ORIGINAL ARTICLE

Socio-demographic and clinical profile of a cohort of patients referred to a Pain Clinic*

Perfil sócio-demográfico e clínico de uma coorte de pacientes encaminhados a uma Clínica de Dor

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SUMMARY

BACKGROUND AND OBJECTIVES: There is little information in Brazil about the profile of Pain Clinic users and the impact of this demand on health services.

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This study aimed at identifying the profile of patients referred to a Pain Clinic using socio-demographic and clínical variables obtained by speciflc screening, correlating such variables to pain duration and intensity.
METHOD: This is a cohort descriptive, transversal and exploratory study with 128 individuals seen by an outpatient setting specialized in pain management. Independent variables included age, gender, marital status, labor status, education, religiousness, ethnicity, clinic referring patients, original diagnosis, Pain Clinic diagnosis, pain duration and type. Evaluation tools were an electronic card and the physical evaluation performed by a pain specialist. Data were collected at flrst visit before the interaction with any health care provider.
RESULTS: Pain was more prevalent among females (58.5%), married (66.4%), inactive (62.5%) and in those with mean school attendance of 6.8 ± 3.5 years. Most have religious beliefs (93.7%). Mean pain duration was 32.6 ± 21.9 months. There has been positive correlation between pain intensity and longer duration among females and educational level lower than 5 years. ($p < 0.05$).
CONCLUSION: Chronic pain patients previously under the care of a different specialty and referred to a Pain Clinic supply data which may contribute to control pain with more effective therapeutic approaches, by the interaction of the knowledge of different professionals.
Keywords: Chronic pain, Pain measurement, Pain treatment.

RESUMO

JUSTIFICATIVA E OBJETIVOS: No Brasil há pouca informação do perfll dos usuários de Clínica de Dor e o impacto que esta demanda tem sobre a utilização dos

serviços de saúde. O objetivo deste estudo foi identificar o perfil dos pacientes encaminhados a uma Clínica de Dor por meio de variáveis sócio-demográficas e clínicas obtidas em triagem específica, correlacionando estas variáveis ao tempo e intensidade da dor.
MÉTODO: Estudo descritivo, exploratório de *coorte* transversal no qual foram incluídos 128 indivíduos, atendidos em ambulatório especializado no tratamento da dor. As variáveis independentes incluíram idade, gênero, estado civil, situação laboral, escolaridade, religiosidade, etnia, clínica que encaminhou, diagnóstico de origem, diagnóstico da Clínica da Dor, tempo e tipo de dor. Os instrumentos de avaliação foram uma ficha eletrônica e o exame físico realizado por médico especialista em dor. A coleta de dados ocorreu no momento da primeira visita à clínica, antes da interação com qualquer provedor de cuidados de saúde.
RESULTADOS: A prevalência de dor foi maior no sexo feminino (58,5%), nos casados (66,4%), nos inativos (62,5%) e naqueles com escolaridade média de 6,8 ± 3,5 anos. A maioria tem crenças religiosas (93,7%). O tempo médio de dor foi de 32,6 ± 21,9 meses. Houve correlação positiva entre intensidade e maior tempo de dor nas mulheres e nível educacional menor que 5 anos (p < 0,05).
CONCLUSÃO: Os pacientes com dor crônica anteriormente sob os cuidados de outra especialidade encaminhados para uma Clínica de Dor, fornecem dados que podem contribuir para o controle da dor com alternativas terapêuticas mais eficazes, pela interação entre os conhecimentos dos diferentes profissionais.
Descritores: Dor crônica, Medição da dor. Tratamento da dor.

INTRODUCTION

In the last decade, multidisciplinary pain clinics have become a popular alternative for traditional management of persistent pain. There is however little information describing this health service users and the impact of this new demand on health services[1].
Chronic pain is very common and its management represents significant costs for the health care system[2].
Although being considered a frequent health problem bringing severe personal and economic losses to the population, very little is known about chronic pain epidemiology in Brazil and worldwide, especially in terms of studies to identify etiologic factors of persistent pain. These studies provide a broader view of the phenomenon and give subsidies for the planning of preventive actions and the organization of health services[3].

