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# **RESEARCH ARTICLE**

## LATE ACCESS FOR ORTHOPEDIC APPOINTMENTS IN THE BRAZILIAN NATIONAL HEALTH SYSTEM: TYPES OF PAIN AND USE OF MEDICINES

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ARTICLE INFO	ABSTRACT
<i>Article History:</i> Received 20 <sup>th</sup> March, 2020 Received in revised form 19 <sup>h</sup> April, 2020 Accepted 17 <sup>th</sup> May, 2020 Published online 30 <sup>th</sup> June, 2020	Cross-sectional study conducted on patients of the Brazilian National Health System ( <i>Sistema Único de Saúde</i> – SUS) who make use of the <i>Consórcio Público Intermunicipal de Saúde do Setentrião Paranaense</i> – CISAMUSEP <sup>5</sup> , for specialized medical appointment in orthopedics. Its aim is to estimate the prevalence of medication use and its association with sociodemographic factors, lifestyles and pain scales. An instrument was deployed in three parts: 1. Socio-epidemiological and demographic data (age, gender, weight, education level and family income) and analysis of NSAIDs
<i>Key Words:</i> Medicines, <i>Sistema Único de Saúde</i> , Rational use, health demand.	(medicines and their pharmaceutical form used, time of use, frequency, place of obtaining); 2. Validated pain assessment – McGill Pain Questionnaire (Portuguese version); 3. Nordic musculoskeletal questionnaire. 86 SUS patients served by CISAMUSEP's orthopedics were evaluated The outcome was 53 5% female patients and 46 5% male patients. The majority 48 8%

evaluated. The outcome was 53.5% female patients and 46.5% male patients. The majority, 48.8%, were between 30 and 60 years old. The prevailing time of schooling was 9 to 12 years (40.7%). Regarding the referred income and converted into minimum wages in effect in May 2015, 47.7% of the patients received one salary. In the correlation between the gender of the interviewees and the variables, a statistically significant association among gender and type of medicine purchased, type of pain, Current Pain Index (CPI), accompanying symptoms, sleep, activities and food intake was made evident. The patients are not the same in representing their problems and necessities.

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# **INTRODUCTION**

Pain monitoring has a high degree of importance, so much so that the Joint Commission on Accreditation of Healthcare Organization (JCAHO), a North American hospital assessment entity, has included its relief as an item to be evaluated in hospital accreditation, as of 2001. That decision reinforced the patient's right to have his pain adequately measured, recorded and controlled, establishing management standards in outpatient and home care, as well as mental health care, rehabilitation and hospital institutions (Keller et al., 2013). Pain is a public health problem, due to its high prevalence, economic impact and functional impairment.

It is defined as an unpleasant sensory and emotional experience, related to actual or potential tissue damage. Usually, when chronic, it is associated with suffering, discomfort, anxiety, frustration, anger, changes in mood and social isolation, which may progress to depression. Pain complaints are described in literature as one of the main causes of physical disability, in addition to being related to sleep disorders, impaired functional capacity and daily life activities, consequently compromising quality of life (SILVA et al., 2011). The intake of anti-inflammatory drugs in Brazil has increased considerably over the last few years, and in 2010 alone 1.5 billion Brazilian reals were spent on the purchase of this type of medicine. Non-steroidal anti-inflammatory drugs (NSAIDs) are a varied group of drugs that have the analgesic and anti-inflammatory properties in common. In Brazil, specific studies on the use of these drugs, as well as on factors

