

Aplicação da versão brasileira do questionário de dor McGill em idosos com dor crônica

Applicability of the Brazilian version of the McGill pain questionnaire in elderly patients with chronic pain

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RESUMO

A dor crônica é uma experiência multidimensional que envolve aspectos sensorio-perceptual, afetivo-motivacional e cognitivo-avaliativo que se interagem e contribuem para a resposta dolorosa final. As alterações características do processo do envelhecimento em cada um desses aspectos podem interferir na experiência da dor, dificultando a sua avaliação adequada. O uso de uma escala multidimensional como o Questionário de dor McGill (MPQ) possibilita uma avaliação mais adequada desse sintoma. Os objetivos desse estudo foram verificar a confiabilidade intra e inter examinadores da aplicação do Br-MPQ em idosos com dor crônica em decorrência de doenças ortopédicas e neurológicas. Participaram desse estudo 19 idosos com doenças ortopédicas (71,21 ± 7,51 anos) e 19 idosos com doenças neurológicas (69,79 ± 5,30 anos) apresentando o diagnóstico de dor crônica, encaminhados pelo serviço médico, sem alterações cognitivas. A confiabilidade geral intra e interexaminadores nos idosos com doenças ortopédicas foram 0,86 e 0,89, respectivamente, e para idosos com doenças neurológicas de 0,71 e 0,68, respectivamente (Spearman, $p < 0,05$). Os resultados mostraram que o Br-MPQ foi de fácil aplicação (8,54 ± 2,35 minutos) nessa amostra. O presente estudo demonstrou que o Br-MPQ pode ser mais adequado para avaliar a dor crônica em idosos, uma vez que a percepção desse sintoma está mais relacionada aos aspectos sensoriais, afetivos e cognitivo-avaliativos e não somente à intensidade.

PALAVRAS-CHAVE

Dor crônica, idoso, questionário de dor McGill

ABSTRACT

Chronic pain is a multidimensional experience that involves sensory-perceptual affective-motivational and cognitive-evaluation aspects, which interact and contribute to the ultimate painful response. The characteristic changes of the aging process on each of these aspects can interfere with the experience of pain, thus making appropriate assessment more difficult. The use of multidimensional scales, such as the McGill Pain Questionnaire (MPQ) makes more appropriate evaluations possible. The aims of this study were to assess the intra- and inter-examiner reliability of the Brazilian Version of the MPQ (Br-MPQ) and characterize the perceptions of chronic pain in elderly individuals with orthopedic and neurological diseases. The sample consisted of 19 elderly individuals (71.21 ± 7.51 yrs) with orthopedic (G1) and 19 (69.79 ± 5.30 yrs) with neurological diseases (G2), all with a clinical diagnosis of chronic pain but no cognitive alterations. The general intra- and inter-examiner reliability was 0.86 and 0.89 for G1, and 0.71 and 0.68 for G2, respectively ($p < 0.05$). The results showed that the Br-MPQ was easily applied to a group of elderly individuals with chronic pain (8.54 ± 2.35 minutes). The present study demonstrated that the Br-MPQ can be more effective to assess pain in the elderly, as the perception of this symptom is more associated to sensorial, affective, and subjective aspects than to pain intensity.

KEY-WORDS

chronic pain, McGill Pain Questionnaire, elderly

Received on February 21, 2006 and accepted on June 14, 2006

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Introduction

According to the International Association for the Study of Pain (IASP), pain is defined as “an unpleasant sensory and emotional experience associated with actual or potential tissue damage¹”. Currently, it can be interpreted as the evidence of the individual’s physical and/or emotional integrity compromising, representing an efficient information pathway of the several body segments with the perception². A particularly important symptom at any age range frequently associated to suffering or discomfort, the pain is no longer understood as a simple sensation, but it is currently recognized as being a very complex sensory experience, modified by the individual’s characteristics of memory, expectations and emotions².

In the elderly patient, pain is an even more important symptom due to its significant prevalence, associated to the frequent global limitation that results from it^{2,3}.

