Use of psychotropic drugs by older adults with hypertension: prevalence and associated factors

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Abstract

Objective: to analyze the factors associated with the use of psychotropic drugs by older adults with hypertension treated in primary care. *Method:* a cross-sectional study was carried out in a city in the northwest of the state of Paraná, Brazil. Data collection was carried out with older adults in the first semester of 2016, using an adapted validated instrument for assessing satisfaction with Primary Health Care services. The logistic regression model was used with the stepwise method and the magnitude of the associations was estimated by calculating Prevalence Ratio (PR). *Results*: 260 older adults with hypertension participated in the study, of which 25.4% were in use of psychotropic drugs, most were aged 60-69 years (48.8%) and female (67.3%). The multivariate analysis showed psychotropic drugs use was more prevalent in participants who used tobacco (PR: 4.09; 95%CI: 1.81–9.18), had abnormal waist circumference (PR: 2.58; 95%CI %: 1.29–5.18), were obese (PR: 2.43; 95%CI: 1.30–4.55) and reported side-effects of drugs used in AH treatment (PR: 2, 98; 95%CI: 1.23-7.21). Regarding the organizational and relational aspects of the family health strategy teams, participants with hypertension and in use of psychotropic drugs had a higher rate of dissatisfaction with the service (PR: 6.71; 95%CI: 1.37–32, 71) and with lack of support and understanding of the problems reported during consultations (PR: 2.17; 95%CI: 1.11–4.25). *Conclusions*: As a public health problem that affects a significant contingent of the elderly population at high risk of health problems, further studies should be conducted in this area. Future studies should seek alternatives to improve the quality of life of elderly with comorbidities and in use of psychotropic drugs through comprehensive care.

Keywords: Elderly. Hypertension. Psychotropics Drugs. Drug Prescriptions. Drug Therappy. . Primary Health Care.

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INTRODUCTION

Overuse of medications is part of Western culture based on the premise that all maladies and any kind of suffering must be remedied at all costs. In the context of this practice, polypharmacy has become one of the most rapid and effective ways of minimizing psychic suffering[1]. According to the World Health Organization (WHO), psychotropic drugs (psycho=mind and tropic=change) are selective modifiers of the Central Nervous System (CNS) which promote changes in behavior, mood and cognition. The use of this class of drugs is essential in the treatment of some mental or psychiatric disorders, such as anxiety, insomnia, depression, agitation, convulsion and pschosis[2].

Thus, the use of psychotropic drugs has grown considerably, particularly in the form of anti-depressants, due to improvements in diagnosing mental disorders, to the availability of new drugs on the market and new treatment indications[3]. More specifically for antidepressants, besides these factors there is the long-term nature of drugs treatment for depression. In the case of older patents, this includes late-life depression induced by the physical and social limitations imposed by ageing[4].

The most widely used psychotropic agents and other classes encompass the following medications: antipsychotic, barbiturates, benzodiazepines, neuroleptic and antidepressants, all of which can trigger serious adverse events, ranging from elevated risk of stroke, increased mortality, development of physical dependence and tolerance in sleep induction, to greater cognitive decline, falls risk and convulsions[3,4].

Older patients are the most likely group to be prescribed benzodiazepines, where this has become a major public health problem[5]. In this respect, a population-based study carried out in the city of Campinas, São Paulo state, found a prevalence of psychotropic drug use of 10.8% in older adults[6]. This rate differed depending on whether the individual was community-dwelling or institutionalized. Studies involving older adults in long-term care institutions found that between 59.7% and 74.6% used these medications, where greatest use was in European countries, predominantly antipsychotics[7,8]. Prevalence among community-dwelling older adults ranged from 9.3% to 37.6%, where benzodiazepines proved the most commonly used psychotropic drug[8]. In a study of a Brazilian elderly population, 21.7% had been in use of benzodiazepines for over 1 year[9].