Several epidemiological studies suggest that pain is more common during late midlife, between 55 and 65 years of age, and continues with the same prevalence during more advanced ages, regardless of anatomic location or its pathogenic cause[4].
Daily pain is a major risk factor for the development of deficiencies and older age cohorts are more vulnerable[4,5]. Similar relationships were documented for the risk of depression and mood disorders in persistent pain patients[5].
Studies report that the better understanding of the characteristics of pain patients looking for assistance, and of health professionals is critical for pain control services to better meet the needs of such patients[6,7].
Chronic and persistent pain affects patients with different diseases of different durations, however there is a common feature, the lack of understanding of factors triggering or maintaining its development and prevalence, in well conducted studies[7].
This study aimed at identifying the clínical profile of patients of a Pain Clinic, through the analysis of socio-demographic and clínical variables, correlating such variables to pain duration and intensity.

METHOD

This is a descriptive and exploratory study of transversal cohort, carried out with 128 individuals seen by an outpatient setting specialized in pain management.
Data for clínical profile analysis were obtained from history and physical evaluation during screening performed by a pain specialist. Studied variables were: age, gender, marital status, pain duration, labor status, education, religiousness, ethnicity, clinic referring patients, original diagnosis, Pain Clinic diagnosis, pain duration and type. Non-parametric Chi-square test was used for correlation among variables and a descriptive analysis has been made to characterize the sample. P < 0.05 was considered statistically significant.
This study was approved by the Research Ethics Committee, School of Medicine of São José do Rio Preto (2384/2010).

RESULTS

Studied sample was made of 75 females (58.5%) and 53 males (41.5%), aged between 25 and 75 years, with mean age of 47.78 ± 12.49 years. Frequency distribution of the variables marital status, labor status, education, religiousness and ethnicity are shown in table 1.

Table 1 – Percentage distribution for variables marital status. labor status. education. religiousness and ethnicity.

Variables	%	Mean & Standard Deviation
Marital status		
Single	11.7 (n = 15)	
Married	66.4 (n = 85)	
Divorced	15.6 (n = 20)	
Widow	6.3 (n = 8)	
Labor status		
Active	37.5 (n = 48)	
Inactive	62.5 (n = 80)	
Education		
No school attendance	3.1 (n = 4)	6.8 ± 3.5 years
1st level	25.1 (n = 35)	
2nd level	44.5(n = 57)	
3rd level	27.3 (n = 32)	
Religiousness		
None	6.25 (n = 8)	
Catholic	30.3 (n = 39)	
Protestant/evangelical	49.3 (n = 63)	
Spiritist	14.15 (n = 18)	
Ethnicity		
Caucasian	66.5 (n = 86)	
Not Caucasian	33.5 (n = 42)	
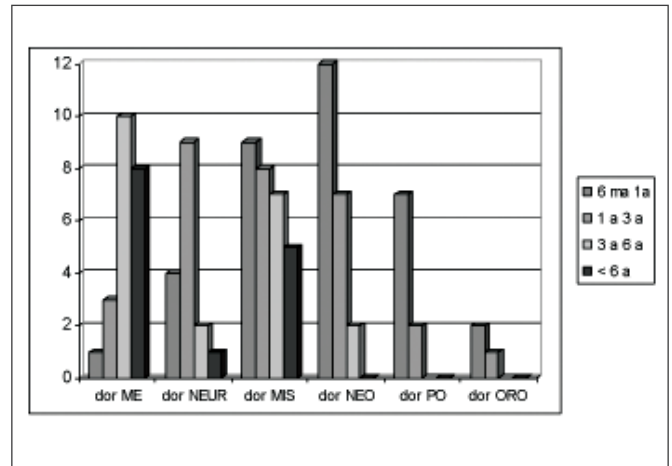
Graph 1 – Correlation between pain duration and frequency of types of pain.
ME = musculoskeletal; NEUR = neuropathic; MIS = mixed (neuro-pathic + musculoskeletal); NEO = neoplastic; PO = postoperative; ORO = orofacial.

Graph 2 – Frequency of specialties referring patients to the Pain Clinic.
NRC = neurocirurgia; ONC = oncologia; ORT = ortopedia; REUM = reumatologia; OTORR = otorrinolaringologia; VASC = vascular; GINECO = ginecologia; DREM = dermatologia; OFTAL = oftalmo-logia; CARDIO = cardiologia; CIR. PLAS = cirurgia plástica.