The aging process is usually accompanied by an increase in the prevalence of chronic pain⁴, joint pain⁵ and fibromyalgia⁶. However, it seems that, with the advanced age, there is a reduction of pain in all body segments, except in the joints^{7,8}.

The pain in the elderly patient is, most of the time, difficult to be recognized and consequently, often goes untreated⁹⁻¹². The disease itself does not affect the individual’s functionality^{13,14}; there is a weak correlation between health status and function (coefficient < 0.10)¹⁴. The pain and the fatigue, resulting from a health condition, are strongly associated with a low performance at the physical and social function levels. These symptoms are modifiable through several types of intervention; thus, regardless of the individual’s health status, they can be indicative of his or her functional deficits¹⁴. Therefore, it is necessary to include pain, a symptom that is rarely addressed adequately, as part of a functional assessment.

Among the elderly, chronic pain represents the main outpatient complaint and the most frequent symptom in anamnesis, occurring in 25-50% of the individuals^{2,15}. Approximately 45-80% of the institutionalized elderly present at least one type of pain, with 34% of these symptoms being referred to as continuous^{2,15,16}. Among the diseases that can be associated with chronic pain are osteoarthritis, peripheral neuropathies, osteoporosis and cancer¹¹. In the presence of pain, the morphological and functional structures of the Central Nervous System (CNS) and Peripheral Nervous System must be intact, so that the sensitive temporospatial discrimination, the neurovegetative, neuroendocrine, psychological, motor and adaptive reactions can manifest adequately¹⁷.

Individuals with chronic pain can present important complications such as depression, anxiety, social isolation, sleep disorders, restlessness, aggressiveness, cognitive function impairment, functional incapacity, and decrease of the quality of life, leading to dependence in the activities of daily life and higher costs of healthcare services^{12,18,19}. Additionally, the physical unfitnes, gait alterations, falls and the slow process of rehabilitation, polypharmacy, cognitive dysfunction and malnutrition are among the many common geriatric conditions that can be worsened by the presence of pain and/or adverse effects triggered by the drug therapy for pain¹⁸.

There are few studies on chronic pain in the elderly, and this might be due to the belief that the elderly are less sensitive to pain, and that, erroneously, pain is considered a normal and expected consequence of the aging process, and therefore, is not able to be treated.

Chronic pain is a multidimensional experience with sensory-perceptual affective-motivational and cognitive-evaluation components that interact and contribute to the final painful response^{20,21}.

The characteristic alterations of the aging process on each of these components can interfere with the experience of pain, making it difficult to attain an appropriate assessment¹².

Pain is a very individual experience formed by the context and perception of its meaning^{11,22}. Most of the tools that evaluate pain, such as the Visual Analogical Scale (VAS), Verbal Descriptor Scale (VDS), Numerical Quantification Scale and Color Analogical Scale are one-dimensional measurement of intensity¹². Among these, the VAS has been the most used in scientific investigations²³. For young individuals, this scale presents high validity and reliability; however, aging is related to the increase of incorrect responses²⁴.

The use of a multi-dimensional scale for the elderly can be more effective to assess pain, as the pain perception is more associated to sensory, affective and temporal qualities, and not only its degree of intensity²⁵.

The McGill Pain Questionnaire (MPQ) was created in 1975 by Melzack, at the McGill University in Montreal, Canada, aiming at providing qualitative pain measurements that can be statistically analyzed. This is one of the most referenced questionnaires used worldwide in clinical practice²⁶⁻³⁰. The MPQ evaluates the sensory, affective, temporal and miscellaneous qualities of pain. In addition, it includes in its scope the assessment of spatial distribution and pain intensity (“no pain” to “excruciating”). There is ample evidence of the validity, reliability and discriminating capacity of the MPQ when used with young adult individuals^{27,28}. Although it is an instrument of established reliability, it is necessary to evaluate its applicability in the elderly population, as pain is a multidimensional experience and can be influenced by the aging process.

