Original Article

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DEGREE OF DISABILITY OF RESIDENTS OF VALENÇA-RJ, BRAZIL DUE TO LOW BACK PAIN.

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ABASTRACT

Low back pain is a very common complaint, but a point that instigates would be the real disability that this symptom generates in people's daily lives, what is the relationship between the intensity of low back pain and its importance in the participants' routine. Low back pain is the second most prevalent health condition in Brazil, second only to cases of high blood pressure, which shows us the importance of the study. We sought to assess whether this very prevalent symptom, so intense in many cases, has an important significance in daily, professional, physical and psychological activities. The aim is to assess the disability generated by low back pain. The present study was carried out descriptively with a cross-sectional design, in a sample composed of 70 individuals. To verify the degree of disability caused by low back pain, the Oswestry questionnaire was used, and to quantify pain, the visual pain scale was used. In the visual pain scale, 94.3% of the participants reported moderate and severe pain, unlike the Oswestry scale, in which 84.3% of the patients had minimal and moderate disability.

KEYWORDS: Low back pain; Inability; Visual pain scale; Oswestry Quiz.

INTRODUCTION

Low back pain can be defined as muscle tension, pain or stiffness located above the lower gluteal fold and below the rib cage, associated or not with low back pain. It can reach up to 84% of people at some time in their lives, up to 65% of people annually and has a prevalence of 11.9% in the world population. Even with such high numbers, between 90 and 95% of cases it is not possible to determine a specific diagnosis for low back pain.

In the United States, low back pain is the most common cause of inability to perform activities among people under 45 years old, it is the fifth cause of hospital admission, the third cause of surgical procedures and the second most frequent reason for medical visits.[1]

Disability ranges from 11% to 76% and this large range is due both to the concepts of disability adopted and to the different means used to assess this phenomenon. Such variation makes it difficult to compare studies.[2]

Disability related to low back pain is a complex and multifactorial phenomenon. It can be influenced by postural, individual, constitutional and occupational factors. Congenital factors, inflammatory processes, infections, degenerative causes can also be the big reason. Sleep disorders, irritability and changes in appetite may be present together with the symptoms studied.[1,2]

Studies show that limitations can be partially explained by factors unrelated to the disease itself. Psychosocial and occupational factors such as fear and difficulties in the work environment may be directly related to disability. Some authors argue that psychosocial factors may be more important than physiological aspects in low back pain and disability.[2]

Low back pain can lead to a decrease in quality of life through unsuccessful treatments, constant and dependent use of medications, social isolation, problems at work and emotional changes, in addition to limiting functional capacity in daily activities.[3]

The demand for low back pain treatment is growing more and more. Attendances in hospitals and clinics lead to an increasing number of health care expenses.[1] The cost of such demand is reflected in the public service budget. About 50 billion dollars annually are spent on expenses related to low back pain in the world. In Brazil, diseases that generate low back pain are the main causes of expenses with sick pay and the third cause of disability retirement.[4]

In addition to the previously mentioned factors, psychosocial factors and a decrease in the individual's participation in daily activities are consequences that increase the demand for treatment to minimize the damage caused by low back pain.[4]

Therefore, low back pain is seen as a public health problem with social, health and economic importance that affects the population as a whole and which must be managed effectively.[3]

METODOLOGY

This is a descriptive study with a cross-sectional design. The sample consisted of 70 individuals, with no age restriction, including males and females in a random proportion. Although the number of participants of each gender was not predetermined in the sample, the prevalence was evaluated jointly and separately.

Data were collected at the Central Market of Valença / Rio de Janeiro, Brazil during the activities of the extension project "Move in the best age" and at the outpatient clinic of the Hospital Escola Luiz Gioseffi Jannuzzi,Valença, Brazil, which is also located in the aforementioned city. The data for this study were collected by Members during 2018.