Given that the incidence of polypharmacy is a factor associated with life expectancy, monitoring of this practice by Family Health Strategy teams has become necessary. Under the prevailing Brazilian mental health policy, Primary Health Care is defined as the gateway, and system responsible, for provision of care to users in psychic distress, and the remit of the teams encompasses the need to devise strategies aimed at the older population, in accordance with these policies[3,4].

Studies on the use of psychoactive drugs and polypharmacy are a field of investigation inherent to pharmacoepidemiology which are vital for promoting rational use of medications. In addition, elucidating the factors associated with the use of psychotropic medications by older adults with arterial hypertension (AH) treated in Primary Care can help inform strategies for prevention and to help promote quality of life of the older population, as well as for avoiding substance dependence and the adverse effects associated with overuse of this class of medication[3-9]. Against this background, the objective of the present study was to analyze the factors associated with psychotropic drugs use by older adults with arterial hypertension treated in primary health care.

METHOD

A cross-sectional study of older adults undergoing treatment for AH in Primary Care was conducted. The city in which the study was carried out is situated in the Northeast of the state of Paraná, Brazil. At the time of data collection, the city had an estimated population of 403,063 inhabitants. The Primary Health Care network is decentralized and comprises 34 Basic Healthcare Units and 74 Family Health Strategy teams, providing health coverage for 68.01% of the population[10].

The criteria for study inclusion were individuals with AH, aged ≥60 years, residing in the urban area of the city, having up-to-date medical records and having been seen by a health care professional of a Basic Healthcare Unit in the 12 months leading up to data collection. Exclusion criteria were not having information on clinical consultations or drugs prescriptions available in medical records.

The sample size was calculated based on number of people registered on the SISHIPERDIA system (program for registration and treatment of individuals with hypertension and Diabetes *Mellitus*) up to 2014, which totaled 27,741 individuals, 62.4% of whom were older adults. This timeframe was used as the basis for the calculation because the data for the year prior to data collection (2015) was still being processed and could have negatively impacted the reliability of the information. Therefore, the proportion of the population was calculated to determine the minimum sample size of the sample, adopting an estimated error rate of 5% and confidence interval of 90%. Given the population size was known and finite, the minimum representative sample was established as 252 older adults. This sample was subsequently randomized and stratified according to number of patients seen by each Basic Healthcare Unit in the city, giving a final sample of 260 older individuals.

Initial contact was made with the managers, physicians and nurses of the respective Basic Health Unit and then with the patients, after which the study was presented and invitations extended for participation. Data collection was carried out in the first half of 2016 by 3 nurses who were students on the Post-graduate Program of a public university in the city. For this stage, previous training on the study aims, interview techniques and on measuring clinical and anthropometric parameters of interviewees was given to the nurses. All interviews were individual and conducted in comfortable rooms, free of interference.

Two instruments were employed for data collection. The first instrument was adapted and validated by Paes[11], based on the Primary Care Assessment Tool (PCATool), and collected data on AH patients´ perceptions of the services provided by the Primary Care system. For the present study, the variables contained in the block of questions on sociodemographic and economic profile were used, in which educational level was established according to number of full years of formal study, and race/color was self-reported by participants. Respondents were questioned about medications use (divided according to which therapeutic group they belonged to) and about the health professional-patient relationship.

The second instrument collected data on participants´ socioeconomic profile, as per guidelines of the Brazilian Association of Research Companies (ABEP). For the present study, socioeconomic status was categorized into classes AB, C and DE[12]. Adequate follow-up was defined as when the patient attended pre-scheduled routine consultations at least 3 times a year, for the year prior to that of data collection[13].

After conducting of interviews, information was collected from study participants´ electronic medical records. Data on medications in use were drawn from the prescriptions tab of the electronic medical record and then transcribed to the data collection instrument. Medications were classified according to their main active substance, identified with the aid of the *Dicionário de Especialidades Farmacêuticas* (DEF), and subsequently grouped according to the rules of the Anatomical Therapeutic Chemical Classification System (ATC)[14]. Thus, the following classes were considered psychotropic: benzodiazepines, antidepressants, selective serotonin reuptake inhibitors, tricyclic agents and other anti-depressants. Antipsychotics were not included in the current analysis.

