



ISSN: 0975-833X

Available online at <http://www.journalcra.com>

International Journal of Current Research
Vol. 11, Issue, 06, pp.4294-4297, June, 2019

DOI: <https://doi.org/10.24941/ijcr.35451.06.2019>

INTERNATIONAL JOURNAL
OF CURRENT RESEARCH

RESEARCH ARTICLE

THE PRESENCE OF MENTAL DISORDERS IN HYPERTENSIONS WHAT OR NOT THE USE OF THE MEDICINE FOR CONTROL OF BLOOD PRESSURE

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ARTICLE INFO

Article History:

Received 20th March, 2019

Received in revised form

18th April, 2019

Accepted 24th May, 2019

Published online 30th June, 2019

Keywords

Epidemiology.

Hypertension. Seniors.

Therapeutic Adhesion.

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ABSTRACT

High blood pressure (AH) is responsible for a high burden of cardiovascular diseases, as well as for the morbidity, mortality and incapacities of individuals, especially the elderly, and may cause diverse health and public economy impacts in both developed and emerging countries. The present study aims to identify the presence of mental disorders (anxiety, stress and depression) in hypertensive patients who do or do not use the medication to control blood pressure. This is a quantitative, observational study in a municipality in the interior of Bahia. The sample consisted of 87 elderly people, both hypertensive (diagnosed by a specialist physician), who were questioned about the use of the medication to control blood pressure (taking or not taking the medicine). The variables were acquired through the use of globally validated questionnaires, such as BECK anxiety and depression, the LIPP stress questionnaire. Our results show that the majority of the elderly were women, mostly low-middle-class, and who did not work, most likely elderly people who were retired in the majority. Most were widowers, and the other top were married seniors. Most of the elderly were identified as being stressed. Further information can be verified in Table 1, which shows information about the general characteristics of the sample. The use of drugs to control blood pressure is extremely important in that they are responsible for avoiding diseases due to the pathology. Some other chronic problems, such as mental disorders, may influence the use of medications to control blood pressure.

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Citation: Thalles Argôlo Correia, Larissa Alves Guimarães, Beatriz Rocha Sousa, Danielle Soares Silva et al. 2019. "The presence of mental disorders in hypertensions what or not the use of the medicine for control of blood pressure", *International Journal of Current Research*, 11, (06), 4294-4297.

INTRODUCTION

High blood pressure (AH) is responsible for a high burden of cardiovascular diseases, as well as for morbidity, mortality and incapacities of individuals, especially the elderly, and may cause several health and public economy impacts in both developed and emerging countries (David, 2018). It is considered a multifactorial clinical condition characterized by elevated and sustained BP levels (Vidal-Petiot, 2016). Its diagnosis is simple and well defined: systolic blood pressure (SBP) ≥ 140 mmHg and / or diastolic blood pressure (DBP) ≥ 90 mmHg (David, 2018; Brazilian Society of Cardiology, 2016). The intrinsic mechanisms that regulate BP are similar between men and women; however, there are physiological and immunological differences that tend to influence the advent of the disease, its prevalence and response to treatment (Gonçalves et al., 2018; Venkataramani et al., 2016).

It is emphasized that environmental factors, such as lifestyle habits, as well as mental disorders such as anxiety, stress and depression can contribute to the individual's dysfunction in BP, causing hypertension, as well as failure to adhere to adequate treatment (Dias et al., 2017; Arruda et al., 2018; Stringhini et al., 2017). Contrary to what can be imagined, studies show that most hypertensive patients do not show signs and symptoms in an evident way, that is, they are generally asymptomatic subjects (Vashishtha, 2018). They are generally perceived in more advanced stages of the disease, being mediated by pharmacological treatment and changes in lifestyle, minimizing the risks of increasing the impact of the disease and its comorbidities (Safar, 2011; DePalma et al., 2018). In view of the above, the present study aims to identify the presence of mental disorders (anxiety, stress and depression) in hypertensive patients who do or do not use the medication to control blood pressure.