The Oswestry questionnaire is an instrument used to assess the disability generated by low back pain in the present study. The scale consists of 10 questions with 6 alternatives each. The first question evaluates the intensity of the low back pain and the other nine, the inability generated by the pain in daily activities such as: getting dressed and bathing, walking, lifting weights, when sitting, standing, sleeping, in your sex life, social and locomotion. After calculating the percentage, the questionnaire classifies it as minimal disability (0% to 20%), moderate disability (21% to 40%), severe disability (41% to 60%), crippled (61% to 80%) and disabled (81% to 100%).[5,6]

Pain intensity is subjective, however, pain needs a quantitative assessment for its diagnosis and treatment follow-up. For this purpose, we used the visual pain scale for quantification. There is a numerical pain visual scale, which ranges from 0 to 10; the visual categorical pain scale, which is divided into five points from 0 to 4; the visual pain scale of faces; and the glass pain visual scale, which in the no-pain stage, the glass is empty and mild pain, full glass.[5,7]

RESULTS

Analyzing the data, it was possible to observe that 61.4% of the sample was female, the other 38.6% male. Analyzing the classification of the Oswestry questionnaire, 43.3% of the participants fit as minimal disability, 40.0% as moderate disability, 12.9% as severe disability and 2.9% as crippled. No one was classified as disabled.

Evaluating with gender separation, 39.5% of the participating women fit as minimal disability, 46.5% as moderate disability, 9.3% as severe disability and 4.7% as crippled. No one was classified as disabled.

In the case of the men evaluated in the present study, 51.9% fit as minimal disability, 44.4% as moderate disability, 3.7% as severe disability. No one was classified as a cripple or an invalid.

Regarding the visual pain scale, globally, unlike the data obtained by the Oswestry questionnaire, a minority of people classified their pain as mild, only 5.7%. 52.9% of the participants had moderate pain and 41.4% classified their pain as severe.

Taking the female participants as a note, 4.7% of the sample reported their pain as being mild. 58% took the pain to a moderate degree and 39.5% characterized it as severe. Among males, 44.4% reported suffering from severe pain, 48.1% from moderate pain and only 7.4% from mild pain. Figure 1

GENDER	Nº	%
Male	27	38,6%
Female	43	61,4%
TOTAL	**70**	**100,0%**

VISUAL PAIN SCALE	Nº	%
0	2	2,9%
1	0	0,0%
2	2	2,9%
Light	**4**	**5,7%**
3	5	7,1%
4	6	8,6%
5	11	15,7%
6	8	11,4%
7	7	10,0%
Moderate	**37**	**52,9%**
8	10	14,3%
9	9	12,9%
10	10	14,3%
Serious	**29**	**41,4%**
TOTAL	**70**	**100,0%**

VISUAL PAIN SCALE (Women)	Nº	%
0	1	2,3%
1	0	0,0%
2	1	2,3%
Light	**2**	**4,7%**
3	2	4,7%
4	5	11,6%
5	5	11,6%
6	6	14,0%
7	6	14,0%
Moderate	**24**	**55,8%**
8	6	14,0%
9	5	11,6%
10	6	14,0%
Serious	**17**	**39,5%**
TOTAL	**43**	**100,0%**

VISUAL PAIN SCALE (Men)	Nº	%
0	1	3,7%
1	0	0,0%
2	1	3,7%
Light	**2**	**7,4%**
3	3	11,1%
4	1	3,7%
5	6	22,2%
6	2	7,4%
7	1	3,7%
Moderate	**13**	**48,1%**
8	4	14,8%
9	4	14,8%
10	4	14,8%
Serious	**12**	**44,4%**
TOTAL	**27**	**100,0%**

OSWESTRY		Nº	%
0 a 20%	Minimum Disabili	31	44,3%
21 a 40%	Moderate Disabil	28	40,0%
41 a 60%	Severe Disability	9	12,9%
61 a 80%	Crippled	2	2,9%
81 a 100%	Invalid	0	0,0%
TOTAL		**70**	**100,00%**

OSWESTRY (Women)		Nº	%
0 a 20%	Minimum Disabili	17	39,5%
21 a 40%	Moderate Disabil	20	46,5%
41 a 60%	Severe Disability	4	9,3%
61 a 80%	Crippled	2	4,7%
81 a 100%	Invalid	0	0,0%
TOTAL		**43**	**100,0%**

OSWESTRY (Men)		Nº	%
0 a 20%	Minimum Disabili	14	51,9%
21 a 40%	Moderate Disabil	12	44,4%
41 a 60%	Severe Disability	1	3,7%
61 a 80%	Crippled	0	0,0%
81 a 100%	Inválido	0	0,0%
TOTAL		**27**	**100,0%**

Figure 1. Results.

