to antihypertensive medication, it can be deduced that the elderly are more likely to adopt measures based on empiricism, because they bring with them years of experience and a baggage of knowledge passed from generation to generation. Contributing to this, the asymptomatic course of the disease itself can lead the elderly to believe that hypertension is an intermittent disease and that it can be treated only with non-pharmacological therapies, simply with stress relief or home remedies, such as teas or mixtures without any scientific proof (Costa, 2020).

3.5 FACTORS RELATED TO THE HEALTH SYSTEM

As already explained, the difficulty in accessing health services is one of the main obstacles to the adequate follow-up of the treatment of arterial hypertension among the elderly. And even if the difficulties of access to the health service are reduced, there are subjective components (perception about what the disease is, knowledge about the treatment) that need to be treated with caution. For this, it is necessary to invest in effective communication between the health professional and the patient (Soares et al., 2021).

According to Cesário et al. (2021) PHC is considered as one of the essential mechanisms for coping with NCDs, so that the finding of expansion in the USF registry, associated with greater demand and care at this level of care reinforces the relevance of the consolidation of PHC so that it is possible to qualify health care for the Brazilian elderly, for the sake of a healthy elderly population.

A factor of great relevance that interfered considerably making it even more difficult to access health services was the COVID-19 pandemic. A study conducted by Malta et al. (2020), exposes that in the COVID-19 pandemic, NCDs have become even more worrisome, with these diseases and their behavioral and metabolic risk factors aggravating cases, increasing hospitalization time and mortality rates from COVID-19. In addition, the social distancing measures adopted to control the spread of the virus have left many of the elderly unassisted, due to the compromise of access to the UBSs. The present study also showed that individuals with NCDs reported greater demand and difficulty in using health services during the pandemic.

Allied to this, the complications faced by Community Health Agents (CHA) in performing their activities stand out. These strategically inserted in the FHS teams play a fundamental role in the follow-up of patients with NCDs at the home level, carried out during home visits. A study carried out with the objective of verifying the difficulties faced by this technical category in the context of the covid-19 pandemic, demonstrated that a total of 46.9% of a sample of 1978 CHAs participating in the first



phase of the research did not obtain education or training on the disease. This has become an obstacle in the adequate approach of patients at home by these professionals. It is noteworthy that these play the role of counselor, especially to patients with arterial hypertension, removing doubts about the appropriate use of medications, and the simple fact of being able to enter the home, represents a considerable risk to the follow-up of the treatment of these elderly (Nogueira et al, 2021).

Another significant factor for non-adherence to hypertension medication treatment, which is strictly linked to the Brazilian health system, concerns the difficulty in obtaining medication at health centers. A study showed that although the SUS distributes essential medications free of charge, especially those of chronic use, the lack of these medications was reported in the analyzed service stations (Manso et al., 2018).

The ineffective relationship established between health professional and patient is by far shown to be an important factor related to the health system that can contribute negatively to the fulfillment of drug therapy. It is known that many professionals do not provide quality care, that they do not pass on the necessary information about the follow-up of the treatment and the risks of its abandonment. It is understood that the embezzlement in the reception of the elderly, and the lack of information, especially about the use of medication, by some professionals, interferes with treatment adherence in elderly patients (Ramos et al., 2021).

In view of the above, a comprehensive approach is necessary, aiming at adherence to treatment and blood pressure control, with more accurate blood pressure controls, careful monitoring and review of preventive and therapeutic measures adopted. In this context, the professional-user relationship stands out, which requires effective dialogue to favor the understanding of treatment and the appropriate use of medications (Nobre et al., 2020).

3.6 NURSING CARE IN THE CONTEXT OF ADHERENCE OF HYPERTENSIVE ELDERLY TO DRUG THERAPY

It is observed that the challenges of treatment adherence, in the control and prevention of SAH in Brazil, are strictly linked to the provision of services in primary health care, more precisely to the Family Health Strategy. And nursing as a professional category plays a role of fundamental importance within the FHS, acting to favor treatment adherence, prevention, monitoring and control of SAH. Focusing on the fundamental principle of person-centered practice, involving their family members, at the individual and collective level (Salles et al., 2018).

Within the FHS, the nurse works with the multidisciplinary team in the treatment and control of SAH. Among its attributions, the nursing consultation and the home visit are essential for care, as it allows the nurse to know the predominant characteristics of the SAH patients registered in the strategy, which facilitates their actions. Through scientific knowledge and the role of educator, nurses should



train patients with the disease to adhere to treatment, improving their quality of life (Salles et al., 2019).

According to Marta (2021) "the empowerment of the patient through the transmission of the therapeutic objectives, the means and competencies to achieve them, as well as the risks associated with the disease, motivate the patient to comply with the therapy" (p. 12). Thus, the nurse plays a fundamental role acting within the FHS, with regard to the orientation of the elderly about their treatment, specifically the medication. By resolving doubts, providing guidance on the effects of drugs, compliance with times of intake, the correct dosage and its benefits, the nurse becomes an indispensable tool for the follow-up of drug therapy. In addition to stimulating the client's autonomy, aiming at co-responsibility for their health.