In 1996 some authors²⁹ published a proposed adaptation of the MPQ for the Portuguese language and performed its clinical application in a sample of 57 individuals with oncologic chronic pain (mean age 50.1 yrs) and 81 individuals with chronic pain of varied etiology with a mean age of 49.1 yrs, with good results.

Subsequently, at a Master’s dissertation in neurolinguistics of the Federal University of Sao Carlos³¹, an adaptation of the MPQ for the Portuguese language was proposed and the Brazilian version of the MPQ was created, with the translation and cultural adaptation of the tool.

This version of the questionnaire seemed easier to applied to elderly individuals; however, neither version was applied to the elderly population.

The first part of the questionnaire contains a sketch of the human body used for the spatial and in-depth localization of the pain referred by the patient.

The second part seeks to collect information on the temporal properties of the pain (continuous, rhythmic, momentary), the

circumstances when the painful symptoms started to be perceived, and the pain-relieving interventions that are being or have been used to minimize the pain.

The third part, which is more original, seeks to help the patient to report the specific qualities of his or her pain. It predicts a space for spontaneous pain complaint, but it mainly consists of a group of 68 words that describe several qualities of the painful experiences in general, and which are chosen by the patients to characterize their pain, in particular.

The fourth part seeks to assess the Intensity of the Present Pain. It is an alpha-numerical anchor scale that varies from 1 to 5, associated to the following words: (1) mild; (2) moderate; (3) strong; (4) severe and (5) unbearable.

The choice of descriptors to describe the pain will depend on the individual's previous experience, the emotional stress generated by the health condition, by the peculiarities and specificity of the individual, thus creating the quality of his or her pain.

These observations are important considering that an inadequate approach of this problem can have a significant impact on the elderly individual's quality of life, leading to depression, aggressiveness, social isolation and functional impairment^{9,11,12}.

Objectives

The aims of the present study were to verify the intra and interexaminer reliability of the application of Br-MPQ in elderly individuals with chronic pain due to orthopedic and neurological diseases.

Patients and Methods

Study design

In order to assess the reliability of the Br-MPQ in the elderly population, a transversal observational methodological study was carried out. The Br-MPQ was applied to elderly individuals who resided in the community and whose complaint was chronic pain due to orthopedic and neurological diseases, referred by medical professionals. The tool reliability was assessed in this population. This study was approved by the Ethics Committee in Research protocol number ETIC 550/04.

Sampling

Data collection was carried out in the period of December 2004 to July 2005. Fifty-eight elderly individuals with a diagnosis of chronic pain, who were undergoing physical therapy, were evaluated. Twenty individuals were excluded from the study: 5 presented exacerbation of symptoms during the period of data collection, 7 did not return for reassessment, 3 joined a multidisciplinary program for chronic pain treatment and 5 refused to answer the questionnaire one more time.

After the sample calculation, 38 elderly individuals with a clinical diagnosis of chronic pain, who had been referred by the medical service, were assessed. The volunteers were allocated in two groups with 19 individuals each – one group with chronic pain

due to orthopedic diseases and the other with chronic pain due to neurological diseases. The groups were paired regarding gender and age.

The volunteers were 60 years of age or older, did not present cognitive alterations that could interfere with questionnaire understanding, identified by the use of the Brazilian version of the Mini Mental State Examination (MMSE), with a cutoff of 13 for illiterate individuals, 18 for low (0 to 4 yrs) and middle (5 to 8 yrs) educational background and 26 for high (at least 9 years of formal education)³², presented chronic pain due to orthopedic or neurological diseases and signed the Free and Informed Consent Form.

Individuals excluded from the study were those who presented acute pain, severe hearing deficits and those attending multidisciplinary services for chronic pain management.

Tool

The Br-MPQ was applied after being translated and culturally adapted for the Brazilian population.

Procedure

The questionnaire was applied individually by two previously trained examiners who followed standardized instructions.

