ORIGINAL ARTICLE

Prevalence of depression and anxiety and their association with cardiovascular risk factors in Northeast Brasil primary care patients

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SUMMARY

BACKGROUND: *Depression and anxiety disorders (DAD) are the most prevalent mental health conditions worldwide. Among the adult population served in basic care, it is estimated that depression affects about 14.3% of these individuals worldwide, and between 21.4% and 31% in Brasil. Anxiety affects up to 33.7% of the population during their lifetimes.*

OBJECTIVES: *estimate the prevalence proportions of DAD among patients in a municipality in Northeast Brasil and study the association between DAD and cardiovascular risk factors.*

METHODS: *a cross-sectional study with the medical records of patients from primary care centers in Jaboatão dos Guararapes, Pernambuco. Patients aged ≥ 18 years and regularly followed-up were included. Exclusion criteria: a history of traumatic brain injury, alcohol or drug abuse, previous stroke, medical conditions or medications that mimic DAD symptoms. Subjects were divided into two groups depending on the presence or absence of DAD, and cardiovascular risk factors were compared between groups.*

RESULTS: *A total of 1030 subjects were initially included, of whom 215 (20%) were excluded. No-DAD subjects had more history of myocardial infarction and alcoholism. The prevalence of depression was 10.3%, anxiety disorder was 27.1%, and mixed DAD represented 4.5%. There was a significant association between DAD and hypertension (OR = 2.11; 95%CI: 1.16 -3.84; p=0.01), obesity (OR = 4.47; 95%CI: 1.74 -11.46; p=0.002), and hyperlipidemia (OR = 3.88; 95%CI: 1.81-8.3; p<0.001).*

CONCLUSION: *DAD were associated with an increased risk for arterial hypertension, obesity, and hyperlipidemia.*

KEYWORDS: *Anxiety. Depression. Risk Factors. Cardiovascular diseases. Primary Health Care.*

INTRODUCTION

Anxiety and depression disorders are the most prevalent mental illnesses worldwide.[1,2] The World Health Organization (WHO) points to depression as the leading cause of disability[3] and the third leading cause of years lost due to disability, according to their study Global Burden of Disease 2016[4], and is expected to rank second on the *Disability Adjusted Life Years* (Dalys) by 2020.[5,6] Economic and health care indicators on cardiovascular diseases (CVD) and depression show an increase in medical costs, increased demand for health services and loss of productivity.[7] In addition, the prevalence of depression in patients

with CVD is twice that of the general population.[8] In Brasil, the prevalence of depression is approximately 5.8% to 17% of the population against 4.4% of the world population.[6]

Approximately 47% of patients with depression have other comorbidities; of these, systemic arterial hypertension (SAH) is the most prevalent (19.4%).[9] According to Wu et al.[9], 21.2% of patients diagnosed with depression had SAH, against 13.3% of those without depression. Seldenrijk et al.[10] showed that people with depression have a two to three times increased risk of developing CVD in a period of six years.

In patients with anxiety disorder, diabetes mellitus type 2 (DM2) is also more prevalent than in the general population (11% *versus* 6%). In addition, heart failure, peripheral arterial disease, and cerebrovascular accident tend to be associated as an independent risk factor for increased mortality due to heart diseases.[11] Such finding after an acute cardiac event predicts the development of late-life depression.[7]

Depression and anxiety are often studied separately; however, Stewart et al.[12] evaluated patients with such associated conditions and compared them with those who had a diagnosis of only one of them. They found that individuals with anxiety, alone, had a higher risk of a cardiac event (HR: 1.54; CI95%: 1.21-1.96, p<0.001). On the other hand, Seldenrijk et al.[10] found evidence that suggests a greater contribution of depression in cardiovascular events in relation to anxiety disorders. In addition, studies that related anxiety and depression disorders (ADD) and CVD in primary care centers suggest that depressive disorders could be associated with a very high risk of mortality from cardiovascular causes.[13]

Despite the prevalence and importance of these conditions in primary care, the rates of identification and treatment remain very low, with less than half of the depressive episodes identified correctly.[14]

The prevalence of depression in this population ranged from 21.4% to 31.0%, according to a Brazilian multicenter study conducted in four large cities.[15] In the same study, the prevalence of anxiety ranged from 35.4% to 43.0%. Anxiety is one of the most frequent psychiatric disorders in primary care, representing 19% of the cases.[16] This finding is consistent with the results by Combs and Markman[17], who randomly selected patients in primary care units and found that 19.5% of the subjects presented at least one type of anxiety disorder. However, studies involving samples from the North and Northeast regions of the country are scarce.

