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Prevalence of Mental Disorder in Adults and Elderly

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Abstract**—** *These functional loses can be quantified at the population level by multiplying the prevalence of those disorders by the average level of disability associated with them, it is estimated that 50 million years of life are lost because of these disabling morbidities. It is a cross-sectional and descriptive epidemiological research. The sample consisted of 1356 individuals. For the evaluation on mental disorders - stress, anxiety and depression - BECK's inventory and Lipp's stress questionnaire were utilized. It was verified that adults are more stressed (64.5%) than the elderly (60.1%). Regarding the anxiety and depression levels, adults had higher diagnostic numbers, with 27% and 17,8%, respectively, against 24,9% and 16,4% among the elderly. With high global prevalence, being considered a public health problem. It's worth pointing out that in our finding, the highest prevalence was of stress in adult population, however, it was verified in data analysis a linearity in relation to the proportions between adults and the elderly, leading to the understanding that adults with mental disorders tend to be elders with mental disorders. The incentive of healthy habits, a favorable environment for the practice of leisure and social life, are responsible factors for the most effective prevention in order to reduce the morbidity burden of mental disorders.*

Keywords**— Mental Disorders. Major Depressive Disorder, Anxiety, Psychological Stress, Epidemiology.**

I. INTRODUCTION

According to data from the World Health Organization, in 2015 the estimated prevalence of people with common mental disorders was of 4,4% for depression and 3,6% for anxiety. Representing 322 million of people affected by the morbidities [1,2]. Since many people experience both conditions simultaneously When people experience both conditions simultaneously it is called comorbidities (diseases that coexist in the same subject), that can be more serious versions of the diseases. The prevalence rates vary according to age, with a peak in older adulthood (above 7,5% among women aged 55-75 years and above 5,5% among man the same age group) [1,3].

Common mental disorders can lead to considerable health and organic functioning loses. These functional loses can be quantified at the populational level by multiplying the prevalence of those disorders by the average level of disability associated with them, it is estimated that 50 million years of life are lost because of these disabling morbidities [4,5]. Beyond that, researchers have shown that people with some sort of mental disorder have a higher mortality level than their peers without clinical presentation [6–8].

This is a multifactorial psychosomatic disorder, that needs time to be installed and is therefore considered a chronic disease, without a well-defined etiology, that is more prevalent in adults and the elderly than in children and adolescents [9]. The risk factors are diverse, ranging from socioeconomic background, genetic and

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physiological dysfunctions [10] to pre-existing diseases. Directly influencing the onset of mental disorder [11].

These factors add up, leading to a favorable environment to the emergence of mental disorder [12,13]. Its morbidity is perceived at the moment the person is incapable of performing their instrumental activities of daily life, being limited to restricted and inmate environments and little contact with other people, having a direct impact on health and life quality [14, 15].

In view of the above, given the magnitude and impact of mental disorders, this study has the goal of identifying the prevalence of common mental disorders in adults and elderly from the city of Vitória da Conquista, Bahia.

II. METHODOLOGY

This is a cross-sectional and descriptive epidemiological research, realized in the city of Vitória da Conquista - BA, located in the Southwest of Bahia, Brazil (geographical coordinates latitude -14º 53' and longitude -40º 48'). The city is part of the Southwest economic region and is 509 km away from the capital - Salvador. It has a Gross Domestic Product (GDP) of 3.469 billion and a Human Development Index (HDI) of 0.708. This is a cut from a larger project, entitled "Epidemiological profile of obesity in the city of Vitória da Conquista/BA". The sample consisted of 1356 subjects, of whom 350 were elderly and 1006 were adults, from both genders. All participants were educated about the risks and benefits and all signed the Informed Consent Form (ICF).

To obtain the data the socioeconomic questionnaire was used for the variables: gender, scholarity, type of education, marital status, social class, occupation. It was part of the characterization of the sample and will be presented in table 1 and 2.

Table 1 – Elder Characterization.

Variables		n	%	Total (n)
Gender	Male	108	30,9	350
	Female	242	69,1	
Marital Status	Single	54	15,9	339
	Married	169	49,9	
	Divorced	29	8,6	
	Widower	87	25,7	
Occupation	Yes	49	14	350
	No	301	86	
Social Class	B	1	0,3	288
	C	24	8,3	
	D	164	56,9	
	E	99	34,4	
Scholarity	Incomplete Elementary	151	56,8	266
	Complete Elementary	18	6,8	
	Incomplete High School	13	4,9	
	Complete High School	34	12,8	
	Incomplete College	3	1,1	
	Complete College	12	4,5	
	No scholarity	35	13,2	
Type of education	Public	210	94,2	223
	Private	13	5,8	

Source: Own research 2018.

Table 2 – Adult Characterization.

Variables		n	%	Total (n)
Gender	Male	288	28,6	1006
	Female	718	71,4	
Marital Status	Single	485	48,5	1001
	Married	446	44,6	
	Divorced	59	5,9	
	Windower	11	1,1	
Occupation	Yes	675	67,2	1005
	No	330	32,8	
Social Class	B	49	5,5	901
	C	270	30	
	D	440	48,8	
	E	141	15,6	
Scholarity	Incomplete Elementary	119	12,1	987
	Complete Elementary	32	3,2	
	Incomplete High School	57	5,8	
	Complete High School	234	23,7	
	Incomplete College	302	30,6	
	Complete College	217	22,0	
	No scholarity	26	2,6	
Type of Education	Public	732	75,3	972
	Private	240	24,7	

Source: Own research 2018.

To obtain the evaluation of mental disorders - stress, anxiety and depression - BECK's anxiety inventory questionnaire (BAI - *Beck Anxiety inventory*), BECK's depression inventory (BDI - *Beck Depression*

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Inventory) andLipp's stress questionnaire were utilized [16-18].