MATERIALS AND METHODS

This is a quantitative study, with an observational character, in a municipality in the interior of Bahia (latitude: 14° 51' 58" S; longitude: 40° 50' 22" W), the same is a fragment of a research called "Perfil The data were collected from July 2016 to September 2018. The sample consisted of 87 elderly people divided of both genders, all hypertensive (diagnosis emitted by a medical specialist), in which they were asked about the use of the medicine to control blood pressure (taking or not taking the medicine). The variables were acquired through the use of globally validated questionnaires, such as BECK anxiety and depression, the LIPP stress questionnaire (Dias, 2018). The sociodemographic variables (age, marital status, family arrangement, employment status) were collected through a self-administered questionnaire, following the standards of the Brazilian Institute of Geography and Statistics (IBGE) - characterizing the sample (David, 2018; David *et al.*, 2019). BAI (Beck Anxiety Inventory) was created by Beck, Epstein, Brown and Steer, at the Center for Cognitive Therapy (CCT) in 1988, which describe the development of the instrument and provide information about its psychometric properties. The scale was constructed based on several self-reporting tools used in CCT to measure aspects of anxiety (Arruda, 2018). According to the manual of the Portuguese version of the Beck Scales, BAI was initially designated for use with psychiatric patients, but was also appropriate for the general population. The Portuguese version was used in psychiatric and non-psychiatric groups, including students and work involving other subjects of society (David, 2019).

BAI is a 21-item self-report scale that measures the intensity of anxiety and contains descriptive affirmations of anxiety symptoms. The items should be evaluated by the subject with reference to himself, in a scale of 4 points, according to the Portuguese Manual of the Beck Scales, which reflect levels of increasing severity of each symptom as: 1) "Absolutely not"; 2) "Lightly: it did not bother me much"; 3) "Moderately: It was very unpleasant, but I could bear it"; 4) "Gravely: I could hardly bear it." The Beck Depression Inventory (BDI) is the acronym for the Depression Inventory instrument, a measure of the intensity of depression, one of the first dimensional features. It was initially developed as a symptomatic scale of depression for use with psychiatric patients, and many studies on its psychometric properties were performed in the years following its appearance. It was later widely used, both in the clinical and research areas, and it was also useful for the general population, according to the Beck and Sterr manual (David, 2019). It is a self-report scale of 21 items, each with four alternatives, implying increasing degrees of depression severity, with scores ranging from 0 to 3. The items were selected based on observations and reports of symptoms and attitudes more frequent in patients psychiatric disorders with depressive disorders, and were not chosen to reflect any theory of depression in particular. The Inventory of Stress Symptoms for Adults and Elders of Lipp (ISSL) intends to identify symptoms of stress in an objective way, the symptomatology presented by the patient, evaluating the types of symptoms (somatic or psychological) and the stage that is found. The ISSL was validated in 1994 by Lipp; Guevara and has been used in research and clinical work in the area of stress and is aimed at young people and adults. This inventory is composed of three tables that refer to the last of the four phases of stress, and Table Two is used to evaluate phases two and three (resistance and near exhaustion) (David, 2019). The symptoms

listed in ISSL are typical of each phase. In the first table, consisting of twelve physical and three psychological symptoms, the patient signals with F1 or P1 the physical or psychological symptoms they have experienced in the last twenty four hours. The second table consists of ten physical and five psychological symptoms, the patient scores with F2 or P2 the symptoms experienced in the last week. The last table is composed of twelve physical and eleven psychological symptoms, in which the patient should indicate with F3 or P3 the symptoms that he has experienced in the last month. Some of the symptoms that appear in the first frame reappear in the third, but with different intensity. In total, ISSL presents 37 somatic and 19 psychological items, with symptoms often repeated (David, 2019). Statistical analysis was performed considering a significance level of $p < 0.05$, the database and the descriptive and analytical analysis were done with the help of SPSS Software, version 25.0. The chi-square test was used to identify the association of the variables used. Participants were informed of the methods to be used for the collection, according to Resolution 466/12 (National Health Council), which consists of international research documents that involve human beings. It is noteworthy that this study was approved by the ethics and research committee, approval report no. 1,859,545.