Phase 1: Analysis of the difficulty of the elderly with the descriptors

This phase was carried out with 20 elderly individuals who resided in the community of Belo Horizonte, state of Minas Gerais, Brazil. Initially, a clinical-demographic questionnaire was applied to define the sample, which is part of the Br-MPQ. Afterward, the elderly who met the inclusion criteria were selected and referred to an assessment office of the Clinical School of Physical Therapy of Unicentro Newton Paiva. Each elderly was informed on the study and the informed consent form was read and explained to the volunteer, who then signed it in case he or she decided to participate in the study of his or her own free will. Subsequently, the researcher applied the Br-MPQ 31 to these individuals. After this phase, the elderly were asked to report whether the descriptors of the Br-MPQ were clear in order to express their pain.

The elderly assessed in the study did not present difficulties regarding most of the descriptors in the questionnaire. Regarding the item "localization and degree of pain", approximately 5% (N=1) needed help in order to differentiate "deep pain" from "superficial pain". Around 10% (N=2) of the individuals had difficulties regarding the descriptor "intermittent", which characterizes the "Temporal Pattern of Pain". Regarding the item "Description of Pain", 15% (N=3) had difficulty in differentiating the descriptors of subclass 09 that referred to the sensory characteristic deafness, which consists of the descriptors muffled and dormant. However, when the patient did not understand the meaning of the descriptor, it could and should be defined by the examiner, which was carried out during data collection³¹. Therefore, most of the elderly individuals did not present difficulties regarding the descriptors used in the Br-MPQ, and its applicability in the selected population was verified.

Phase 2: Reliability of the Br-MPQ for an elderly population with chronic pain

After Phase 1, the data collection for the study was started.

The elderly individuals who did not present cognitive alterations according to the proposed cutoff³² were invited to participate in the study, and the informed consent form was read and explained by the researcher in charge of the study. After the informed consent form was signed, the elderly were asked to answer the questionnaire on pain.

The Br-MPQ presents an assessment in its initial part, where clinical and demographic data on the assessed individual are collected. These data were used in the present study to characterize the studied sample.

The Br-MPQ was applied by the researcher and the elderly were asked to choose the descriptor that would best characterize the pain. The intra-examiner reliability was carried out by the researcher in charge of the study with a week interval between the tests.

As for the interexaminer reliability, the assistant researcher applied the questionnaire one more time, respecting the same characteristics of the other two tests.

The time spent by the elderly in order to answer the questionnaire during the three collections was measured and used in the presentation of results (mean and standard deviations).

Statistical Analysis

The descriptive analysis was performed for the sample characterization, and mean, SD, and percentages were calculated for the studied variables.

The variables studied by the Br-MPQ were: Localization and Degree of pain, Circumstances of the Start of the Pain, Temporal Pattern of the Pain, Total Number of Pain Descriptors, Sensory, Affective, Subjective, Mixed and Total Pain Classification Index, and Pain Intensity. To investigate the intra- and interexaminer reliability index, Spearman's correlation Coefficient was used for continuous variables and Kappa index for ordinal variables.

Results

Descriptive Analysis of the Sample

Thirty-eight elderly individuals from the community, who did not have cognitive alterations and presented chronic pain due to orthopedic (n=19) and neurological (n=19) diseases were selected for the study. The medical diagnosis of osteoarthritis was given to 78.95% (n=16) of the study population with orthopedic diseases, with 57.89% (n=11) of them having the lower limbs affected, 26.32% (n=5) the spinal column and 15.79% (n=3) presenting upper limb tendonitis. Among the elderly with pain due to neurological diseases, 63.21% (n=10) had a central nervous injury, such as Parkinson's disease, 26.32% (n=5), sensorimotor stroke, 21.05% (n=4) and spinal cord injury 5.23% (n=1). Seven individuals (18.42%) were males and 31 were females (81.58%), and mean age was 70.50 ± 6.45 years. The mean educational status was 6.76 ± 4.92 years of formal education and these elderly individuals reported chronic pain for 63.20 ± 88.90 months.