Anthropometric and clinical parameters were measured during the interviews using duly calibrated devices, observing the guidelines on techniques and procedures for taking measurements. Blood pressure values were determined based on the procedures outlined in the 7th Brazilian Guideline on Arterial Hypertension by the Brazilian Society of Cardiology (SBC)[15]. Adequate Blood Pressure Control was defined as Systolic Arterial Pressure (SAP) ≤140 mmHg and Diastolic Blood Pressure (DBP) ≤90mmHg[15].

Anthropometric parameters were collected in accordance with the rules of the Brazilian Association for the Study of Obesity and Metabolic Syndrome (ABESO)[16] and with recommendations from the

Handbook for Older Adults produced by the Ministry of Health[17]. A non-elastic tape was used for measuring waist circumference (WC), where values of ≥94 centimeters for males and ≥80 for females were deemed abnormal[16].

Weight and height measurements were taken using a duly calibrated anthropometric balance with stadiometer attached. Based on the anthropometry results, Body Mass Index (BMI) was calculated and classified as follows: normal weight <22 kg/m², adequate weight ≥22 and ≤27 kg/m² and excess weight > 27 kg/m² [16,17].

The result of the calculation of weight/height ratio (WHR) was coded according to a study on the diagnosis of excess weight in older adults using WHR as a marker, where values ≥0.56 were taken to indicate overweight[18]. The conicity index (CI) was determined using the equation of Pitanga and Lessa (Figure 1), with cut-off points for abnormality defined as CI >1.25 for men and CI >1.18 for women[19].

$$CI = \frac{\text{Waist circumference (m)}}{0.109\sqrt{\frac{\text{Body weight (kg)}}{\text{Height (m)}}}}$$

Figure 1. Mathematic equation for calculating conicity index (CI). Paraná, Brazil, 2016.

Legend: CI: conicity index; m: meters; kg: Kilos.

The dependent variable was the use of at least 1 psychotropic drug, confirmed by analyzing study participants´ medical records. Explanatory independent variables were split into the following blocks: economic and sociodemographic profile; clinical, anthropometric and life-habits profile; variables measuring organizational and relational aspects of the care provided by health professionals from the Primary Healthcare teams to the target population of the study, categorized based on a composite index of the questions for the blocks cited, resulting from the analysis of non-hierarchical clustering by repartitioning.

All questionnaires were checked, tabulated and then analyzed using the statistical software Statistical Package for Social Sciences (SPSS), version 20.0. A logistic regression model with the stepwise method was applied, incorporating all variables with a p-value <0.20 in the univariate analysis, while only retaining variables with a p-value <0.05 in the multivariate model. The magnitude of associations was estimated by calculating Prevalence Ratio (PR), adopting a 95% confidence interval as the measure of precision.

The ethical principles set forth by Resolution 66/12 of the National Board of Health were duly observed, and the study was approved by the Research Ethics Committee of the signatory institution (Permit no. 1.407.687/2016). All participants signed a Free and Informed Consent Form.

RESULTS

A total of 360 patients with AH were interviewed. Overall, 48.8% were aged 60-69 years, 67.3% female, 64.6% self-reported as white, 56.5% lived with a partner or children, and 62.7% had low educational level. Regarding economic aspects, most participants were retired and/or pensioners (74.2%) and predominantly classified into socioeconomic strata C based on purchasing power of the head of the family (40.8%) (Table 1).

Of the 260 participants, 66 (25.4%) were in use of psychotropic drugs, predominantly clonazepam (23.9%) in the benzodiazepine group and amitriptyline (22.8%) in the tricyclic class of antidepressants. The main selective serotonin reuptake inhibitor was fluoxetine (21.7%), while other atypical antidepressants, such as bupropion, were also identified in the analysis (2.2%) (Table 2).

