# Prevalence of chronic pain in a Basic Health Unit of a middle-sized city\*

Prevalência de dor crônica em uma Unidade Básica de Saúde de cidade de médio porte Luiz Fernando Ruviaro<sup>1</sup>, Lidiane Isabel Filippin<sup>2</sup>

\* Received from the Basic Health Unit Dr. Roberto Binato. Santa Maria. RS.

# **SUMMARY**

BACKGROUND AND OBJECTIVES: Pain is a multifactorial phenomenon and one of the most frequent symptoms reported during medical visits. This study aimed at evaluating the prevalence of chronic pain among users of a Basic Health Unit (BHU) of the city of Santa Maria, RS.

**METHOD**: This is a transversal study evaluating individuals of both genders, above 18 years of age, who were in the waiting room of BHU. Identification data, generic quality of life questionnaire (SF-12), functional capacity scale for chronic pain patients and visual analog scale (VAS) were applied.

RESULTS: From all respondents, 37.8% had chronic pain, mean age was  $46.3 \pm 16.4$  years with predominance of females (87%). Chronic pain intensity evaluated by VAS was  $7.38 \pm 2.16$ .

**CONCLUSION**: In spite of the small sample size of this study, it is important to develop preventive strategies aiming at well-being and quality of life of chronic pain patients. Keywords: Chronic pain, Primary health attention, Quality of life.

#### **RESUMO**

JUSTIFICATIVA E OBJETIVOS: A dor é um fenômeno multifatorial e um dos sintomas mais frequente nas

1. Physical Therapy Student, Franciscan University Center (UNIFRA). Santa Maria, RS, Brazil.

Correspondence to: Lidiane Filippin Rua Silva Jardim, 1175 97010-491 Porto Alegre, RS. Phone: (51) 8444-8701 E-mail: 1.fllippin@terra.com.br

consultas médicas. O objetivo deste estudo foi avaliar a prevalência de dor crônica nos usuários de uma Unidade Básica de Saúde (UBS) na cidade de Santa Maria, RS.

**MÉTODO**: Estudo de caráter transversal em que foram avaliados indivíduos de ambos os sexos, maiores de 18 anos que se encontravam na sala de espera da UBS. Dados de identificação, questionário genérico de qualidade de vida (SF-12), escala de capacidade funcional em pacientes com dor crônica e a escala analógica visual (EAV) foram aplicados.

**RESULTADOS**: 37,8% dos indivíduos entrevistados possuíam dor crônica, a média de idade foi de 46.3 ± 16,4 anos, com predominância feminina (87%). Nos indivíduos portadores de dor crônica a intensidade da dor, avaliada pela EAV foi de  $7.38 \pm 2.16$ .

CONCLUSÃO: Apesar da pequena população do estudo, é importante tracar estratégias preventivas visando o bem estar e a qualidade de vida dos pacientes.

Descritores: Atenção primária a saúde, Dor crônica, Oualidade de vida.

#### INTRODUCTION

Pain has been a major human concern since the dawn of humanity. It is a red ‡ag informing people about some biological change. It is a multifactorial phenomenon where tissue injury, emotional, socio-cultural and environmental aspects unify them<sup>1,2</sup>. Its manifestation is different and unique for each individual because each one has an individual perception about pain. In addition, pain is associated to physical and psychic factors<sup>3</sup>.

Pain is a symptom and one of the most frequent reasons for looking for medical aid4. It is estimated than 80% of the world population look for the health system due to this morbidity<sup>5</sup>. In Brazil, it is estimated that chronic pain affects between 30% and 40% of the population and is the primary reason for absenteeism, medical

<sup>2.</sup> Professor of the Franciscan University Center (UNIFRA); Doctor in Medical Sciences, Federal University of Rio Grande do Sul (UFRGS). Porto Alegre, RS, Brazil.

leaves, early retirement, labor indemnities and low productivity, being considered a public health problem<sup>6-8</sup>. In January 2000, the Joint Commission on Accreditation of Healthcare Organizations (JCAHO) has published a standard describing pain as the flfth vital sign. So, it should always be evaluated and recorded together with other vital signs so that necessary adjustments are made to the treatment. Pain complaint should always be valued and respected due to the discomfort it brings<sup>9,10</sup>.