Overall, the elderly assessed used a mean of 3.16 ± 2.80 different drugs, had undergone a different approach rather than therapeutic drugs (1.40 ± 1.00) for painful symptoms and had 7.00 ± 1.91 hours of sleep per night. These data are shown in Table 1, which presents a comparative analysis of the descriptive variables presented by the elderly population with chronic pain of orthopedic and neurological origin.

Table 1
Descriptive and comparative analysis of the social-demographic and clinical aspects presented by the elderly population with chronic pain of orthopedic and neurological origin.

	Orthopedic	Neurological	Overall	P
Age	71,21 ± 7,51	69,79 ± 5,30	70,50 ± 6,45	0,549
Educational background	6,53 ± 4,8	7,00 ± 5,15	6,76 ± 4,92	0,768
Drugs in use (number)	2,79 ± 2,86	3,53 ± 2,76	3,16 ± 2,8	0,359
Sites of pain (number)	2,79 ± 4,58	9,32 ± 6,62	6,05 ± 6,56	0,001
Time of Br-MPQ application(minutes)	8,57 ± 2,22	8,51 ± 2,48	8,54 ± 2,32	0,651
Hours of sleep per night	7,29 ± 2,28	6,71 ± 1,45	7,00 ± 1,91	0,098
MMSE	26,50 ± 2,46	26,50 ± 2,46	26,50 ± 2,49	> 0,05
Years of formal education	6,53 ± 4,8	7,00 ± 5,15	6,76 ± 4,92	0,768
Pain duration (months)	74,50 ± 114,60	51,60 ± 53,20	63,20 ± 88,90	0,218
Non-drug therapies	1,62 ± 1,33	1,18 ± 0,32	1,40 ± 1,00	>0,05

Br-MPQ – Brazilian version of the McGill questionnaire; MMSE – Mini Mental State Examination test

According to the results depicted in this Table, the elderly with neurological diseases reported 9.32 ± 6.62 painful sites, which differed significantly (p=0,001) from the number of painful sites in those with orthopedic diseases, with 2.79 ± 4.58 sites. The mean time taken by the elderly to answer the Br-MPQ was 8.54 ± 2.32 minutes.

Table 2 presents the data regarding the intensity of pain reported by the elderly during data collection. According to these data, most of the elderly individuals classified the pain as being absent (26.32%, N=10) and mild (47.37%, N= 18).

Table 2
Comparative analysis of pain intensity presented by the elderly with chronic pain of orthopedic and neurological origin.

Pain intensity	Orthopedic		Neurological	
	N	%	N	%
No pain	8	42,11	2	10,53
Mild	7	36,84	11	57,89
Moderate	3	15,79	4	21,05
Strong	0	0	2	10,53
Severe	0	0	0	0
Unbearable	1	5,26	0	0

Intra and interexaminer reliability of Br-MPQ

As shown in Table 3, it can be observed that when the Br-MPQ is applied to the elderly population with pain of neurological origin, the overall intra- and interexaminer reliability was 0.71 and 0.68, respectively, being considered “good”³³.

The design of the Br-MPQ has some items for which Spearman’s nonparametric coefficient would not be the best alternative for statistical analysis. The variable “temporal pattern of pain” is a nominal variable, where there is no scale of measurement (levels among the responses). The values 1, 2 and 3 for this variable are only symbolic, with no sense of ordination, i.e., the number one does not represent a better or worse response than answer 2 or 3, and therefore, the use of a reliability statistical analysis for a categorical variable would be the most adequate. Hence, the Kappa statistical analysis was used for the variable “temporal pattern of pain”. When the statistical analysis was carried out, the intra-examiner reliability was 0.90, indicating that the use of this statistical test would result in an “almost perfect” classification. When the interexaminer reliability was assessed by Kappa, it was 0.82, indicating an “almost perfect” classification³³.