A meta-analysis including 14,760 adult subjects treated in primary care showed that the prevalence of depression was 14.3%.[18] There are few studies about the prevalence of mental disorders in family health units in Brasil, but it is known that anxiety can affect up to 33.7% of the world population throughout life, depending on the study.[2]

Considering the importance of the scenario of primary care for public health, it is important to investigate more thoroughly the epidemiology of anxiety and depressive disorder, as well as their association with other cardiovascular risk factors in the context of primary care in Brasil. The objectives of this study are to (a) estimate the prevalence of anxiety disorders and depression among patients of primary care in the city of Jaboatão dos Guararapes, Pernambuco; (b) verify the association between depressive and anxiety disorders and cardiovascular risk factors.

METHODS
Study design

We conducted a cross-sectional cohort study from January 2014 to March 2017.

Inclusion criteria
We included patients 18 years old or older, in regular medical follow-up for at least six months from the date of the data survey.

Exclusion criteria
We excluded individuals with a history of traumatic brain injury (TBI), abuse of alcohol or drugs, past history of cerebrovascular accident, psychotic disorders, hypo- or hyperthyroidism, Cushing's disease, systemic lupus erythematosus, and masses in the brain.

Patients in continuous use of medications that might mimic symptoms of depression or anxiety were also excluded: reserpine, clonidine, methyldopa, propranolol, promazine, chlorpromazine, acetazolamide, atropine, hyoscine, haloperidol, corticosteroids, barbiturates.

Sample size calculation
The sample size was calculated based on the primary objective of the study. Thus, considering a confidence interval of 95%, a precision of 5%, the value

that maximizes the size of the sample at a rate of an estimated loss of 15%, the minimum sample size necessary for the appropriate extrapolation of results was 515 subjects.

Sampling and procedures

The network of health services is divided based on political and administrative criteria into seven districts of health services (I to VII). The distribution of the total population and Basic Health Units (UBS) per health district is represented in Table 1. It is estimated that the family health strategy for the city of Jaboatão dos Guararapes services 51.3% of the population (approximately 330,818 inhabitants).[19]

The model of a simple random sample (SRS) was used to select two units among the 12 available, so as not to belong to the same district. As a result, a UBS from district II and one from district VII were selected, representing a sample coverage of 29.2% (96.5 thousand individuals). In a second step, the SRS was used to select a sample of 515 medical records from each UBS, based on the sample size calculation. The

flowchart of the sampling process is represented in Figure 1.

The patients were divided into two groups, based on the presence of anxiety and/or depression disorders. The AD group included patients with a diagnosis of anxiety or depressive disorders, based on medical records. The NAD group included patients who did not have these psychiatric disorders.

The sociodemographic data included gender, age, ethnicity (self-reported), educational level, and employment status. We further divided the variables of ethnicity and education, respectively, into: white or non-white; and no formal education, primary or lower, secondary (including incomplete), undergraduate or higher.

Operational definitions
Definition of depression

The medical records of the patients were evaluated to determine the diagnosis of depression, considering the following criteria:

a) Description by the assistant physician, of the

FIGURE 1 - SCHEMATIC REPRESENTATION OF THE SAMPLING PROCESS

SRS = Simple random sample UBS = Basic Health Unit. CVA = Cerebrovascular accident