Pain management policy, be it with its own control, be it by providing palliative care, is a major example of universality and transversality of interdisciplinary activities in the public health area. Assistance to painful patients is complex, requiring both knowledge and skill from the assistance team to adequately notice and manage pain<sup>11</sup>

So, pain control is an imperative public health practice, especially in basic health care, due to the demand for health services and to the unfavorable social impact on quality of life of chronic pain patients<sup>12</sup>. It is important to stress that the lack of adequate diagnosis and treatment during the acute phase may favor pain chronicity and worsen clinical presentation<sup>13</sup>. So, this study aimed at investigating the prevalence of chronic pain and its impact on quality of life of users of a basic health unit.

## **METHOD**

This is a transversal study focused on users of the Family Health Strategy Dr. Roberto Binato, in the city of Santa Maria – RS. Its coverage area is a population of approximately 13 thousand inhabitants. We have interviewed individuals who were in the waiting room for medical or dental assistance. Individuals of both genders, with more than 18 years of age were included, and pregnant women, people with neuropsychiatric diseases and neoplasias were excluded. All participants have signed the free and informed consent term (FICT).

Our research has investigated the prevalence of chronic pain in these users, having as tools the personal data questionnaire, the generic quality of life questionnaire (SF-12), the functional capacity scale for chronic pain patients and the visual analog scale (VAS).

SPSS 15.0 software was used for data analysis. Symmetric data were presented in mean and standard deviation. Asymmetric data were expressed in median and percentiles (p25 and p75).

This study was approved by the Research Ethics Committee, Franciscan University Center under n. 210.2011.2.

## RESULTS

Participated in this study 45 individuals. Sample identification data are shown in table 1. Chronic pain prevalence in this study was 37.8% and mean pain intensity by VAS was  $7.38 \pm 2.16$  (Table 1).

Table 1 – Demographics

Variables		
Age (years) <sup>‡</sup>		$46.37 \pm 16.47$
Gender	Female	86.66%
Marital status		
	Single	24.44%
	Married	53.33%
	Divorced	8.88%
	Widow	13.33%
Profession		
	Housewife	42.22%
	Retired	15.55%
	Free lance	6.66%
	Dress maker	4.44%
	Housemaid	8.88%
	Others	22.2%

<sup>‡</sup> Data in mean and standard deviation.

Other variables presented in percentages.

SF-12 questionnaire was applied to all respondents. Physical health of individuals with no chronic pain was  $48.8 \pm 10.6$ . Mental health domain evaluation has shown values of  $45.7 \pm 12.1$ . Physical health refers to functional capacity which considers physical aspects, pain and general health status of SF-12 questionnaire, while mental health refers to mental health contemplating emotional aspects, social aspects and vitality of the same questionnaire<sup>14</sup>. Table 2 shows general data about quality of life and prevalence of pain of chronic pain respondents.

Table 2 – Data related to pain, quality of life and functional capacity of chronic pain patients.

Variables	$Mean \pm DP$		
Visual analog scale	$7.38 \pm 2.2$		
SF-12			
Physical health	$42.6 \pm 13.2*$		
Mental health	$43.7 \pm 10.9$		
Chronic pain functional capacity			
Pain	$5.58 \pm 0.5$		
Pain physical activities	$3.48\pm0.2$		
Pain emotional activities	$3.64 \pm 0.2$		

<sup>\*</sup>p < 0.05 versus SF-12 in individuals with no chronic pain.

#### DISCUSSION

Pain is a symptom frequently referred by patients in primary health care. Pain is an alert symptom, common to several diseases with negative impact in health-related quality of life. So, diagnosis and treatment in primary health care is important, so that pain does not reach more complex health care levels<sup>15</sup>.