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	Gender						
Variables		lale %		nale %		otal %	р
Use of medicine for pain	n	70	n	70	n	70	
No	9	10.5	4	4.7	13	15.1	0.0746
Yes	31	36.0	42	48.8	73	84.9	0.0710
Acquisition of the medicine	51	50.0	72	40.0	15	04.9	
Do not take medicine	9	10.5	4	4.7	13	15.1	
Purchase at drugstore	27	31.4	15	17.4	42	48.8	
Community health center	0	0.0	17	19.8	17	19.8	0.0007*
Community health center or buy at drugstore	0	0.0	2	2.3	2	2.3	0.0007
Receive from third-parties	0	0.0	2	2.3	2	2.3	
Receive from third-parties or buy at drugstore	4	4.7	6	7.0	10	11.6	
Type of pain	-	4.7	0	7.0	10	11.0	
Tug	3	3.5	12	14.0	15	17.4	
Acute	0	0.0	5	5.8	5	5.8	
Stabbing	12	0.0 14.0	3 9	5.8 10.5	21	3.8 24.4	
Punishing	6	7.0	5	5.8	11	12.8	0.0047*
Stinging	3	3.5	6	5.8 7.0	9	12.8	0.0047*
Stinging and stabbing	3 0	3.5 0.0	6 3	7.0 3.5	3	3.5	
Tightness	5	0.0 5.8	3 2	3.5 2.3	3 7	3.5 8.1	
Discomfort	2	2.3	0	2.3 0.0	2	2.3	
	20		2	2.3	2	2.3	
Punishing and tightness	4	0.0	2		4		
Hot		4.7		0.0		4.7	
Mild	3	3.5	0	0.0	3 4	3.5	
Pinching	2	2.3	2	2.3	4	4.7	
Current Pain Index (CPI)	-	0.1	12	15.1	20	22.2	
Excruciating	7	8.1	13	15.1	20	23.3	
Agonizing	5	5.8	10	11.6	15	17.4	0.01.40*
Discomforting	15	17.4	8	9.3	23	26.7	0.0140*
Horrible	2	2.3	10	11.6	12	14.0	
Slight	5	5.8	4	4.7	9	10.5	
Painless	6	7.0	1	1.2	7	8.1	
Accompanying symptoms		10.6	•				
No symptoms	16	18.6	20	23.3	36	41.9	
Headache	3	3.5	16	18.6	19	22.1	
Headache and dizziness	0	0.0	4	4.7	4	4.7	0.0000
Nausea	9	10.5	3	3.5	12	14.0	0.0002*
Cold	8	9.3	0	0.0	8	9.3	
Dizziness	0	0.0	3	3.5	3	3.5	
Sleepiness	4	4.7	0	0.0	4	4.7	
Sleep			_				
Good	23	26.7	7	8.1	30	34.9	
Insomnia	7	8.1	20	23.3	27	31.4	0.0002*
Disrupted	10	11.6	19	22.1	29	33.7	
Physical activities							
Good	19	22.1	9	10.5	28	32.6	- · ·
Little	12	14.0	13	15.1	25	29.1	0.0045*
None	5	5.8	5	5.8	10	11.6	
Some	4	4.7	19	22.1	23	26.7	
Food intake							
Good	34	39.5	25	29.1	59	68.6	
Little	3	3.5	11	12.8	14	16.3	0.0001*
Some	0	0.0	10	11.6	10	11.6	
None	3	3.5	0	0.0	3	3.5	

#### Table 1. Gender distribution according to some variables evaluated by CISAMUSEP patients, Maringá – Paraná, 2015.

related to their use, are rare or nonexistent, although knowledge about these issues is essential for the adequate therapeutic use of this class (SILVA et al., 2013). The SUS patient who awaits orthopedic care reports pain caused by the inflammatory reaction at the injury site. The absence of an accurate and punctual diagnosis and adequate treatment lead them to use NSAIDs. Considering that they are using the medicines without proper guidance, it is assumed that their use is occurring incorrectly. The indiscriminate consumption of NSAIDs is a worrying phenomenon, for according to the Toxic-Pharmacological National Information System. medicines, since 1999, are the main cause of intoxication and deaths registered in Brazil, and NSAIDs are in the composition of most drugs that cause intoxication. Thus, the indiscriminate use of NSAIDs can be a serious public health problem. The high prevalence of NSAID intake, as well as its high consumption rate by self-medication revealed a worrying reality, since the frequent use of this class of drugs increases the population's exposure to the eminent risks arising from the irrational/indiscriminate use of this pharmaceutical class. The data obtained from this study may contribute to improving the quality of life of patients who need an appointment with an orthopedic specialist through information about alternative ways to relieve pain and other symptoms of the disease, contributing to the rational use of medicines and as little as possible. The aim of this study was to identify the use of medicines and their association with socio-demographic factors and reports of pain from patients of the Brazilian National Health System (Sistema Único de Saúde) with late access for medical appointment with orthopedics served by ConsórcioPúblico Intermunicipal de Saúde do SetentriãoParanaense-CISAMUSEP<sup>5</sup>.