*Coverage estimate of the health district. Adapted from Da Silva[19].
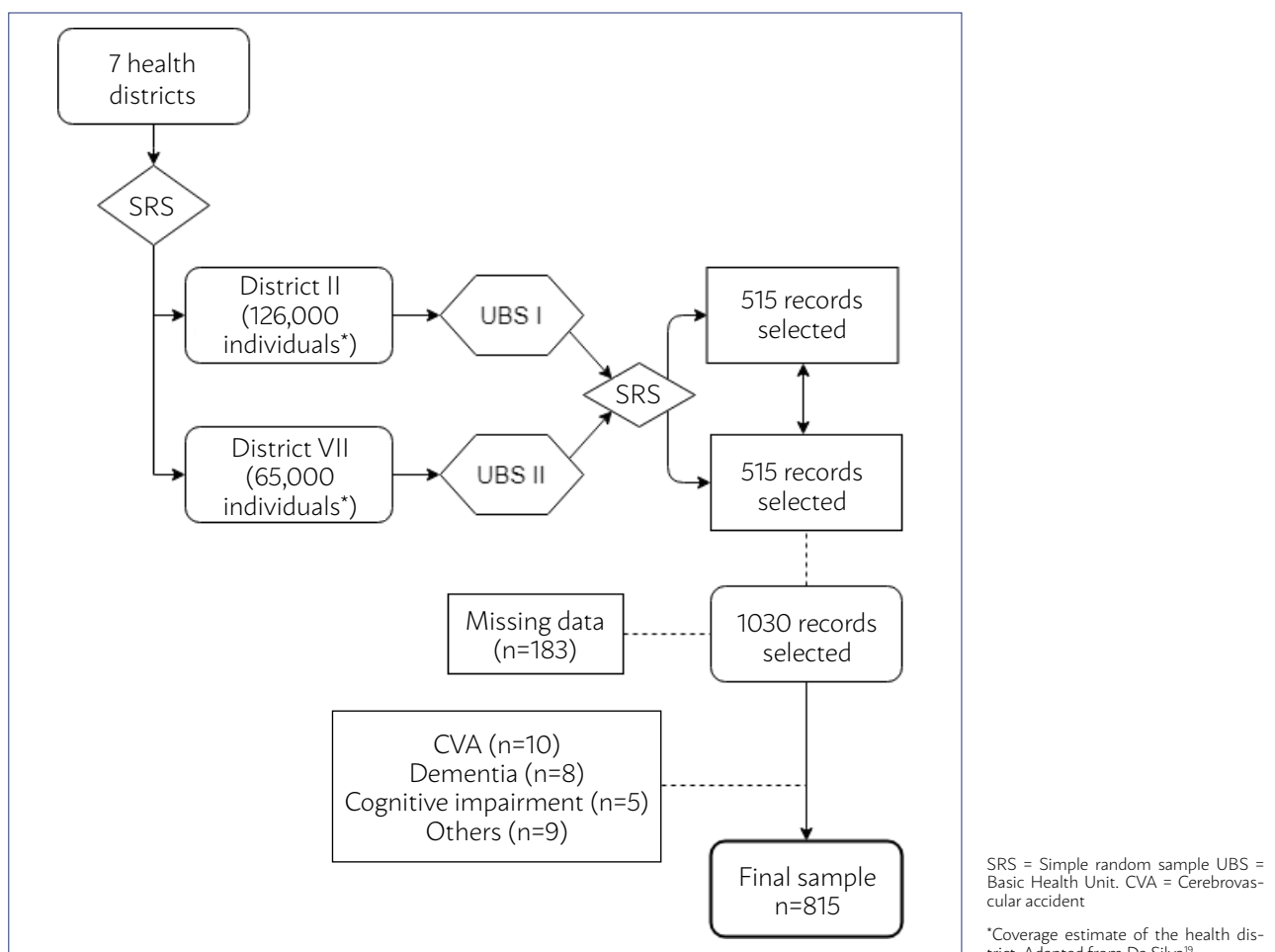
following terms: "major depressive disorder", "depression", "depressive disorder".

b) Regular use of antidepressants

c) The presence of "a" or "b" for at least three consecutive consultations with the unit doctor with a minimum interval of one month between them.

Definition of anxiety

The medical records of the patients were evaluated to determine the diagnosis of anxiety, considering the following criteria:

a) Description by the assistant physician of the following terms: "anxiety disorder", "panic disorder" (ICD10 F41.0), "agoraphobia" (ICD10 F 40.0), "state of post-traumatic stress" (ICD10 F43.1) and "generalized anxiety disorder" (ICD10 F41.1).

b) Regular use of antidepressants and/or benzodiazepines.

c) The presence of "a" or "b" for at least three consecutive consultations with the unit doctor with a minimum interval of one month between them.