Table 1. Sociodemographic and economic profile of older adults with hypertension treated in Primary Care (N=260). Paraná, Brazil, 2016.

Variables	n (%)
Age	
60 – 69	127(48.8)
70 – 79	96(36.9)
80 – 89	35(13.5)
>90	2(0.8)
Sex	
Male	85(32.7)
Female	175(67.3)
Race/Color	
White	168(64.6)
Black	38(14.6)
Brown	54(20.8)
Family Situation	
Living with partner and children	147(56.5)
Living with family members, without partner	62(23.8)
Living alone	51(19.6)
Educational level	
Illiterate	25(9.6)
Primary education	163(62.7)
Secondary education	61(23.5)
Higher education	11(4.2)
Occupation	
Not retired	67(25.8)
Retired/Pensioner	193(74.2)
ABEP - Associação Brasileira de Empresas de Pesquisa	
AB – High purchasing power	95(36.5)
C – Medium purchasing power	106(40.8)
DE – Low purchasing power	59(22.7)

Table 2. Class of psychotropic drugs used by older adults with hypertension treated in Primary Care (N=66). Paraná, Brazil, 2016.

Variables	ATC Code	N (%)*
Benzodiazepines	N05BA	
Clonazepam	N03AE01	22 (33.3)
Bromazepam	N05BA08	8 (12.1)
Diazepam	N05BA01	2 (3.1)
Antidepressants	N06A/N06AX/N06AB	
Amitriptyline	N06AA09	21 (31.8)
Imipramine	N06AA02	3 (4.5)
Clomipramine	N06AA04	2 (3.1)
Bupropion	N06AX12	2 (3.1)

to be continued

Continuation of Table 2

Variables	ATC Code	N (%)*
Mirtazapine	N06AX11	1 (1.5)
Venlafaxine	N06AX16	1 (1.5)
Fluoxetine	N06AB03	20 (30.3)
Paroxetine	N06AB05	5 (5.4)
Sertraline	N06AB06	3 (4.5)
Citalopram	N06AB04	2 (3.1)

ATC: Anatomical Therapeutic Chemical Classification System; *Participants were in use of more than one type of medication, value of n not calculated.

Table 3 shows that older adults aged 80-89 years had a lower rate of psychotropic drug use (PR: 0.32; 95%CI: 0.10–0.99). Also regarding demographics, the analysis revealed that patients who were female (PR: 2.14; 95%CI: 1.11–4.14), living with family members without partner (PR: 0.57; 95%CI: 0.27–1.21) and categorized as Class C (PR: 1.85; 95%CI 0.95–3.57) had a higher rate of psychotropic drug use. With regard to life-habits, a higher prevalence of medication use was evident in users of tobacco (PR: 3.12; 95%CI: 1.48–6.57); alcohol (PR: 3.03; 95%CI: 0.59–15.4) and among individuals who did not engage in regular physical exercise (PR: 1.79; 95%CI: 0.91–3.49). Concerning clinical profile, the rate of psychotropic drug use was significantly higher among patients that practiced polypharmacy (PR: 0.66; 95%CI: 0.36–120), who reported adverse drug effects (PR: 2.03; 95%CI: 0.91-4.49) and among subjects classified as obese (OR: 2.05; 95%CI: 1.06–3.97).

Table 3. Univariate analysis of factors associated with psychotropic drugs use in older adults with hypertension treated in Primary Care (n = 260). Paraná, Brazil, 2016.

