



RESEARCH ARTICLE

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## PREVALENCE OF AUTOMEDICATION IN ELDERLY RESIDENTS IN THE URBAN AREA OF ALMEIDA LICENSE CITY BEFORE RISK FACTORS OF THIS PRACTICE

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### ABSTRACT

Self-medication is a very common and worrisome practice practiced by many people and can pose health risks. The elderly represent a higher age group of medicines, which makes it necessary to pay special attention to their self-medication. The consumption of medicines without the guidance of the prescribing professional represents a public health problem, awakening the importance of knowing this practice among the elderly and the risks it may have on their health. This study aims to identify the prevalence of self-medication in elderly residents in the urban area of Licínio de Almeida-BA. A quantitative cross-sectional descriptive study was conducted with 187 elderly, with data collection from the application of forms. Data were analyzed using Microsoft Office Excel 2013. The research project was approved by the Research Ethics Committee, CAAE 14142019.4.0000. The results showed that the profile of the studied population showed a predominance of female participants with low education. The practice of self-medication had a prevalence of 26.11%. Knowledge of the risks that self-medication can cause or even insecurity to start a drug without medical guidance is presumed to be influential factors for non-self-medication.

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## INTRODUCTION

The misuse of drugs without prescription or dental represents a major difficulty for public health, especially by the population of the largest age group in the country, since they are in a phase, in which they complain of many pains, which can lead them to self-medicate (Luz et al., 2013). The elderly, considered an individual who is sixty years old or older, is the majority in the use of health services and medication

consumption (Vernisi; Silva, 2016), which has implications for health services in terms of ability to respond to demand and costs (Bezerra et al., 2016). In the aging process, changes occur that modify the metabolic and physiological functions of the individual, causing a predominance of sensitivity to the therapeutic and adverse effects of the drug in the elderly (Silva; Fontoura, 2014). Thus, a close attention to the health of the population in this age group is necessary, since the use of drugs is often essential due to the various comorbidities that

are prevalent with advancing age, which makes self-medication a possible factor for health risk (Monteiro *et al.*, 2014). Self-medication consists in the search for symptom relief or cure of diseases through the use of over-the-counter medications and/ or guidance from the prescribing professional (Rodrigues; Pereira, 2016). It is a common practice in the population, and the determining factors for this cause can be explained by previous observations of the symptoms of the disease, knowledge of the drug, restricted financial resources to search for health professionals, advertising intervention, guidance from neighbors, family, friends, among others (Gama; Secoli, 2017). However, the use of over-the-counter drugs in many circumstances poses serious risks to the elderly population such as gastrointestinal disorders, kidney and liver diseases, poisoning, adverse reactions, and the possibility of hypersensitivity reactions, momentarily relieving camouflage symptoms. The basic problem, digestive hemorrhage, bacterial resistance among many others (Rodrigues, Pereira 2016). In this sense, the objective of this study is to estimate the prevalence of self-medication in elderly residents of Licínio de Almeida-BA, considering the risk factors of this practice, in order to contribute to the health promotion of the elderly, as well as to identify the factors determinants of this practice and provide information on the risks that self-medication may entail.

## METHODOLOGY

This is a quantitative cross-sectional descriptive study conducted in elderly aged 60 years or older living in the urban area of Licínio de Almeida-BA. This municipality is located in the state of Bahia, 744 km from Salvador, the Bahian capital, located at an altitude of 869 meters, and has the following geographical coordinates: Latitude: 14 ° 40 '58' 'South, Longitude: 42 ° 30' 27 " West (City Brazil, 2018). According to data from IBGE 2010, the elderly population in the urban area is 794 elderly, which stands out when compared to the number of individuals over 60 years of the same size neighboring cities. This study complied with all ethical principles related to research with human beings according to Resolution No. 466/2012, and was approved by the Research Ethics Committee of the Independent Faculty of the Northeast (CEP-FAINOR), through the Opinion No. 3,368,464 under number CAAE - 14142019.4.0000. Inclusion criteria were: Age greater than or equal to 60 years; and be resident in the urban area of the municipality. Were excluded from the study all those who refused to sign the Informed Consent (IC); patients with mental disorders with difficulties to understand the research and elderly hospitalized in hospital beds. Data collection was performed in July and August 2019. The instrument for data collection consisted of two forms: the MEEN - Mini Mental State Examination; (Annex 1), for cognitive and functional assessment of the individual; and the targeted theme form (Appendix 2), which is only applied to those who have achieved the minimum score required to certify their ability to respond. For the organization of the collected data, they were released in the Microsoft Office Excel 2013 spreadsheet in order to calculate the absolute frequency and relative frequency, which will be analyzed through tables and graphs.