Definition of cardiovascular risk factors

For this study, we considered obesity the diagnosis of obesity on the medical chart or a body mass index (BMI) greater than 29.9 kg/m². The BMI was calculated based on the measurements of weight and height of the subjects, using the formula [weight (kg)/ height (m²)].[20]

Hypertension was considered present if the participants presented the terms "SAH"/"Hypertension"/"Arterial Hypertension" described as a diagnosis in their medical record or at least one of the following criteria: systematic records of systolic arterial pressure ≥140 mmHg or diastolic arterial pressure ≥90 mmHg; prescription for anti-hypertensive medication.[21]

Diabetes was considered present if the participants had at least two records of fasting glucose ≥126 mg/dL, levels of glycated hemoglobin ≥6.5%, previous diagnosis of DM, prescription of drugs for diabetes or insulin injections.[22]

Hyperlipidemia was defined as a previous diagnosis of hyperlipidemia in the medical chart or isolated increase of LDL cholesterol ≥160 mg/dL, isolated increase of blood triglycerides (TG) ≥150 mg/dL, increased LDL cholesterol (≥160 mg/dL) and blood TG (≥150 mg/dL) concomitantly, reduction of HDL cholesterol (men <40 mg/dL and women <50 mg/dL), isolated or in association with increased LDL cholesterol or TG and/or use of antihyperlipidemic medication.[23]

Data Collection

The clinical variables were obtained by extracting the following data from the medical records: age, sex, socioeconomic characteristics, previous myocardial infarction (MI), peripheral arterial disease (PAD), peripheral neuropathy (DM2), diabetes mellitus type 2, hypertension, obesity, hyperlipidemia, anxiety, or depressive disorders.

In the case of multiple consultations, all information was included. Medical records with conflicting or incomplete information were not considered for the final analysis.

Ethical considerations

The study protocol was approved by the research ethics committee of the University Center Maurício de Nassau, Recife, Pernambuco, Brasil (CAAE: 79409717.6.0000.5193). The Informed Consent Form was waived since the information was collected from the medical records.

The research was conducted according to the Declaration of Helsinki and Resolution 466/2012 of the National Health Council, which deals with the ethical issues in research involving human beings.

Statistical analysis

The results were tabulated and statistically analyzed using the Statistical Package for the Social Sciences (version 20.0, SPSS Inc., Chicago, Illinois, USA).

Frequencies and percentage distributions were presented in tables for categorical variables. A

TABLE 1 - BASIC HEALTH UNITS AND POPULATION DISTRIBUTED PER HEALTH DISTRICT

District	I	II	III	IV	V	VI	VII	Total
Population (thousands)	16.4	126.2	53.2	73	106	19.7	65	459.5
Number of UBS	1	4	0	3	1	2	1	12

Adapted from Da Silva. [19]

comparative analysis was performed using the Chi-Square test for nominal and ordinal variables. Before analyzing the continuous variables, the sets of data were tested for normality using the Shapiro-Wilk test. When the distribution was considered normal for independent samples, the Student t-test was performed; otherwise, the Mann-Whitney test was used. The statistical significance for all tests was set at p-values <0.05. For normally distributed continuous variables, the mean values and standard deviations (SD) are shown.

The odds ratios were calculated using multiple logistic regression, as adjustments for gender, age, level of formal education, ethnicity, and employment status. The cardiovascular factor analyzed (hypertension, DM2, MI, PAD) was considered a dependent variable.

RESULTS

A total of 1,030 individuals was initially included in the study, of whom ten had a history of stroke, eight had dementia, five presented cognitive deficit, four had a history of TBI, three had schizophrenia and two epilepsy. Charts with missing data were also excluded, representing 183 subjects. As a result, 215 individuals were excluded from the study, and 815 were finally included for the data analysis (Figure 1).

The patients were mostly women (81.1%); their sociodemographic characteristics are presented in Table 2, distributed per gender. The clinical characteristics of the sample are presented in Table 3.

In comparison with NAD, depressive and anxious individuals showed a higher frequency of hypertension, obesity, and hyperlipidemia. The prevalence of depression was 10.3%, 27.1% of anxiety disorder, and 4.5% of the individuals had mixed anxiety-depressive disorder (MADD).

Depressive disorders were significantly more prevalent among women (OR = 3.06; 95% CI: 1.45 to 6.44, p= 0.003). We also found higher prevalence rates in the population with 60 years of age or older. There were no significant differences in the prevalence of anxiety or depression in relation to ethnicity, level of formal education, or employment status.