RESULTS AND DISCUSSION

Our results show that the majority of the elderly were women, mostly low-middle-class, and who did not work, most likely elderly people who were retired in the majority. Most were widowers, and the other top were married seniors. Most of the elderly were identified as being stressed. Further information can be verified in Table 1, which shows information about the general characteristics of the sample. The number of elderly people who presented stress was high, unlike other types of mental disorder. The literature has addressed the fact that depression and anxiety are psychological symptoms of stress, and may explain why the number of stressed elderly patients was higher than the number of anxious and depressive patients (Babazadeh, 2014-2015; Luchesi, 2016). It should be emphasized that anxiety, depression and stress, initially are not pathologies, are feelings that can become pathological if exacerbated and consistent in the elderly individual (Babazadeh, 2014-2015; Shabalin, 2018).

Reducing the abilities to perform activities of daily living, coupled with sedentary lifestyle, increases the problems faced by the elderly and imposes heavy economic, social and psychological costs on a given society (Shabalin, 2018). One of the important indices in the elderly, which makes them of good quality of life, is their mental health. Some of the most important factors that determine your state of mental health are loneliness and lack of social connections. For example, there is some study that shows a negative relationship between loneliness and physical and mental health in the elderly (Yagil, 2016; Choi, 2018). In our study it was verified that a good part of the elderly who have the pathology make the appropriate treatment, not being found a significant difference between the use of medication to control blood pressure and the anxious and stressed elderly. However, it was verified that the individuals who did not have depression were more oblivious to the use of the drug than the other elderly, being a significant association with $p \leq 0.004$. A major problem for the elderly who need to use medications continuously to treat chronic health conditions and prevent disability is related to adherence

Table 1. Sample characteristics and frequency

Variables		Frequency	%
Genre	Male	16	18,4
	Female	71	81,6
Social class	C	9	10,7
	D	45	53,6
	E	30	35,7
Job	Yes	12	13,8
	Not	75	86,2
Marital status	Not married	12	14,5
	Married	30	36,1
	Divorced	9	10,8
	Widower	32	38,6
Stress	Without	29	35,4
	With	53	64,6
Depression	Without	70	81,4
	With	16	18,6
Anxiety	Without	59	72,0
	With	23	28,0

Source: Own research, 2018.

Table 2. Pearson's chi-square between the variables of mental disorder (stress, depression and anxiety) and the use of medications to control blood pressure

		Medication for pressure control		p-value
		Make use	Do not use	
Stress	Without	13	16	0,073
	With	34	19	
Depression	Without	34	36	0,004*
	With	14	2	
Anxiety	Without	31	28	0,215
	With	15	8	

Source: Own research, 2018.

to treatment, especially for arterial hypertension, in order to reduce adverse effects on the cardiovascular system (Gautério-Abreu, 2016). Among these patients, factors such as cognitive deficits, mental disorders that may decrease constancy and will to use medication (Gulich, 2016), sensory and motor; financial difficulties; lack of family support; beliefs and negative attitudes toward drugs are cited as barriers to adherence to prescribed medication (Sousa, 2016). In general, therapeutic adherence is understood as the use of at least 80% of the prescribed therapy (medications or other procedures), observing times, doses and time of treatment (Nunes, 2012). The level of adherence to drug therapy in the elderly found in national and foreign studies ranges from 28% to 88.5%. This great variability may be due to the different methodologies adopted for such evaluation (Rodrigues, 2013). Adherence to drug therapy is essential for therapeutic success and reduction of aggravations in the elderly and an important component of health care, since adherence to prescription drugs increases the likelihood of mortality and morbidity and increases the risk of adverse complications, which leads to increased spending by the health system due to the higher number of visits and hospitalizations (Maciel, 2017; Georgiopoulos, 2018; Mansour, 2016).

Conclusion

The use of drugs to control blood pressure is extremely important in that they are responsible for avoiding diseases due to the pathology. Some other chronic problems, such as mental disorders, may influence the use of medications to control blood pressure. Therefore, the maintenance of health is not only restricted to the use of the medication to control a particular pathology, but also to the psychological context and other pathologies that may favor the abandonment of medication.

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