Therefore, in the general context, the intra- and interexaminer reliability in the assessment of chronic pain in elderly individuals with neurological diseases through the Br-MPQ was considered to be good, according to the described criteria.

Table 4 shows that, when the Br-MPQ was applied to elderly individuals with chronic pain due to orthopedic diseases, the intra-examiner reliability was 0.86, being considered “almost perfect”³³. The Sensory Pain Classification Index alone presented a low reliability when compared to the other items.

Table 4 shows that the overall inter-examiner reliability was 0.89, also being considered “almost perfect” (Spearman, $p < 0.05$).

The “temporal pattern of pain” was reassessed by Kappa index.

Table 4
Intra- and interexaminer reliability of the Br-MPQ items for individuals with orthopedic diseases measured by Spearman’s coefficient.

Items	Spearman's Coefficient	
	Intra	Inter
Number of words chosen	0,82*	0,96*
Sensory pain classification index	0,65**	0,77**
Affective pain classification index	0,97*	0,92*
Subjective pain classification index	0,96*	0,95*
Mixed pain classification index	0,68**	0,69**
Total pain classification index	0,82*	0,97*
Intensity of pain presented	0,84*	0,88*
Max. intensity of pain	0,92*	0,97*
Min. intensity of pain	0,88*	0,79**
Intensity of toothache	0,90*	0,81*
Intensity of stomachache	0,98*	0,99*
Overall	0,86*	0,89*

When this statistical analysis was carried out, the intra-examiner and interexaminer reliability was found to be 0.83 and 0.92 respectively, indicating a reliability that was considered to be “almost perfect”³³.

The overall intra and interexaminer reliability of the Br-MPQ in the assessment of elderly individuals with chronic pain due to orthopedic diseases can be considered “almost perfect” in a general assessment, according to the criteria mentioned above.

These results suggest that the Br-MPQ presents a higher reliability when applied to elderly individuals with chronic pain due to orthopedic diseases than in those with neurological diseases.

Discussion

Chronic pain is a difficult symptom to be assessed as it is a subjective experience and because it undergoes the influence of several factors, including environmental, emotional, behavioral, and social ones³⁴.

Although the elderly individuals in the study presented impairment of different structures (orthopedic and neurological) it can be observed, through the analysis of the descriptive and comparative data, that the groups were homogenous and did not present significant differences regarding age, educational background, cognitive state, number of medications used, hours of sleep and marital status, which are variables that can interfere with the Br-MPQ results. The difficulty to understand the MPQ descriptors is more related to the level of educational background and cognitive impairment than to the age of the studied population^{25,35}.

Regarding the time spent for the application of the Br-MPQ, the time necessary for its application in young individuals by experienced examiners varies from 5 to 10 minutes³¹. Considering that the mean time spent by the elderly to answer the questionnaire was

Table 3
Intra- and interexaminer reliability of the Br-MPQ items for individuals with neurological diseases measured by Spearman’s coefficient.

Items	Spearman's Coefficient	
	Intra	Inter
Number of words chosen	0,91*	0,71**
Sensory pain classification index	0,89*	0,76**
Affective pain classification index	0,76**	0,90*
Subjective pain classification index	0,25****	0,60**
Mixed pain classification index	0,61**	0,49***
Total pain classification index	0,93*	0,83*
Intensity of pain presented	0,41****	0,44****
Max. intensity of pain	0,42****	0,46****
Min. intensity of pain	0,86*	0,60**
Intensity of toothache	0,94*	0,91*
Intensity of stomachache	0,65**	0,64**
Overall	0,71**	0,68**

8.57 ± 2.32 min, it can be suggested that this clinical demographic profile of the sample seems to have contributed to the adequate performance of the elderly at the Br-MPQ.

Mean sleep hours among the elderly population in the present study was considered normal (7.00 ± 1.91), showing that in this population, the painful symptoms did not influence sleep. Possibly, the use of pain-killers, anti-depressives, and other therapeutic approaches might have contributed to sleep induction in these individuals^{36,37}.