There was a significant association between anxious and depressive disorders and hypertension, obesity, and hyperlipidemia, even when adjusted for age, sex and socioeconomic variables, as shown in Table 4. The subjects of the depression and anxiety group present additional risk of arterial hypertension (OR = 2.11; 95% CI: 1.16 to 3.84; p=0.01), obesity (OR = 4.47;

TABLE 2 - SOCIODEMOGRAPHIC CHARACTERISTICS DISTRIBUTED PER GENDER

		Female (n=661)	Male (n = 154)	Total (n = 815)	P-value
Age	18–30	6.5% (43)	6.5% (10)	6.5% (53)	0.556
	31-45	24.5% (162)	19.5% (30)	23.5% (192)	
	46-60	32.8% (217)	37.7% (58)	33.7% (275)	
	>60	36.2% (239)	36.4% (56)	36.1% (295)	
Ethnicity	White	40.2% (226)	33.1% (51)	33.9% (277)	0.095
	Non-white	59.8% (395)	66.9% (103)	61.1% (498)	
Education	No formal education	15.0% (92)	17.0% (26)	12.4% (118)	0.577
	Primary education	59.5% (366)	57.1% (88)	55.7% (454)	
	Secondary education	23.6% (145)	24.8% (38)	22.4% (183)	
	Higher education	2.0% (12)	0.7% (1)	1.5% (13)	
Occupation	Formal employment	11.5% (76)	9.1% (14)	11% (90)	0.305
	Informal employment	33.6% (222)	44.8% (69)	35.7% (291)	
	Unemployed or retired	54.0% (357)	45.5% (70)	52.3% (472)	
Depressive disorders	Major depression	0.4% (3)	0.0% (0)	0.3% (3)	<0.001
	Depressive event	1.5% (10)	2.6% (4)	1.7% (14)	
	Others	12.4% (82)	2.6% (4)	10.5% (86)	
Anxiety disorders	GAD	0.4% (3)	0.6% (1)	0.4% (4)	0.466
	Panic syndrome	0.1% (1)	1.2% (2)	0.3% (3)	
	PTSD	0.1% (1)	0.0% (0)	0.1% (1)	
	Others	18.0% (119)	14.3% (22)	17.3% (141)	

GAD = generalized anxiety disorder; PTSD = pos-traumatic stress disorder

95% CI: 1.74 to 11.46; p=0.002), and hyperlipidemia (OR = 3.88; 95% CI: 1.81 to 8.3, p<0.001).

DISCUSSION

This paper reports the first study in Brasil, especially in a Northeast municipality, examining the prevalence of depressive and anxiety disorders in primary care patients and its association with cardiovascular risk factors.

We found a high prevalence of anxiety disorders (32.1%), which is consistent with a multicenter study that found a prevalence of 37.6% in primary care centers of four Brazilian capitals.[15] According to the authors of the study, widespread urban violence and adverse socioeconomic conditions may explain the high proportions of anxiety disorder prevalence in Brasil.

The prevalence of depression (10.3%) was also consistent with the literature in terms of prevalence in primary care.[5,24] Depressive disorders are the second most common chronic disease in primary care, with 12% of the patients meeting the diagnostic criteria for depression. However, only half of these patients are usually diagnosed.[16] The literature demonstrates that the clinical presentation of depression can be particularly different between non-whites, elderly, and men, which might partially account for the underdiagnosis of depression in Basic Health Units.[25]

Approximately 4.5% of the individuals studied received a diagnosis of MADD. There is no consensus about the prevalence of MADD due to the variety of diagnostic criteria. Some studies have reported a prevalence of 1.8%-11% in individuals in primary care.[26,27] The diagnosis of MADD in primary care patients is of great importance, considering its relation with the development of other risk factors, such as lifestyle, smoking, and alcohol consumption, in addition to metabolic syndrome.[28] Mortality from all causes, including cardiovascular diseases, was particularly higher in female populations with MADD.[29]