Even being a direct expression of departure from a healthy condition, pain and functional incapacity are overlooked elements by the basic health care in Brazil since they are not specifically recorded by basic health units (BHU). This is in contrast with one responsibility of the basic care strategy in Brazil, which is to maintain a proactive position when facing population's health-disease problems<sup>16</sup>.

In our study, 37.8% of respondents had chronic pain. Mean age was  $46.3 \pm 16.4$ , with female predominance (87%). In chronic pain individuals, pain intensity by VAS was  $7.38 \pm 2.16$ . The high VAS score indicates relatively severe pain and the large number of individuals with this daily complaint may orient basic care services to this part of the population, since there is a strong association between pain and low working capacity<sup>17</sup>.

Pain incidence is increasing due to new lifestyles, longer life expectancy and environmental changes. In addition to generating physical and emotional stress, it is the reason for high economic and social expenditures for society. Data from the National Institute of Social Security (INSS), from 2007, show that 20% of benefits granted due to medical leave were aimed at chronic pain patients<sup>18</sup>

A study carried out from January 2004 to January 2008 has shown that the mean cost for a chronic pain patient is R\$ 127.00 per month (varying between R\$ 5.00 and R\$ 780.00) being these amounts spent only with medications<sup>19</sup>. A study was carried out in the city of Sorocaba with chronic pain patients treated by the three health care levels and has observed a major chronic pain demand in basic health care units<sup>20</sup>.

Our study has evaluated quality of life by the SF-12 questionnaire. This is a summarized version of the SF-36 questionnaire with 12 items encompassing eight SF-36 dimensions. It has two domain areas: physical health and mental health. Respondents have shown values below the cutoff point for such questionnaire ( $42.6 \pm 13.2$ ) suggesting a poorer quality of physical life as compared to individuals without chronic pain (p < 0.05). However, there has been no significant difference in mental health. Maybe with a larger sample this could have been shown.

Added to the quality of life questionnaire, we have also evaluated functional capacity of chronic pain patients. This scale has three dimensions: pain intensity, interference with functional and emotional activities.

The population evaluated presented moderate pain (5.6  $\pm$  0.47) and interference both with functional and emotional activities (3.48  $\pm$  0.21 and 3.64  $\pm$  0.18, respectively). A study<sup>21</sup> on the impact of chronic pain on quality of life has shown that it has a negative impact on quality of life of up to two thirds of patients, especially on the ability to exercise, to practice sports, to perform daily life activities, as well as to perform labor activities. A different study<sup>22</sup> evaluating functional capacity by the Older American Resources and Services (OARS) scale, validated for the Portuguese language, with 111 elderly people with chronic pain and living in the area of a BHU in the city of Londrina, PR, has observed interference, especially with sleep, mood and leisure, that is, chronic pain has negative impact on patients' functional capacity, especially to perform daily activities, and may limit or even lead to functional incapacity.

In spite of the small sample size, it is important to stress that preventive strategic measures are needed to promote well being and quality of life of chronic pain patients.

# **CONCLUSION**

Chronic pain directly affects function and quality of life of patients and, due to its high prevalence, there is the need for further BHU professionals attention to treat it efflciently.

## REFERENCES

- 1. Castro M, Kraychete D, Daltro C, et al. Comorbid anxiety and depression disorders in patients with chronic pain. Arg Neuro-Psiquiatr 2009;67(4):982-5.
- 2. Basbaum AI, Batista DM, Scherrer G, et al. Cellular and molecular mechanisms of pain. Cell 2009;139(2):267-84.
- 3. Rocha APC, Kraychete DC, Lemonica L, et al. Dor: Aspectos Atuais da Sensibilização Periférica e Central. Rev Bras Anestesiol 2007;57(1):94-105.
- 4. Holtz VV, Stechman J. Epidemiologia da dor em pacientes de Curitiba e região metropolitana. Rev Dor 2008;9(2):1217-24.
- 5. Kerns R, Otis J, Rosenberg R, et al. Veterans' reports of pain and associations with ratings of health, healthrisk behaviors, affective distress, and use of the healthcare system. JRRD 2003;40(5):371-80.
- 6. Cipriano A, Almeida DB, Vall J. Perfll do paciente