For an adequate pain treatment to be carried out, it is necessary to have appropriate assessment methods. Most pain assessment tools are one-dimensional measurements of intensity. The most commonly used instrument is the Visual Analogical Scale (VAS), a 10 cm-line with descriptors of intensity in its extremities such as "no pain" and "worst pain possible"²³. For young individuals, this scale has a high index of validity and reliability²⁴; however, the aging process is related to the increase of incorrect answers at the VAS²⁴. Another tool used in clinical practice is the Verbal Descriptor Scale (VDS). This tool has verbal descriptors placed along a line. In a study with the elderly, around 40% of these individuals reported that VDS is easier and describes more accurately their pain, as this population prefers to denominate their pain instead of identifying it through numbers²⁴. The use of a vertical scale would be more appropriate for the elderly due to the better perception of the descriptors placed in this fashion, demonstrating the crescent characteristic of the scale²⁵.

The results obtained in the present study regarding the pain intensity scale, which is one of the items comprising the Br-MPQ, show that this scale presents good intra and interexaminer reliability for the elderly with no cognitive alterations with chronic pain due to orthopedic and neurological diseases, and that it can be used to assess pain intensity in this population.

According to the analysis of data, it can be observed that, when the item of the questionnaire that refers to Pain Intensity is analyzed in separate, it does not present significant differences between the two groups of elderly individuals assessed. Most of the elderly individuals in the study groups reported, for this item, that the pain intensity was mild (47.36%, N=18). These data, when considered alone, can suggest that, according to the literature reviewed³⁷, a high degree of painful symptom control by the elderly, indicating good adaptation to chronic pain. However, our study did not have a control group with young individuals, so that the findings could be justified. Nevertheless, when the Total Pain Classification Index of the Br-MPQ is analyzed, one can observe that the mean value is high, suggesting that the elderly are more reluctant to report pain intensity, by erroneously considering that pain is part of the aging process²⁵. These findings make us infer that the elderly population assessed can underestimate the pain when a scale of intensity is used alone. Inadequate reports can generate health problems due to the difficulty in identifying symptoms and, consequently, establishing the therapeutic approach^{38,39}. A one-dimensional scale assesses only one element of the pain experience, that is, intensity. Multi-dimensional measures, such as the Br-MPQ, provide a better understanding of the individual's pain, as the elderly find it more

difficult to consider their pain as being more intense, leading these individuals to choose lower levels of pain at intensity measurements, underestimating the symptom. The use of a multi-dimensional scale in the elderly allows a more adequate assessment of pain, as there are other qualitative alterations regarding the pain and age and not only the pain intensity²⁵.

The Br-MPQ data suggest that elderly individuals with neurological diseases find it more difficult to define their pain. Sensory and affective factors had a higher influence on the perception of pain in these individuals. When the reliability of the Sensory Pain Classification Index was assessed, it showed to be almost perfect, demonstrating the importance of this category to qualify pain in this specific elderly group. It is noteworthy that the sensory characteristics of pain are the main criteria to define the presence of neuropathic pain^{40,41}. There are several mechanisms to develop neuropathic pain, such as direct stimulation of the sensitive neurons by compression or chemical irritation, by nervous injury or deafferenting and maintenance of pain by constant sympathetic stimulation⁴²⁻⁴⁴. Additionally, the Affective Pain Classification Index also showed good reliability. This category consists of words related to the individual's emotional state, and can translate the perception of tiredness, the feeling of fear and punishment and autonomic reactions. These data confirm the idea that individuals with neuropathic pain present emotional factors related to the perception of this symptom⁴¹.

Regarding the Subjective Pain Classification Index, which is part of the Br-MPQ, the elderly with neurological diseases presented a moderate interexaminer reliability and regular intra-examiner reliability. This index assesses the importance of the global subjective discomfort generated by the presence of pain, in perceptual as well as reactive terms, referring to the individual's self-evaluation of pain. Additionally, these individuals presented a regular intra- and interexaminer reliability for the Maximum and Present intensity of Pain score. These findings suggest that the elderly with neurological diseases find it difficult to describe their pain when a quantitative scale of intensity is used.