Independent Variables	Psychotropic drug Use		Univariate Analysis		
	Yes (n=66) n (%)	No (n=194) n (%)	OR	95%CI	*p*
Sociodemographic and economic profile					
Age (years)					
60 - 69	36(54.5)	91(46.9)	1		
70 - 79	26(36.4)	70(36.1)	0.93	00.51 - 1.69	0.835
80 - 89	4(6.1)	31(16)	0.32	0.10 - 0.99	0.048*
>90	- (-)	2(1)	-	-	-
Sex					
Male	14(21.2)	71(36.6)	1		
Female	52(78.2)	123(63.4)	2.14	1.11 - 4.14	0.023*
Race/Color					
White	40(60.6)	128(66)	1		
Brown	16(24.2)	38(19.6)	1.14	0.51 – 2.55	0.745
Black	10(15.2)	28(14.4)	1.34	0.68 - 2.66	0.393
Educational level					
Illiterate	4(6.1)	21(10.8)	1		
Primary education	46(69.7)	117(60.3)	2.06	0.67 - 6.34	0.206
Secondary education	14(21.2)	47(24.2)	1.56	0.46 - 5.32	0.474
Higher education	2(3)	9(4.6)	1.16	0.18 - 7.55	0.872

to be continued

Continuation of Table 3

Independent Variables	Psychotropic drug Use		Univariate Analysis		
	Yes (n=66) n (%)	No (n=194) n (%)	OR	95%CI	*p*
Family situation					
Living with partner and children	40(60.6)	107(55.2)	1		
Living with family members, without partner	11(16.7)	51(26.3)	0.57	0.27 - 1.21	0.148*
Living alone	15(22.7)	36(18.6)	1.11	0.55 - 2.25	0.762
Occupation					
Retired	55(83.3)	161(83)	1		
Not retired	11(16.7)	33(17)	1.02	0.48 - 2.16	0.949
ABEP: Associação brasileira de empresas de pesquisa					
AB: high purchasing power	18(27.3)	77(39.7)	1		
C: medium purchasing power	32(48.5)	74(38.1)	1.85	0.95 - 3.57	0.068*
DE: low purchasing power	16(24.2)	43(22.2)	1.59	0.73 - 3.43	0.237
Clinical profile, drugs and life-habits					
Blood pressure control					
Adequate	34(51.5)	95(49)	1		
Inadequate	32(48.5)	99(51)	0.9	0.51 - 1.57	0.721
AH-related sequelae					
No	54(81.8)	171(88.1)	1		
Yes	12(18.2)	23(11.9)	1.65	0.77 - 3.54	0.197*
Tobacco use					
No	50(75.8)	176(90.7)	1		
Yes	16(24.2)	18(9.3)	3.12	1.48 - 6.57	0.003*
Alcohol use					
No	63(95.5)	191(98.5)	1		
Yes	3(4.5)	3(1.5)	3.03	0.59 - 15.4	0.181*
Level of engagement in physical activity					
Active	16(24.2)	58(29.9)	1		
Sedentary	41(62.1)	83(42.8)	1.79	0.91 - 3.49	0.087*
Moderately active	9(13.6)	53(27.3)	0.61	0.25 - 1.51	0.289
Polypharmacy					
No	45(68.2)	114(58.8)	1		
Yes	21(31.8)	80(41.2)	0.66	0.36 - 1.20	0.177*
Adverse effects of hypertensive medication					
No	46(69.7)	148(76.3)	1		
Yes	12(18.2)	19(9.8)	2.03	0.91 - 4.49	0.080*
Sometimes	8(12.1)	27(13.9)	0.95	0.40 - 2.24	0.913
Anthropometry					
Classification of Body Mass Index					
Normal	16(24.2)	46(23.7)	1		
Overweight	31(47)	65(33.5)	1.37	0.67 - 2.79	0.385
Obesity	19(28.8)	83(42.8)	2.05	1.06 - 3.97	0.031*

to be continued

Continuation of Table 3

Independent Variables	Psychotropic drug Use		Univariate Analysis		
	Yes (n=66) n (%)	No (n=194) n (%)	OR	95%CI	*p*
Waist Circumference					
Normal	15(22.7)	74(38.1)	1		
Abnormal	51(77.3)	120(61.9)	2.09	1.10 - 3.99	0.024*
Waist-Height Ratio					
Normal	9(13.6)	32(16.5)	1		
Abnormal	55(83.4)	162(83.5)	1.2	0.54 – 2.68	0.645
Conicity Index					
Normal	6(9.1)	13(6.7)	1		
Abnormal	60(90.9)	181(93.3)	0.71	0.26 – 1.97	0.521

OR: Odds ratio; CI: confidence interval; *Variables with p-value p<0.20 were incorporated into multivariate step, as per Stepwise logistic regression model.