The BAI is a self-report scale, consisting of 21 items, that measures the intensity of anxiety and contains descriptive claims 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 version manual of the Beck Scales, which reflects levels of increasing severity of each symptom as: 1) "Absolutely no"; 2) "Lightly: did not bother me much"; 3) "Moderately: It was very unpleasant, but I could bear it"; 4) "Severely: I could hardly bear it" [19, 20].

The BDI is a self-report scale, consisting of 21 items, each with four alternatives, implying increasing degrees of severity of depression, with scores ranging from 0 to 3. The items were selected based on observations and reports of symptoms and attitudes in psychiatric patients with depressive disorders and weren't chosen to reflect any theory of depression in particular [21].

The Lipp's Inventory of Symptoms of Stress for Adults (ISSL) intends to identify symptoms of stress in a objective manner according to the symptomatology the patient presents, evaluating the types of symptoms (somatic or psychological) and the phase he's in. It presents a four-phase stress model (alert, resistance, near exhaustion and exhaustion) based initially on Selye's three-phase model (alert, resistance and exhaustion), but doesn't invalidate it, being only an improvement of the first proposed model [22].

The treatment and tabulation of the data were realized with the aid of the Excel program and the descriptive analysis, presenting the percentage and the "n" of the sample, was made with the assistance of *Statistical Package for Social Sciences*- SPSS, version 25.0 software. The participants were educated on the utilized methods according to the Resolution 466/12 (National Health Council), which is composed of international research documents that involve human beings. It should be noted that the project was approved by the Research Ethics Committee of the Independent Faculty of the Northeast (Legal Advice nº 1.859.545).

III. RESULTS AND DISCUSSION

In our study, we obtained 1356 individuals, adults and seniors from both genders, some of whom didn't answer all questionings and therefore we had lost in some of the questionings, however, these loses don't diminish the importance of the presented data.

As shown in sample characterization table 1 and 2, in our study the majority of the collected individuals were adults and the female audience was higher in both age categories. The majority were married. Regarding work, the majority of adults claimed to work, which was inversely verified among the elderly, something we predicted, since a good part of the elderly are retired [23]. Both groups have similar social classes, which shows a linearity among the adults who are of classes B, C, D and E in relation to aging. Adults had a higher average scholarly level than the elderly, whose majority had an incomplete elementary school. Most of them also claimed to have studied in public education institutions.

According to the World Health Organization, all the factors that characterize the sample are also considered important risk factors for the onset of chronic diseases and among them, mental disorders (stress, anxiety, depression) [1, 23, 24]. The socioeconomic profile of the subject reflects their basics characteristics, having a strong influence on their way of life [25, 26]. Good health also requires a good educational level, as it is verified in literature that people who have a low level of scholarity are also more likely to have chronic diseases [19, 27]. As well as staying in a lower social class, having only cheaper and high in fat food available. Their leisure is generally reduced either by low economic power or by environmental factors [28–30].

In our samples, the number of adults was higher than that of the elderly, but in relation to mental disorders, the two populations presented similar values in percentage. It was verified that adults are more stressed (64.5%) than the elderly (60.1%). Regarding the anxiety and depression levels, adults had higher diagnostic numbers, with 27% and 17,8%, respectively, against 24,9% and 16,4% among the elderly. The high number of adults compared to those of the elderly may justify the higher prevalence of mental disorders in adults.

Table 3. Prevalence of Stress, Anxiety and Depression in adults and elders.

		Adults		Elders	
Variables		**n**	**%**	**n**	**%**
Stress	Without	292	35,5	110	39,1
	With	530	64,5	171	60,1

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Anxiety	Without	587	73,0	208	75,1
	With	217	27,0	69	24,9
Depression	Without	699	82,2	249	83,6
	With	151	17,8	49	16,4

Source: Own research, 2018.

Linearity in relation to the number of adults and elderly with a mental disorder is evident. However, there is a major difference between mental disorders and mental illness [31]. The use of the term "illness" implies an elaborate etiology in which symptoms arise from a common pathogenic pathway, while the term "mental disorder" refers to a syndromic constellation of symptoms that fit empirically, often for unknown reasons [14,31].

Demonstrating that these psychosomatic symptoms are multifactorial and can lead to greater problems during the course of organic aging [32]. Demonstrating that the care for the reduction of mental disorders must be immediate, always aiming at a better quality of life and healthier habits [31, 33].

The magnitude of these environmental factors and their unequal distribution among the population could provide a unique perspective. Regarding poverty, studies have explored the reversibility of brain changes upon improvements on economic status, unraveling the potential role of relative and absolute poverty and examining how poverty could modulate the underlying biology of mental disorders [3].

Stress from day to day, social and family life, work, financial issues, have been satisfactory bridges to achieve success in correlating with the symptoms of anxiety and also depression, showing how they may intervene in physical and, especially, psychological wellbeing of individuals. Today, mental disorders are being considered as one of the biggest disabling morbidities in the world [1, 34]. Thus, there is a great need for directing attention to these diseases in order to mitigate negative impacts, modeling preventive health actions [15].

IV. FINAL CONSIDERATIONS

Therefore, it's verified that mental disorders don't have simple etiology elucidated. With high global prevalence, being considered a public health problem. It's worth pointing out that in our finding, the highest prevalence was of stress in adult population, however, it was verified in data analysis a linearity in relation to the proportions between adults and the elderly, leading to the understanding that adults with mental disorders tend to be elders with mental disorders. The incentive of healthy habits and a favorable environment for the practice of leisure and social life are responsible factors for the most effective prevention in order to reduce the morbidity burden of mental disorders.

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