TABLE 3 - CLINICAL CHARACTERISTICS OF THE POPULATION STUDIED

	AD (n=215)		NAD (n=600)	Total (n=815)	p-value
	Anx. (n = 149)	Dep. (n = 103)			
Age (years)	53.8±15.4	55±14.3	53.4±15.3	53.9±15.3	0.10
Sex (fem)	83.2%	92.2%	79.7%	81.1%	0.65
Hypertension	53.7%	63.1%	44.8%	48.8%	<0.001*
DM 2	20.1%	20.4%	18.3%	19.3%	0.27
Obesity	9.4%	5.8%	2.7%	4.2%	<0.001*
MI	0%	1%	0.3%	0.4%	0.78
PN	2%	0%	0.8%	1%	0.47
PAD	0%	0%	1.3%	1%	0.21
Dyslipidemia	26.8%	23.3%	14.3%	17.3%	0.001*
Smoker	6.6%	5.2%	5.6%	5.9%	0.54
Alcohol consumption	1.3%	0%	1.7%	1.5%	0.64

AD = anxiety and depression group Anx = anxiety Dep = depression NAD = no anxiety or depression group, DM2 = Diabetes mellitus type 2, MI = myocardial infarction, PN = peripheral neuropathy, PAD = peripheral arterial disease.

TABLE 4 - RESULTS OF THE LOGISTIC REGRESSION MODEL FOR CARDIOVASCULAR RISK FACTORS

Variable	Type of analysis	Coefficient	Standard error	z	P-value	OR	CI 95%	
							Bottom	Top
SAH	Raw	0.613	0.162	14.3	<0.001	1.85	1.34	2.53
	Adjusted	0.535	0.198	7.3	0.007	1.70	1.16	2.51
Obesity	Raw	1.204	0.353	11.6	0.001	3.34	1.67	6.67
	Adjusted	1.239	0.385	10.3	0.001	3.45	1.62	7.34
Dyslipidemia	Raw	0.720	0.195	13.6	<0.001	2.05	1.40	3.01
	Adjusted	0.628	0.220	8.1	0.004	1.87	1.21	3.88

SAH = systemic arterial hypertension OR = odds ratio. CI 95% = a confidence interval of 95%. analysis adjusted for sex, age, educational level, ethnicity, and occupation.

The fact that depressive disorders are three times more frequent among women than in men is in agreement with previous Brazilian epidemiological research.[15,30] Although the underlying mechanisms remain unclear, women seem to experience specific forms of diseases related to depression (premenstrual dysphoric disorder; postpartum depression) that are associated with hormonal changes and, therefore, contribute to the increased prevalence. Another difference between the sexes seems to be the trigger for depression; woman usually present internal triggers, and men external.[31]

As in previous studies[15,30,32] we found variations in the prevalence of depression or anxiety disorders in relation to sociodemographic variables. Cardiovascular risk was slightly increased in patients with depression and anxiety when all sociodemographic variables were entered simultaneously in the regression analysis (Table 4).

In accordance with other studies[28,33,34], we found an association between depression, anxiety, and obesity. According to Santos et al.[35], the high consumption of carbohydrates seems to be related to the development of anxiety and depressive behavior after stressful situations. Our study design prevents conclusions about whether the psychiatric disorders studied were the cause or consequence of obesity. Presumingly, these conditions are mutually related, and one contributes to the development and maintenance of the other.

We found a greater risk of dyslipidemia among anxious and depressive patients, similarly to the results of previous studies.[28,36,37] The increased risk of dyslipidemia and especially of obesity among people with symptoms of anxiety and depression seems to be mediated by a mild chronic inflammation.[36] Santos et al.[38] described an association between morphological changes in the hippocampus and disturbances in the levels of chronic inflammation mediated by cortisol in patients with mood disorders. Multiple etiological factors, such as smoking, a diet rich in carbohydrates, and genetics, also related depression and anxiety to lower levels of HDL cholesterol and abdominal obesity.[30]

Depressive disorders are also pointed out as possible effects of individuals with chronic pathologies: approximately 25% of individuals with DM2 have the concomitant diagnosis of depression. Upon assessing the causality between both conditions, the following risk factors were found for depression associated with the pre-existence of DM2: obesity, metabolic syndrome, and the very stress of coping with the disease. On the other hand, depression could collaborate with the development of DM2 due to the use of antidepressants, weight gain, indisposition and consequent nonpractice of physical exercises.[39] A meta-analysis developed by Nouwen et al.[40] showed an increase of 24% in the risk of developing depression in patients with DM2 in comparison to healthy groups. In individuals with asthma, the younger ones seem to evolve with more ADD as a causal effect.[41]

The AD group had approximately two times more chance of hypertension than the NAD. Previous studies have demonstrated an association between depression, anxiety, and hypertension in individuals of basic care.[9,28,42,43] Ho et al.[42] reported that depressive or anxious patients usually attend the unit of primary care more often. The higher frequency of consultations results in more measurements of blood pressure, therefore, increasing the chances of a hypertension diagnosis.[42] On the other hand, some recent studies suggest an association between beta-blockers and depression.[43] In this context, the antihypertensive medication could lead to depression. However, these data are controversial in the literature.