Regarding clinical and anthropometric profile, the multivariate analysis revealed that participants who self-reported daily use of tobacco (PR: 4.09; 95%CI: 1.81–9.18), had abnormal WC (PR: 2.58; 95%CI: 1.29–5.18), were classified as obese (PR: 2.43; 95%CI: 1.30–4.55) and reported experiencing side-effects of medication used for treating AH (OR: 2,98; 95%CI: 1.23–7.21), had a higher rate of psychotropic drug use (Table 4). Concerning organizational and relational aspects of Primary Care teams, it was found that patients dissatisfied with the care provided (PR: 6,71; 95%CI: 1.37–32.71) who reported not feeling well-supported or understood by the health professionals for problems during consultations (PR: 2.17; 95%CI: 1.11–4.25), had a higher rate of psychotropic drug use, after adjusting by the ABEP demographic class variable (Table 4).

Table 4. Multivariate analysis of factors associated with psychotropic drugs use in older adults with hypertension treated in Primary Care (n = 260). Paraná, Brazil, 2016.

Variables	Psychotropic drug use		Multivariate Analysis		
	Yes (n=66) n (%)	No (n=194) n (%)	OR	95%CI	*p*
Smoker					
No	50(75.8)	176(90.7)	1		
Yes	16(24.2)	18(9.3)	4.09	1.81 – 9.18	**0.001**
Waist Circumference					
Normal	15(22.7)	74(38.1)	1		
Abnormal	51(77.3)	76(61.9)	2.58	1.29 – 5.18	**0.005**
Obese					
No	28(42.4)	118(60.8)	1		
Yes	38(57.6)	76(39.2)	2.43	1.30 - 4.55	**0.007**
Adverse effects of hypertensive medication					
No	46(69.7)	148(76.3)	1		
Yes	12(18.2)	19(9.8)	2.98	1.23 - 7.21	**0.015**
Sometimes	8(12.1)	27(13.9)	1.29	0.51 - 3.27	0.589

to be continued

Continuation of Table 4

Variables	Psychotropic drug use		Multivariate Analysis		
	Yes (n=66) n (%)	No (n=194) n (%)	OR	95%CI	*p*
ABEP: Associação brasileira de empresas de pesquisa					
AB: high purchasing power	18(27.3)	77(39.7)	1		
C: medium purchasing power	32(48.5)	74(38.1)	1.94	0.93 – 4.05	0.074
DE: low purchasing power	16(24.2)	43(22.2)	1.71	0.73 - 4.00	0.212

OR: Odds ratio; CI: Confidence interval; *Explanatory variables adjusted by ABEP variable.

DISCUSSION

The increase in life expectancy of the population has been accompanied by a rise in demand from older persons for health services in general, particularly Primary Care. The predominance of female participants in the present study can be justified by the greater attention paid to health by women and their aptitude for describing physical and psychological problems, a factor associated with a higher likelihood of receiving and adhering to medical prescriptions. Women are also considered to be more affected by non-fatal health problems and the group living longest with chronic diseases[20,21].

In the city of Campinas, São Paulo state, a study in primary care found greater use of psychotropics by women, individuals who were white, had poorer self-perceived health, common mental health disorders and emotional problems[6]. Another study, performed in Curitiba, the capital city of Paraná state, found that individuals that were female, lived with a partner, with low educational level and no formal occupation (housewives) had the highest rate of psychotropic drugs use[22].

With regard to the low educational level of the study participants, this result is consistent with findings associating educational level with knowledge on health and health services[20-22]. Consequently, low-educated older adults encounter greater difficulty with respect to self-care and self-perception of health needs, reducing their autonomy in seeking medical care and treatment[20-22].