## RESULTS AND DISCUSSION

This study investigated the profile of elderly drug users in the urban area of Licínio de Almeida-BA, in which 187 elderly

participated in the research. Of these, 30 were not able to answer the form with the targeted theme, as observed by the criteria of cognition and functional capacity established by the MMSE (Mini Mental State Examination) form. Among the 157 individuals who answered the form, 66.88% (n = 105) are female, with a higher prevalence in the range of 61 to 70 years (40.76%). In general, the elderly who participated in the research have low education, mostly composed of non-literate (35%) or incomplete elementary (33%). The sociodemographic data were auxiliary to characterize the study population, allowing a knowledge of the general profile of the interviewees as shown in Table 1.

**Table 1. Profile of the elderly interviewed in the urban area of Licínio de Almeida - BA, according to sociodemographic characteristics**

Sociodemographic characteristics	N	(%)
<b>Gender</b>		
Male		33.12
Feminine	52 105	66.88
<b>Age range</b>		
60years	8	5.09
61to 70 years old	64	40.76
71 years old to 80	54	34.38
years old 81 to 90	23	14.64
From 91 to 95 years old	8	5.11
<b>Marital status</b>		
Married	93	59.24
Divorced	9	5.73
Single	6	3.82
Widowed	49	31.21
<b>Education Level</b>		
High school	11	7.01
University education	1	0.64
Complete Elementary	34	21.66
Incomplete Elementary	52	33.12
Not Literate	55	35.03
No reply	4	2.55
Total	157	100

Source: Own Research

As shown in Table 2, the collected data indicate that in the city of Licínio de Almeida-BA, most respondents (83.44%) make use of some medication. What is consistent with the studies by Silva *et al.* (2014), in which 90% of respondents used at least one drug, justifying that when they do not make the correct use and cannot adhere to treatment, they resort to self-medication. Still according to other studies the average of medications used by these individuals is from two to five medications per day, which makes them polymedicated elderly (Monteiro, *et al.*, 2014). Silva and Macedo (2013) defined polypharmacy as the simultaneous use of two or more drugs and considered it a common practice among the elderly, because precisely with advancing age various pathologies appear, which makes them larger drug users and vulnerable to risks health as adverse effects and drug interactions. Among the elderly who claim to use medication, those who do so by medical indication assume a total of 56.69% (n= 89), in contrast 26.11% (n = 41) reported practice self-medication. According to Versini e Silva (2016), the main factors that favor the consumption of medicines by the elderly population occur due to the prevalence of chronic diseases, or in order to improve their quality and lifespan. The prevalence of self-medication found in the present study was lower than the values reported in other studies with the elderly.

In Valparaíso de Goiás, the prevalence was 61.8%, in Diamantina-MG, 63.34% (Pinto *et al.*, 2012), in Itacoatiara-AM, 66.67% (Pereira *et al.*, 2014), in São Luís-MA, 67% (Monteiro *et al.*, 2014), in Picos-PI, 77.0% (Pereira *et al.*, 2017), in Pouso Alegre-MG, 77, 3% (Galhardo, Assunção,

2013), and in Ipatinga-MG was 73.3% (Carvalho *et al.*, 2018). However, there are studies that obtained similar results: In Campinas-SP, the prevalence was 8.9% (Oliveira *et al.*, 2012), in Tubarão-SC, 29.2% (Araujo, Galato, 2012). in Goiânia-GO, 35.7% (Santos *et al.*, 2012), in Sorocaba- SP, 42% (Duarte *et al.*, 2012).

**Table 2. Data collection of respondents who do not use any medication**

Medication Use	N	(%)
Do you use any medicines?		
Not	26	16,56
Yes	131	83,44
Were the medications used all prescribed by a doctor?		
Not	41	26.11
Yes	89	56,69
No reply	27	17,20
What is the reason for the use of self-medication?		
Referral of the acquaintance / family member / friend		7.64
Pharmaceutical Indication		0.64
Difficulty of access to health professionals		15.29
Are you aware of the medicine		75.16
in reply	12	1 0.64
Others	24	118 1
Total	157	100

Source: Own Research

Self-medication is a frequent attitude in a large part of the population and consists in the search for symptom relief or cure of diseases through the use of over-the-counter medications and guidance from qualified professionals (Rodrigues; Pereira, 2016). It is a very common practice in different cultures and at different ages, and is conceptualized as the voluntary action of a person choosing and making use of the drug to treat their health problems (Gama; Secoli, 2017). Although the number of self-medication practitioners was lower than the self-medication group, this does not minimize the risks that are attributed to this practice. The act of self-medication can bring risks, such as the emergence of gastrointestinal problems, kidney and liver disease, poisoning, adverse reactions being potentially harmful to health (Rodrigues, Pereira 2016). The use of drugs without technical criteria, or without professional follow-up, falls under the irrational use of drugs and it is known that this conduct can generate health risks to the population (Fernandes, Cembranelli, 2015).