DISCUSSION
The prevalence of pain-related disability in this research was 55.8% (comprising the sum of moderate and severe disability), lower than that reported by other studies[2,8], which observed adults and the elderly and found prevalence results between 68% and 80%. .7%. As for the perception of pain in the evaluated participants, 41.4% had a score above eight, a lower value than that found in Stefane et al (2013) which presented 73.19%.

In our study, we did not find statistical significance between the Oswestry Disability Index and pain intensity. On the visual pain scale, 94.3% of participants reported moderate and severe pain, unlike the Oswestry scale in which 84.3% of patients had minimal and moderate disability, as found in studies with the same theme[2,4], which also found a weak association between these variables, justifying that the relationship may suffer interference from variables such as depression, emotion and catastrophizing, which can override the painful aspect as the main disabling factor.

In a study carried out by other researchers[3], they used another questionnaire to assess the disability caused by low back pain (Roland-Morris questionnaire), but their results show that low back pain causes severe disability in the study participants. He also reports that other studies carried out in the United States showed moderate degree of disability. He also reinforces his thesis with a study that took place in Slovenia, this study points out that at least 50% of the sample has moderate to severe disability due to low back pain.[3]

Stefane et al (2013) also correlates disability with pain intensity, in addition to assessing the quality of life item. He reports that the study found a weak association between pain intensity and disability and quality of life, pointing out that the relationship between intensity and degree of disability and quality of life is weak, but makes clear the relationship between the studied factors and self-efficacy beliefs , catastrophizing and depression, as evidenced by other studies.[2,4]

The aforementioned author[3] also assesses disability with some domains of quality of life that have been shown to influence disability and pain intensity. The same study and another[9] separated into the following domains: physical, psychological, social relationships and environment and evaluated gender, age, BMI, education, income, smoking, time since diagnosis, among others, within these domains.

CONCLUSION
Among the results of our work, it is possible to conclude that low back pain really has an importance and participation with regard to disability. However, it was not possible to find a correspondence between degree of disability and pain intensity, since most classified their pain as moderate to severe and most were classified as minimal to moderate disability. After all, there is a relationship between moderate disability and moderate pain.

It is interesting to point out that in the analysis of data with gender division, moderate to severe pain is the majority, especially moderate pain, in both genders. However, analyzing each level of pain and comparing it with the Oswestry questionnaire, it is noticed that in females there is a correspondence that the majority of the sample has moderate pain and moderate disability.

In males, the same relationship does not exist, as most participants classified their pain as moderate, but the Oswestry questionnaire shows most of them as minimal disability. We must also take into account that in males, the difference between the number of people with moderate and severe pain is small, but the correlation of minimal to moderate disability shows a greater difference between participants.

Comparing with other previously demonstrated studies, there are results that favor our research, but others that reached conclusions contrary to ours. An important factor to be taken into account is the influence of physical, psychological, social relationships and environment.

Therefore, in order to better define the disability generated by low back pain and the relationship that the level of pain has on this issue, a more comprehensive approach is needed with questionnaires or forms of assessment that cover the domains mentioned above. Perhaps this way, we will find a more faithful correlation, even if we have been finding the common point between studies of moderate disability and moderate pain.

Proper management of low back pain is only possible through the evaluation and quantification of this subjective phenomenon and directly related factors.

COMPETING INTERESTS
Authors have declared that no competing interests exist.

CONSENT
All authors declare that 'written informed consent was obtained from the patient (or other approved parties) for publication of this case report and accompanying images. A copy of the written consent is available for review by the Editorial office/Chief Editor/Editorial Board members of this journal.

ETHICAL APPROVAL
Not applicable

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