Regarding economic aspects, most of the participants were classified into socioeconomic strata C, indicating low purchasing power of the head of the family. Psychic illness or predominant use of psychotropic medication in classes with a lower socio-economic level is justified in the literature by their social vulnerability, characterized by limited access to health services, leisure, poor diet, low income, basic sanitation, and low level of education and physical exercise, all of which favor the development and exacerbation of chronic diseases, and hospitalization[9,20,21].

A study of older adults in use of psychoactive drugs prescribed by national health system (SUS) professionals or physicians under private health plans was carried out. The results showed that the drugs most commonly taken by SUS users were those of lower cost which invariably caused more collateral effects, whereas the medications prescribed under the private system had lower risk of undesirable side effects. Although no significant difference was found between the number of psychoactive drugs used under the two systems, the evidence points to a lack of access to the latest drugs with fewer adverse effects among SUS users[23].

The most used psychotropic drugs by the participants of the present study were benzodiazepines, tricyclic antidepressants, selective serotonin reuptake inhibitor and other antidepressants. These results corroborate previous studies confirming prevalent use of fluoxetine[6], clonazepam, amitriptyline, fluoxetine and bupropion by the elderly population[3,4,24]. It is important to highlight that the use of bupropion in the present study might be related to its inclusion

as a drug prescribed to help give up smoking in the Clinical Protocol and Therapeutic Guidelines – Nicotine Dependence, and its use as a first-line treatment for nicotine dependence in Brazil[25].

Prescribing patterns to SUS users tend to be influenced by the list of free medications available[24,25]. A study conducted in a city situated in the Oeste Paulista region showed that SUS users made greater use of the same drugs described in the present study[26] and also contained in the National List of Essential Medications (RENAME), which forms the basis of procurement of medications provided under the SUS and dispensed by Primary Healthcare teams[27].

In this study, the rate of polypharmacy detected in the population assessed was 25%. This high rate was attributed, in a study of elderly people in Primary Health care in Belo Horizonte, to population aging and the rising trend in medications use. Thus, actions to ensure adequate pharmacotherapy for older people should be made a priority. Combined measures encompassing review strategies of drugs therapy, a computerized prescription and dispensing support system, continued education for health teams and specialized services in geriatrics are key to guaranteeing adequate prescriptions[28].

To this end, primary care professionals have the role of running actions for health prevention, promotion and education, including actions targeting users in use of psychotropic medications. Activities providing health guidance should be prioritized, particularly with regard to the potential adverse effects of concomitant use of psychoactive agents with other drug classes, aimed at preventing misuse and promoting rational use[13,23].

Some researchers report that, although the prevalence of psychotropic drugs use in the older population is high, some patients respond well to pharmacological monotherapy with milder, less harmful drugs which could be used in association with non-pharmacological therapies, especially in primary care via Family Health Strategy teams. However, care should be taken using this approach with regards to drug-drug interactions, because older patients are prone to polypharmacy, increasing their risk of falls and fractures due to the level of sedation, in addition to cognitive and memory losses[3-5].

The results of the multivariate analysis revealed an association of psychotropic drugs use with smoking, excess weight, abnormal WC, obesity and reported adverse effects of antihypertensive drugs. A study analyzing quality of life of in elderly people treated by Primary Care in Acre found an association between low perceived quality of life and clinically-diagnosed multi-morbidities and depression. Therefore, developing effective care that attenuates the impact of old age on quality of life represents a challenge for primary care professionals[29].

Regarding the treatments available for excess weight, ansiolytic and antidepressant classes of drugs were found. One of the key practices for managing chronic disease employed in Primary Care is aimed at controlling obesity, whose recommendations include encouraging changes in life style, commencing with engagement in physical activity, food reeducation, giving up smoking, among others[30]. In addition, scientific evidence shows a bi-directional association between excess weight and a number of psychiatric disorders, whereby the chance of an individual with excess weight developing depression is similar to that of a subject with depression becoming obese[31].