Polypharmacy has also been a contributing factor to the health risks of the elderly (Silva *et al.*, 2012). Even being considered a common attitude, self-medication did not prevail among the elderly in the urban area of Licínio de Almeida-BA, since these participants always reported seeking medical or pharmacist advice to guide them. It is noteworthy that the pharmacist's role in combating the use of drugs without medical or dental prescription is to contribute to the adherence to a rational and responsible practice, which aims to transform this act into a recommendation with correct information and promote the rational use of medicines (Tavares, 2017). Oliveira *et al.*, (2012), attributed the low self-medication recorded in their studies to a greater use of health services, dental consultations and membership of a health insurance plan in which they restrict the practice of self-medication among the elderly; And most of the drugs used are over-the-counter, as well as the quality of pharmaceutical care. The present study also highlights that among the elderly interviewed there is a prevalence of medication use by females 66.88% (n = 105) is the medication indicated by the doctor

71.97% (n = 95) or if there is self-medication 74.42% (n = 32). While in men the administration of medication indicated by the doctor was 28.03% (n = 37) and self-medication in 23.26% (n = 10). This prevalence was also observed through a study with the elderly in a Health Unit (BHU) in the city of São Luís - Maranhão, identifying that 68.65% of women practiced self-medication, pointing out that the greater tendency of women to self-medicate This may be justified by the fact that it tends to worry more about the home, the family's health, and greater access to pharmacies (Monteiro *et al.*, 2014). The self-medication prevalent for females was observed in another study conducted in two Reference Centers of Social Assistance (CRAS) of the municipality of Picos, Piauí, in which 85.21% (n = 63) of the sample group consisted of women who self-medicated, attributing this result to the higher health-seeking behavior, the high rate of male mortality during adulthood, and according to IBGE statistics, the population of Piauí (51.2%) is composed of women (Pereira *et al.*, 2017). The self-medicated female population has low education, with incomplete primary school prevalent 37.21% (n = 16) and non-literate 18.60% (n = 8), which was also observed in the male population with incomplete primary school 11,63 % (n = 5). Low education can be considered as an important risk factor for episodes of medication administration and dosing errors in this age group (Pereira *et al* 2014). The present research shows that the self-administered medication administration by the interviewed elderly occurs mainly because they have knowledge of the medication, and in general, the health complaints that lead to self-medication are due to allergies, flu, fever, earache, back pain, muscle pain, stomach, knee, joint pain, headaches, gastritis, insomnia and eye pain. It is demonstrated that the knowledge acquired in life experiences generates greater confidence in those who self-medicate (Silva; Goulart; Lazarini, 2014). As for health complaints that lead to the practice of self-medication, these may be supported by the free sale of most medicines used, or by their storage in users' homes (Silva; Goulart; Lazarini, 2014). Given the common symptoms presented in the research and cited during the interview, it can be observed a predominance of the use of drugs belonging to the class of analgesics, antipyretics, antitussives, anti-influenza and anti-inflammatory drugs, which is consistent with other studies (Moura *et al.*, 2016).

**Table 3. Self-medication of the interviewees in the city of Licínio de Almeida-Ba**

Self-Medication: Hazards and Usage Information	n	(%)
Before self-medication, he sought information or clarification about the medicine?		
Not	16	10.19
Yes	24	15.29
No reply	117	74.52
Are you aware of the risks of medicine with which can auto medicine cause?		
Not	11	7.01
Yes	29	18.47
No reply	117	74,52
Have you had a problem with self-medication?		
Not	39	24,84
Yes	1	0,64
No reply	117	74,52
Total	157	100

Source: Own Research

From the data collected, it can be seen from table 3, that part of the interviewees who practice self-measurement, know the risks that can cause (15.29%) but this is not an impediment to this practice. In addition, among the elderly interviewed, only

a small portion are concerned about having additional knowledge or information about the use of the drug without medical authorization, and only one person reported having had a problem using medication without proper guidance. Inappropriate use of substances and even estimated basic drugs by the population, such as over-the-counter drugs (MIPs), such as painkillers, one of the most commonly used classes of drugs through self-medication (Arrais *et al.*, 2016), can cause several implications, such as: hypersensitivity reactions; Bacterial resistance; stimulus for antibody production without precision; drug addiction without the real need; digestive hemorrhages (Birth, Valdão, 2012). Still, the momentary relief of symptoms can disguise the underlying disease, which may get worse (Pereira *et al.*, 2017). However, if self-medication is performed responsibly and guided by a pharmaceutical professional who will provide correct information and promote the proper and rational execution of medicines, the health risks of the elderly can be reduced. For this, the pharmaceutical professional must be aware of his function and professional competences, being able to distinguish the limits between his knowledge and that of the physician (Nascimento, Valdão, 2012). The pharmacist is the health professional with easy access to the population, since pharmacies must have their presence throughout the operation. Although the ease of purchasing medicines in these establishments cooperates for the practice of self-medication, the presence of the pharmacist should contribute to the correct orientation regarding the use of medicines, in order to ensure the improvement of the patient's quality of life and the promotion rational use of medicines (Tavares, 2017).