Mean pain duration was 32.6 ± 21.9 months (median of 23 months), with minimum duration of 11 months and maximum duration of 120 months (Graph 1).

With regard to original diagnosis and that performed by the pain specialist, there is no terminology consensus, however without discrepancy with regard to the referral diagnosis.

Graph 2 shows specialties referring patients to the Pain Clinic.

Table 2 shows pain intensity and pain duration with regard to gender and educational level. Males have more moderate pain (48%), with higher incidence between 42 and 60 years of age. Females have more severe pain, with higher incidence between 35 and 55 years of age.

Table 2 – Distribution of variables: pain intensity and duration according to gender and educational level means.

Variables	Gender Frequency %		Educational level Frequency %	
	Male	Female	< 5 years	> 6 years
Pain intensity				
Mild	17	13	25	75
Moderate	48	28	38	62
Severe	19	36	51	49
Very severe	16	23	63	37
	p = 0.03*		p = 0.04*	
Pain duration				
6 m to 1 year	32	15	24	22
1 to 3 years	28	28	31	33
3 to 6 years	23	32.5	32	37
> 6 years	17	24.5	13	8
	p = 0.04*		p = 0.06	

*Level of significance – $p < 0.05$

DISCUSSION

It is estimated that approximately 50 million people in Brazil suffer of some type of pain, being it the major reason for looking for health assistance, since pain is considered today a severe public health problem[8].

In our study, female gender, productive age, living with spouse, low educational level and inactivity were more prevalent for chronic pain, which is in line with other studies[9,10].

An American study to evaluate the impact of chronic pain in the community has analyzed 4611 individuals[11] and has observed that females were more affected. A different study with 2184 individuals with neck pain and incapacity has shown the same predominance[12]. A single paper has not shown differences between genders; however this population was made up of youngsters, which should be taken into consideration when analyzing such results[13]. Hormonal variations, lower pain threshold and tolerance and higher capacity to discriminate it may explain such differences.

With regard to age and labor status, our study has shown mean age of 47.78 ± 12.49 years and that most patients were inactive (62.5%). Some studies believe that pain affecting middle-aged adults with 40 to 49 years of age may be associated to labor activities, since this is an economically active group[9,14].

Also with regard to inactivity, a recent study relating pain to opioids prescription has reported that the shorter the opioid prescription period, the shorter the time patients are absent from work[15].

With regard to pain and marital status, our study has shown that most patients were married, ratifying a study on chest pain where the authors have reported significantly early manifestation for care and shorter pain duration in married males with acute myocardial infarction associated to chest pain[16].

An American study has shown that spiritual practices are a way for individuals to deal with cancer pain, and has described in patients of a cancer center contrast expressions and values about using spirituality to control pain in Afro-American and Caucasian individuals[17]. They have observed that groups were not different in demographics, pain status or integrative therapies, but the Afro-American group made more use of spirituality, mobilizing internal resources with more frequency and improving pain. In our study, 93% of patients reported having spiritual practices and 66.5% of individuals were Caucasian.

Pain intensity was higher and duration was longer for females, with values similar to those found by other studies[18,19].

Our study has shown a positive correlation between musculoskeletal pain and pain duration, in line with a study which shows that in addition to individual behavioral factors in face of chronic musculoskeletal pain, when pain tends to be more persistent or continuous, resolution prognosis becomes more limited or grim[15].

Specialties referring more patients to the Pain Clinic were oncology, neurosurgery, rheumatology and orthopedics. No similar data were found in the literature. These are the specialties dealing with a higher number of chronic pain patients, what explains their higher referral of patients to the Pain Clinic, which is a multiprofessional clinic, thus more qualified to treat such patients than specialists alone.

Our study has observed that moderate pain prevails in males (48%), and was more frequent between 42 and 60 years of age; for females, pain was more severe and affected patients between 35 and 55 years of age. These results are in line with a study which has identified gender differences with regard to pain, with higher scores for females[20].

The relationship between very severe pain and low

educational level shown by this study is in line with other flndings, where pain intensity was related to low educational level[21,22].

CONCLUSION

Chronic pain patients, previously being cared by other specialties and referred to a Pain Clinic supply data which may contribute for pain control with more effective therapeutic alternatives by the interaction of knowledge of different professionals.