Corroborating with Ferreira, Dallacosta et al., (2019) in their study states that the professional nurse plays a role of fundamental importance acting precisely in the awareness of this SAH carrier about the importance of the continuous use of medication.

Among the resources that should be used by the professional nurse to combat the non-adherence of elderly patients to drug therapy, health education stands out, which is fundamental, especially in this age group, where physical and cognitive capacities present considerable strain. To this end, a dialogued relationship should be established, and educational actions should be carried out with the elderly, in order to solve their doubts and anxieties regarding the use of medications, favoring a comprehensive and qualified care to the elderly with SAH (Falcão et al., 2018)

According to Costa et al. (2019) the importance of paying attention to the level of education when drawing up a care plan aimed at the hypertensive elderly, with the objective of ensuring that drug treatment is not withdrawn, is that in Brazil although many elderly have some level of education measured in years, many of these individuals cannot read, writing and doing mathematical math, which makes it impossible for them to solve their everyday demands.

It is understood from this that it is mainly up to the nurse, one of the main professionals responsible for the monitoring of the elderly with SAH, to use qualified listening and plan resolute actions, focus on health education, guide on healthy life habits in an objective and clear way, fostering self-care. Provide care based on humanized practices that promote empathy, as they facilitate adherence, blood pressure control and the consequent success of drug treatment (Ramos et al., 2021).

4 FINAL CONSIDERATIONS

Understanding the barriers faced by elderly patients with Systemic Arterial Hypertension (SAH) in following the proposed treatment and unveiling the main factors that contribute to non-adherence to drug therapy by this public, becomes crucial for the professional categories dedicated to their direct care to take accurate initiatives in the elaboration and implementation of intervention strategies that favor greater adherence to treatment and consequent improvement of levels tension, thus



preventing serious repercussions on the health of these elderly. In view of the above, a scientific approach on hypertension in the elderly and the factors that determine non-adherence to drug therapy potentiated by the COVID-19 pandemic has become relevant.

Therefore, the general objective of the research was to discuss and evidence in the literature the determining factors of non-adherence of elderly patients with RAS to drug therapy. It was found that many factors interfere with the non-adherence of the elderly, factors that are linked to the elderly themselves and to the health system, as they present difficulties in following the proposed therapeutic scheme, either because of their complexity, forgetfulness, adverse effects of the medication and their belief in alternative medicines of an empirical nature. And the one for presenting flaws in its operationalization and professional training.

Starting from the objective of identifying the most relevant factors for the non-adherence of the elderly with arterial hypertension to drug treatment, it is evident that those related to the health system, the difficulties in accessing services stand out, due to the discontinuity of services in the pandemic peaks, especially at the level of primary health care PHC and the fragility in the patient/health professional interaction, which has been accentuated by the pandemic. And the hypertensive elderly are presented with a considerable degree of relevance to age, forgetfulness, polypharmacy, the adverse effects of the prescribed drugs, little knowledge about the disease, other comorbidities and belief. The discontinuity of access to health care and the serious consequences were pointed out that showed that patients who required care related to COVID-19, were prioritized, to the detriment of patients in routine care or follow-up procedures.

Regarding the repercussions resulting from the abandonment or inappropriate use of antihypertensive medications in the life of the elderly. It should be noted that these represent serious risks to their health, and the most pointed out according to studies, those referring to the cardiovascular system, hypertensive crisis, Stroke and Chronic Kidney Disease (CKD). The nurse, playing a fundamental role in the prevention and promotion of health, especially at the level of primary care, is shown to be a fundamental piece in the control of hypertension among the elderly, and it is mainly up to him to strengthen the patient's bond with the service. Thus, it can act on specific factors and prevent changes in blood pressure levels, thus avoiding more severe situations in the health of this elderly.

To obtain the results of this research, it was hypothesized that the follow-up of the drug treatment of SAH is influenced by factors inherent to the elderly and to the health system. It can be observed the predominance of many factors both linked to the patient and the system. It should be noted that this is a literature review study and covers a specific period of time, a population with pre-established age, and articles in Portuguese. This is the limitation of this study. The care services for the elderly with hypertension in the municipality were not totally interrupted with the Covid-19 pandemic, however, they suffered some kind of discontinuity. This points to the need to implement plans for the



resumption of services, with reinforcement of strategies that involve risk stratification, disease management and case management, in addition to the inclusion of innovative approaches to care for arterial hypertension in the elderly.

Given this, it is recommended the elaboration of studies that contemplate other audiences and that address the theme taking into account other time intervals, as well as other realities and different cultures. It is also suggested that the determining factors for non-adherence to drug treatment in patients with other chronic non-communicable diseases be investigated, since these are often associated, especially in the elderly population. The elucidation of the factors of non-adherence to drug treatment, not only of arterial hypertension, but also of diseases associated with it provides a contribution, especially for health professionals, for a better conduct of care measures.



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