Although the prevalence of DM2 was higher in the NAD group, there was no statistical significance between the groups, going against the classical association between depression, anxiety and DM2.[11] This finding is in agreement with those presented by O'Connor et al.[44] The higher risk of anxiety and depression among diabetic patients, reported in some previous studies, may have been influenced, in part, by the presence of comorbidities associated with DM2. In our sample, the prevalence of comorbidities such as myocardial infarction, peripheral neuropathy, and peripheral arterial disease, was low. This may have contributed to the lack of association between the conditions.

LIMITATIONS

The results of this study must be considered in the context of some limitations. Although this study included an expressive and representative sample of the population studied, we cannot draw clear conclusions about the associations identified between depression or anxiety and cardiovascular risk factors due to the cross-sectional design of the study.

Because this is a descriptive study based on data from medical records, we cannot ensure that the descriptions of diagnostic terms such as "anxiety" and "depression" from the medical records are related to an accurate diagnosis of such conditions. This fact may have over or underestimated the prevalence of the conditions.

Some cohort studies suggest that hypertension is not caused by depression or anxiety. However, these data are controversial in the literature. Because this is a cross-sectional study, associations can suffer from the influence of the reverse causality phenomenon and do not allow us to infer or discard the effect of coincidence between depression, anxiety, and cardiovascular risk factors.

Basic care in the municipality of Jaboatão presents population coverage close to 50%. Furthermore, the richest population does not usually attend these units, which can contribute to information bias. Thus, our findings cannot be extrapolated to that population subgroup.

CONCLUSION

The prevalence of depression and anxiety disorders were, respectively, 10.3% and 27.1%. Individuals with MADD accounted for 4.5%. Depression and anxiety were associated with a greater prevalence of arterial hypertension, obesity, and hyperlipidemia.

Funding and conflicts of interest

RESUMO

INTRODUÇÃO: *Transtornos de ansiedade e depressão (TAD) são os distúrbios psiquiátricos mais comuns no mundo. Dentre a população adulta atendida na atenção básica, estima-se que a depressão afete cerca de 14,3% desses indivíduos mundialmente, podendo este valor ir de 21,4% a 31% no Brasil. A ansiedade afeta até 33,7% da população durante sua vida.*

OBJETIVO: *Estimar a prevalência de TAD em pacientes da atenção primária em um município do Nordeste brasileiro e associar sua ocorrência com fatores de risco cardiovasculares.*

MÉTODOS: *Um estudo de coorte transversal com análise de prontuário de pacientes atendidos em unidades de saúde da família de Jaboatão dos Guararapes, Pernambuco. Foram incluídos pacientes ≥18 anos e acompanhados regularmente. Critérios de exclusão: história de trauma crânio encefálico, abuso de álcool e drogas, acidente vascular cerebral prévio, doenças ou medicações que mimetizem sintomas de TAD. Os indivíduos foram divididos em dois grupos, a depender da presença ou não de TAD, e os fatores de risco cardiovascular foram comparados entre os grupos.*

RESULTADOS: *De um total de 1.030 indivíduos recrutados, 215 (20%) foram excluídos. O grupo não TAD apresentou mais história de infarto do miocárdio e etilismo. A prevalência de depressão foi de 10,3%, a de ansiedade foi de 27,1% e a associação entre os dois foi de 4,5%. Houve associação significativa entre TAD e hipertensão (OR = 2,11; IC95: 1,16-3,84; p=0,01), obesidade (OR = 4,47; IC95%: 1,74-11,46; p=0,002) e dislipidemia (OR = 3,88; IC95%: 1,81-8,3; p<0,001).*

CONCLUSÃO: *TAD estão associados com maior risco de hipertensão arterial, obesidade e dislipidemia.*

PALAVRAS-CHAVE: *Ansiedade. Depressão. Fatores de risco. Doenças cardiovasculares. Atenção primária à saúde.*

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