### Final Considerations

The study on the consumption of medicines by the elderly population of Licínio de Almeida-BA revealed that most individuals use the medication as directed by the medical professional. Knowledge of the risks that self-medication can cause or even insecurity to start a drug without medical guidance is presumed to be influential factors for non-self-medication. The pharmacist is the health professional responsible for promoting the rational use of medicines, in order to ensure the correct information, and to avoid the possible risks that may occur during treatment, considering the promotion and recovery of the health of these individuals.

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ANNEXES

Annex 1

Nome:  Data:  /  /

Idade:  Escolaridade:

**ORIENTAÇÃO (1 ponto para cada resposta correta):**

Temporal - qual é o:  Espacial - onde estamos:

Ano:  País:

Estação:  Estado:

Dia da semana:  Cidade:

Dia do mês:  Rua/local:

Mês:  Andar:

Pontos (0 a 10):

**REGISTRO (1 ponto por palavra lembrada na primeira vez)**

\* Dizer três palavras: PENTE RUA AZUL.  
Solicitar ao paciente que preste atenção pois terá que repetir as palavras mais tarde. Peça para repetir as 3 palavras depois de você dizê-las. Se necessário, repita até 5 vezes para aprender as palavras, porém a pontuação é referente a primeira tentativa de repetição.

Pontos (0 a 3):

**EVOCAÇÃO (1 ponto por palavra lembrada)**

\* Perguntar pelas 3 palavras anteriores (Pente, rua, azul). Pontos (0 a 3):

**LINGUAGEM**

\* Mostre um relógio e uma caneta e peça para nomear. (1 ponto por palavra). Pontos (0 a 2):

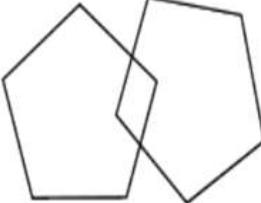
\* Repetir: "Nem aqui, nem ali, nem lá". Pontos (0 a 1):

\* Seguir o comando (falado) de três estágios: "Pegue o papel com a mão direita, dobre ao meio e ponha no chão". Pontos (0 a 3): (1 ponto por comando realizado).

\* Escreva em um papel e peça para a pessoa executar: FECHER OS OLHOS. Pontos (0 a 1):

\* Solicite que o paciente escreva uma frase (um pensamento, ideia completa). Pontos (0 a 1):

**VISUOESPACIAL**

\* Copiar o desenho:  Pontos (0 a 1):

**ATENÇÃO E CÁLCULO**

Peça que o paciente faça subtrações seriadas. Se errar na primeira ou na segunda tentativa, peça para soletrar.

Subtrair: 100-7 ou Soletrar: mundo de trás para frente

(93)  (O)

(86)  (D)

(79)  (N)

(72)  (U)

(65)  (M)

Pontos (0 a 5):

Anos concluídos de educação formal	Pontuação
Analfabetos	< 21
1 a 5 anos de escolaridade	< 24
6 a 11 anos de escolaridade	< 26
12 anos de escolaridade ou mais	< 27

Total MEEM:

Source: TelessaúdeRS / UFRGS (2016)

Annex 2

1. DATE OF BIRTH: \_\_\_\_\_ AGE: \_\_\_\_\_
2. SEX:   
 MALE  FEMALE
3. CIVIL STATE:   
 SINGLE  MARRIED  DIVORCED  HIGH
4. SCHOOL:  SCHOOL  SCHOOL   
 COMPLETE  HIGHER EDUCATION  NOT LITERATED
5. PROFESSION WHEN ADULT: \_\_\_\_\_
6. PROFESSION CURRENTLY: \_\_\_\_\_
7. BARRO:   
 CENTER  COELBA  COURT OF THE  HALF COUNT   
 KITCHEN  MOUNTAIN  POTOS
8. DO YOU USE ANY MEDICINAL PRODUCTS?   
 YES  NO

If you answered NO, your questionnaire ends here. If you answered YES, you can continue the quiz.

- 8.1 THE MEDICINAL PRODUCTS USED WERE ALL THE DOCTOR'S PRESCRIPTION   
 YES  NO

If YES answered, in the previous question, your questionnaire ends here. Se respondeu NÃO, continue por favor na pergunta 9. COM QUAL FREQUÊNCIA VOCÊ RECORRE A AUTOMEDICAÇÃO (USO DE MEDICAMENTO)

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