Therefore, follow-up of older individuals should take into account the multi-factorial nature and complexity of diseases during this stage of life, considering differences in perceptions of this population in relation to excess weight, with an emphasis on emotional frailties in multimorbidity, changes in perception regarding aging and health, and appreciation of functioning[30,31,32].

Smoking is also a factor potentially associated with greater risk of developing mental disorders, including depression. In the literature, the causality between smoking and depression has been attributed to different mechanisms, primarily the action of nicotine on neurochemical systems and also on neuroendocrine functions. Reverse causality may also play a role, where an individual with depression may start, and continue to use, tobacco-based products, possibly explained by an absence of behaviors for preserving health and/or by a heightened sensation of pleasure when smoking[33].

Running health education activities aimed at older people that involve the family constitutes a vital

tool for health professionals to highlight the harm that chronic smoking and alcohol use can cause. It should be emphasized that this older group is prone to aging-related health problems, increasing their susceptibility to chronic diseases. With combined use of both nicotine and alcohol, these individuals become more prone to hospital admissions and exacerbation of diseases[34].

Moreover, the health professional-user relationship can influence the way psychoactive drugs are used, where this connection is pivotal for monitoring the patient. A study of octogenarians assessing primary health services reported dissatisfaction over waiting times and clinic infrastructure. However, users expressed satisfaction with the service provided by the Community Health Workers for the attention and explanations given, the interest shown in their problems, and for their availability[35].

The benefits of professional advice for patients with AH were demonstrated by a study in which users´ blood pressure levels were reduced during the period of self-care management. With regard to psychotropic drugs use, although there was no statistically significant association with inadequate blood pressure control, it should be noted that half of the interviewees with hypertension were users of psychotropic drugs.

A study carried out in the south of Brazil found a strong association of non-adherence and poor relationship with the Primary Care team with inadequate blood pressure control and non-attendance at routine consultations scheduled under the hypertension program. Nonetheless, the evidence points to the need for reorganizing health actions and interventions to center on the need for professionals to deliver comprehensive interdisciplinary treatment, as opposed to focusing solely on symptoms and/or complication arising from uncontrolled blood pressure, in an effort to foster greater engagement of hypertension patients in routine visits and better adherence to drugs therapy[13].

The present study has some limitations, such as the methodological approach involving reverse causality bias, which may have led to the loss of important data for elucidating the topic. However, the study adds to the knowledge on service delivered to older users, encouraging health professionals to become aware of the factors associated with psychotropic drugs use by older patients with comorbidities in order to improve the service delivered to this population.

CONCLUSION

The results of the present study showed that 25% of the population assessed was in use of psychotropic drugs, with antidepressant and anxiolytic classes proving the most common. The most used drugs were benzodiazepines, tricyclic antidepressants, selective serotonin reuptake inhibitor and other antidepressants. The factors associated with psychotropic drugs use in older adults with arterial hypertension seen in Primary Care were daily tobacco use, sedentarism, obesity, abnormal waist circumference, and self-reported side effects of anti-hypertensive drugs.

Given this is a public health problem which affects a large contingent of the older population at high risk of health issues, further studies should be conducted in this area. Future studies should seek alternatives to improve the quality of life of older persons with comorbidities and in use of psychotropic drugs through universal comprehensive care, serving to reduce inequalities in the care delivered to the elderly population living with chronic diseases.

The unhealthy life habits identified as prevalent factors associated with the use of psychotropic medications are modifiable, and thus amenable to different intervention approaches devised by health professionals of the multiprofessional teams of primary care units. The organization of the work process hinges on knowledge of the population and on educational and informational actions promoting the adoption of new habits regarding diet and physical activity in an effort to reduce polypharmacy. Therefore, the results of this study can guide the health service in the provision of higher quality more effective care for the health problems diagnosed in the population.

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