In the present study, individuals with neurological diseases presented more difficulties to quantify the overall perception of pain. This can be due to the fact that elderly individuals with neurological diseases refer more painful sites than those with orthopedic diseases, making it difficult to characterize the overall pain⁴⁵.

The Mixed Pain Classification Index comprises four subclasses, including the association between movement and presence of pain, sensory, emotional and temperature components³¹. For this classification, the elderly with neurological diseases presented a good reliability. One of the reasons that justify this fact is that this index undergoes the interference of sensory and affective components, as it consists of an association among other subclasses. Additionally, the first subclass corresponds to the association between pain and movement. Elderly individuals with neurological diseases did not report pain as the only probable cause of movement restrictions, but included other factors such as paresthesias and paresis, which can limit movement and might have influenced the questionnaire responses.

The MPQ is an international tool used in clinical practice²⁵⁻³⁰.

There is ample evidence of the MPQ validity, reliability and discriminatory capacity when used in young adults^{27,28}. The reviewed literature reports that the MPQ can be a complex tool and is time-consuming when applied to the elderly population⁴⁶. These authors have stated that, even in the absence of cognitive alterations, the older the patient is, the larger the difficulties to understand some of the descriptors are, and that the elderly can get confused by the large number of choices.

Additionally, this specific population can have other words that better describe their pain, which are not included in the MPQ, considering their life experience in cultural and social terms along the decades.

The physiological aging process, the senescence, also influences the locus of pain control and, consequently, the expression of its manifestation⁴⁷. The perception of the pain control locus is based on a construct created to explain people's perception of who or what controls their lives⁴⁷. The construct basically defines 2 loci in which the individual can preferentially perceive the control of his or her pain: internal body events, which can be altered with aging, by the experiences or by the emotional alterations of senescence, and the external, which can be random (bad luck, good luck, fate) or powerful people (health professionals, family members)⁴⁷. Our sample consisted of elderly individuals with a diagnosis of chronic orthopedic and neurological diseases, thus it is expected that such dysfunctions influenced in the pain expression control.

The Br-MPQ, as well as the guidelines for its application, was the subject of a Master's Dissertation in neurolinguistics³¹, an area of knowledge that deals specifically with linguistic adaptations and the components involved in all presented contexts. Therefore, the version of the questionnaire proposed by this author seemed to contemplate the assessed target-population more adequately.

According to the present study, elderly individuals who live in community, and have no cognitive alterations did not present difficulties in answering the Br-MPQ, and did not show doubts regarding its descriptors. Additionally, its application did not take very long, confirming the fact that the questionnaire is easy to apply and is adequate for the studied population. The possible difficulties presented during the application of the Br-MPQ⁴⁶ are more directly related to the educational level, cognitive or verbal impairment and not to age²⁵, as the MPQ presents reliability when applied to 12-year-old children²⁵ and, as suggested by the present study, when applied to elderly without cognitive alterations.

Conclusion

The present study demonstrated that the Br-MPQ is an instrument that can be applied to the sample studied. Additionally, the instrument presented an "almost perfect" intra and interexaminer reliability for elderly individuals with orthopedic diseases and "good" reliability for those with neurological diseases.

The Br-MPQ was able to provide information on the different perceptions of several domains that integrate the pain system in individuals with diverse diseases, as the perception of this symptom is related to the sensorial, affective and motivational aspects, and not only to its intensity. Thus, the instrument allows the adequate

assessment of different pain traits, enabling the healthcare professional to better understand the symptom and consequently, to create a specific treatment program.

The study suggests that the Br-MPQ can be used in clinical practice, assisting in the assessment of pain perception in non-institutionalized elderly individuals with chronic pain of orthopedic and neurological origin without cognitive alterations.

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