## **MATERIALS AND METHODS**

Cross-sectional study developed with Sistema Único de Saúde (SUS) patients assisted by the orthopedics section in February, June and July 2015. As inclusion criteria, the interviewee had to be a SUS patient and have orthopedics appointments, both genders. People not able to understand the questions asked or those who refused to sign the Informed Consent Form (ICF) were excluded. In the field research, a research instrument was used in three parts: 1. Socio-epidemiological and demographic data (age, gender, weight, education level and family income) and analysis of the prescription of NSAIDs (drugs and their pharmaceutical form used, time of use, frequency, place of obtaining); 2. Validated pain assessment (McGill Pain Questionnaire - Portuguese version); 3. Nordic questionnaire of musculoskeletal symptoms. The data obtained were entered into a Microsoft Excel 2010 spreadsheet and statistically analyzed with the aid of Statistica 8.0 software. For qualitative variables, frequency table and graphic charts with percentages, as well as Fisher's Exact Test were used. The level of significance adopted in the test was 5%, that is, associations with p<0.05 were considered significant. The project was submitted for ethical appraisal to the Research Ethics Committee of UniCesumar University (CEP CESUMAR) and approved according to certificate No. 974.004 issued on 12/18/2014.

## **RESULTS AND DISCUSSION**

Eighty-six SUS patients receiving medical orthopedics care at CISAMUSEP were evaluated. Most patients, 53.5% (n = 46),

were female and 46.5% (n = 40) were male. Out of these, 48.8% (n = 42) were between 30 and 60 years old, 27.9% (n = 24) were between 18 and 29 years old and 23.3% (n = 20) were over 60 years old. Time of schooling was characterized by 40.7% (n = 35) from 1 to 4 years and 20.9% (n = 18) more than 12 years. Regarding the referred income and converted into minimum wages in effect in May 2015, 47.7% (n = 41) received one salary, 43.0% (n = 37) one to three salaries and 9.3% (n = 8) more than three salaries. In the correlation between the interviewees' gender and the variables, a statistically significant association was evidenced between gender and type of medication acquisition (p = 0.0007), type of pain (p = 0.0047), Current Pain Index – CPI (p = 0.0140), accompanying symptoms (p = 0.0002), sleep (p = 0.0001), physical activities (p = 0.0045) and food intake (p = 0.0001), as shown in Table 1. Pain was reported more frequently among women. Equivalent results were obtained by Dellarozza (2013). The same author states that pain is a frequent reason for seeking health services in people of all ages and in different places around the world; and individuals with chronic pain use the services more often when compared to other patients. It was observed that the type of pain reported prevailed reports of uncomfortable pain (17.4%). Among men, reports were of excruciating pain (15.1%) followed by agonizing or horrible (11.6% for each).

### Conclusion

Secondary care plays an essential role in solvability and integrity of treating orthopedic pain, expanding access to specialized appointments and procedures, mapping out the points of the health care network that have traditionally been distant. Although all patients have expectations regarding the use of health services (late access, availability of specialized care), they are not the same in the way they represent their problems and necessities (pain and its interference in daily activities and sleep). Therefore, the investments in secondary care maximize the solvability of primary care. On the other hand, the low solvability of primary care boosts demand for secondary care (ERDMANN et al., 2013).

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