- com dor crônica atendido em um ambulatório de dor de uma grande cidade do sul do Brasil. Rev Dor 2011;12(4):297-300.
- 7. Dellaroza MSG, Pimenta CAM, Matsuo T. Prevalência e caracterização da dor crônica em idosos não institucionalizados. Cad Saúde Pública 2007;23(5):1151-60.
- 8. Sá K, Baptista AF, Matos MA, et al. Prevalência de dor crônica e fatores associados na população de Salvador, Bahia. Rev Saúde Pública 2009;43(4):622-30.
- 9. Luppen LS, Sampaio FH, Standñik CMB. Satisfação dos pacientes com a implantação do conceito dor o quinto sinal vital, no controle da dor pós-operatória. Rev Dor 2011;12(1):29-34.
- 10. Sloman R, Wruble AW, Rosen G, et al. Determination of clinically meaningful levels of pain reduction in patients experiencing acute postoperative pain. Pain Manag Nurs 2006;7(4):153-8.
- 11. Leite F, Gomes JO. Dor crônica em um ambulatório universitário de flsioterapia. Rev Ciênc Méd 2006;15(3):211-21.
- 12. Cordeiro Q, Khouri MI, Ota D, et al. Lombalgia e cefaléia como aspectos importantes da dor crônica na atenção primária à saúde em uma comunidade da região amazônica brasileira. Acta Fisiatr 2008;15(2):101-5.
- 13. Brennan F, Carr DB, Cousins M. Pain management: a fundamental human right. Rev Pain Med 2007;105(1):205-21.
- 14. Chamlian TR, Melo ACO. Avaliação funcional em pacientes amputados de membros inferiores. Acta Fisiatr 2008;15(1):49-58.
- 15. Dal Ponte ST, Machado A, Dutra APG, et al. Dor como queixa principal no serviço de Pronto-Atendimen-

- to do Hospital Municipal de São Pedro do Sul-RS. Rev Dor 2008;9(4):1345-9.
- 16. Brasil. Ministério da Saúde. Secretaria de Atenção à Saúde. Departamento de Atenção Básica. Política nacional de atenção básica / Ministério da Saúde, Secretaria de Atenção à Saúde, Departamento de Atenção à Saúde. Brasília: Ministério da Saúde, v. 4, 2006.
- 17. Mata MS, Costa, FA, Souza, TO, et al. Dor e funcionalidade na atenção básica à saúde. Rev Ciênc Saúde Coletiva 2011;16(1):221-30.
- 18. Sousa JB. Poderia a atividade física induzir analgesia em pacientes com dor crônica? Rev Bras Med Esp 2009;15(2):145-50.
- 19. Vlainich R, Zucchi P, Issy AM, et al. Avaliação do custo do medicamento para tratamento ambulatorial de pacientes com dor crônica. Rev Bras Anestesiol 2010;60(4):399-405.
- 20. Martinez JE, Macedo AC, Pinheiro DFC, et al. Perfll clínico e demográfico dos pacientes com dor musculoesquelética crônica acompanhada nos três níveis de atendimento de saúde de Sorocaba. Acta Fisiatr 2004;11(2):67-71.
- 21. Brasil VV, Zatta LT, Cordeiro JABL, et al. Qualidade de vida de portadores de dores crônicas em tratamento com acupuntura. Rev Elet Enf 2008;10(2):383-94.
- 22. Trelha CS, Panazzolo D, Dellaroza MSG, et al. Capacidade funcional de idosos com dor crônica residentes na comunidade. Rev Bras Geriatr Gerontol 2008;2(2):59-64.

Submitted in February 18, 2012. Accepted for publication in May 24, 2012.