REFERENCES

1. Waller A, Groff SL, Hagen N, et al. Characterizing distress, the 6th vital sign, in an oncology pain clinic. Curr Oncol 2012;19(2):53-9.
2. Vetter TR. A clínical profle of a cohort of patients referred to an anesthesiology-based pediatric chronic pain medicine program. Anesth Analg 2008;106(3):786-94.
3. Teixeira MJ, Yeng LT, Garcia OG, et al. Failed back surgery pain syndrome: therapeutic approach descriptive study in 56 patients. Rev Assoc Med Bras 2011;57(3):282-7.
4. Silva MC, Fassa AG, Valle NCJ. Dor lombar crônica em uma população adulta do Sul do Brasil: prevalência e fatores associados. Cad Saúde Pública 2004;20(2):377-85.
5. Brennan DS, Singh KA. Dietary, self-reported oral health and socio-demographic predictors of general health status among older adults. J Nutr Health Aging 2012;16(5):437-41.
6. North F, Ward WJ, Varkey P, et al. Should you search the Internet for information about your acute symptom? Telemed J E Health 2012;18(3):213-8.
7. Dick BD, Rashiq S, Verrier MJ, et al. Symptom burden, medication detriment, and support for the use of the 15D health-related quality of life instrument in a chronic pain clinic population. Pain Res Treat 2011;2011:809-71.
8. Barros N. Manejo da dor no Brasil. Rev Dor 2005;6(4):645.
9. Darnall BD, Stacey BR. Sex differences in long-term opioid use: cautionary notes for prescribing in women. Arch Intern Med 2012;172(5):431-2.
10. Martins MRI, Foss MHD, Santos Junior R, et al. A eflcácia da conduta do grupo de postura em pacientes com lombalgia crônica. Rev Dor 2010;11(2):116-21.
11. Smith BH, Mactariane GJ, Torrance N. Epidemiology of chronic pain, from the laboratory to the bus stop: time to add understanding of biological mechanisms to the study of risk factors in population-based research? Pain 2007;127(1-2):5-10.
12. Fejer R, Kyvik KO, Hartvigsen J. The prevalence of neck pain in the world population: a systematic critical review of the literature. Eur Spine J 2006;15(6):834-48.
13. Mallen C, Peat G, Thomas E, et al. Severely disabling chronic pain in young adults: prevalence from a population-based postal survey in North Starforshire. BMC Musculoskelet Disord 2005;6:42.
14. Crombez G, Viane I, Eccleston C, et al. Attention to pain and fear of pain in patients with chronic pain. J Behav Med 2012;22(2):919-31.
15. Atzema CL, Austin PC, Huynh T, Hassan A, Chiu M, Wang JT, Tu JV. Effect of marriage on duration of chest pain associated with acute myocardial infarction before seeking care.CMAJ. 2011 Sep 20;183(13):1482-91.
16. Cifuentes, Manuel MD, ScD; Powell, Ryan MA; Webster, Barbara BSPT. Shorter time between opioid prescriptions associated with reduced work disability among acute low back pain opioid users.J Occup Environ Med. 2012; 54(4):491-6.
17. Buck HG, Meghani SH. Spiritual expressions of african americans and whites in cancer pain.J Holist Nurs. 2012; 30(2):107-16.
18. Reitsma M, Tranmer JE, Buchanan DM, et al. The epidemiology of chronic pain in Canadian men and women between 1994 and 2007: Longitudinal results of the National Population Health Survey. Pain Res Manag 2012;17(3):166-72.
19. Johnston V, Jimmieson NL, Jull G, et al. Contribution of individual, workplace, psychosocial and physiological factors to neck pain in female offlce workers. Eur J Pain 2009;13(9):985-91.
20. Barnabe C, Bessette L, Flanagan C, et al. Sex differences in pain scores and localization in in‡ammatory arthritis: a systematic review and metaanalysis. J Rheumatol 2012;15(1):1078-7.
21. Mehanna HM, De Boer MF, Morton RP. The association of psycho-social factors and survival in head and neck cancer. Clin Otolaryngol 2008;33(2):83-9.
22. Hogg MN, Gibson S, Helou A, et al. Waiting in pain: a systematic investigation into the provision of persistent pain services in Australia. Med J Aust 2012;196(6):386-90.