Adapted Version of the McGill Pain Questionnaire to Brazilian Portuguese

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The purpose of this study was to present a translated version of the McGill Pain Questionnaire to Brazilian Portuguese that adapted the original pain descriptors according to the Brazilian culture, aiming at its scientific validation. Initially, the original questionnaire was translated by 3 legally recognized translators fluent in English and in Brazilian Portuguese. The translations were meticulously assessed by 5 health professionals (3 dentists, 1 physician and 1 medical student) who were asked to choose the best translation for each pain descriptor of the original questionnaire in English. The resulting questionnaire was applied to 80 subjects (20 professors, 20 dental students, 20 employees and 20 patients, all related to the School of Dentistry of Ribeirão Preto, University of São Paulo). After some adjustments to improve the understanding of the pain descriptors, an adaptation of the intensity values of each pain descriptor was done by 20 postgraduate dental students and 20 undergraduate dental students, who were asked to record, for each word, the pain intensity value based on their personal opinion. In addition, they were asked to fill out the final version of the questionnaire to identify any doubts. The McGill Pain Questionnaire proved to be a very useful tool for measuring pain, and its version in Brazilian Portuguese was validated to be used as an important diagnostic resource.

Key Words: pain measurement, McGill Pain Questionnaire, Brazilian Portuguese, cross-cultural adaptation.

INTRODUCTION

The word “pain” is defined as “an unpleasant sensorial and emotional experience associated with actual or potential tissue damage or described in terms of such damage” (1). Therefore, pain is not just sensations perceived by sensorial organs because it also affects the person’s emotional, social, family, professional and physical skills (2). Pain relief is certainly one of the main reasons that lead people seek medical treatment (3). Nearly 60% of the Brazilian population suffers from chronic pain (4), which is a persistent pain that has been present for 6 months or more (5). This kind of pain appears in different ways, ranging from a discomfort that manifests occasionally to an unbearable, constant and irritating pain that interfere with one’s mood, sleep quality, working activity and appetite (4).

Pain measurement in human beings is essential to assess pain control methods. However, quantifying the pain has been a problem for investigators and clinicians because several tools have found great difficulties in performing a correct assessment (6,7).

Currently, it became clear that the word “pain” is related to a variety of sensorial qualities categorized in a same linguistic label, and not a unique and specific sensation that varies just in intensity. Although studies regarding clinical pain are quite important, severe limitations have been imposed by the available measurement tools because they assess pain as a specific sensorial quality that varies only in intensity (6).

The most important requirement in pain measurement is that it should be valid, reliable and consistent and, above all, useful. Therefore, the McGill Pain Questionnaire (MPQ) seems to fulfill all these requirements in addition to being a fast way to measure the subjective pain experience. It allows the assessment of sensorial, affective and evaluative qualities related to painful process, and it is able to measure several qualities...
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of pain (8). This tool has been developed by Melzack (6) at the University of McGill, in Canada, in 1975, and has become one of most used tool for measuring pain (9).

Over the last decade, the MPQ has been translated into several languages like Finnish (10), Italian (11), German (12), Dutch (13) and Norwegian (14). However, it would be convenient if people in different countries, with different cultures, could use the same words to describe pain. The adaptation of MPQ to other languages raises several issues. The main difficulty is that pain descriptors have semantic connotations specific to a particular sociocultural context. A simple translation can hardly express all the semantic nuances of the original pain descriptors (15). Developing a MPQ version by simply translating the words seems unrealistic. Adapted versions of the original MPQ may provide acceptable solutions considering semantics and different patient groups (16). The purpose of this study was to present a translated version of the McGill Pain Questionnaire to Brazilian Portuguese that adapts the original pain descriptors according to the Brazilian culture aiming at its scientific validation.

MATERIAL AND METHODS

Based on Melzack’s MPQ (6), 4 stages (translation, back translation, adaptation and application) were accomplished to obtain a translated and adapted Brazilian Portuguese version of the McGill Pain Questionnaire. This study used a translation-based methodology with cross-cultural adaptation. The first 2 stages followed a model used by Kim et al (9); the third stage was performed according to the Melzack and Torgerson model (17); and the forth stage was performed following the Pimenta and Teixeira model (18).

Translation

The original MPQ was translated by 3 experts in scientific paper translation, proficient in Brazilian Portuguese and English. Each of them prepared 1 translation. A previously translated Portuguese version (18) was added to the other three. All four Portuguese MPQ versions were submitted to 5 health professionals (3 dentists, 1 physician and 1 medical student) fluent in Portuguese and English, who chose the best translation of each pain descriptor. The most often marked words (at least 3 times) were included in the initial Portuguese version that was forward to back translation.

Back Translation

The back translation (Portuguese to English) was done by a legally recognized translator and compared to the original MPQ in English to check the accuracy. Non-coinciding words considered as properly translated and suitable were maintained in the initial version of the questionnaire.

Adaptation

In this stage, the words were adjusted to usual Brazilian Portuguese vocabulary and the intensity values of the pain descriptors were adapted to the Brazilian culture. Eighty pain subjects of different ages, genders and social/educational levels participated in this stage. A total of 20 teachers, 20 graduate students, 20 employees and 20 patients (treated at the Integrated Clinic discipline) belonging to the School of Dentistry of Ribeirão Preto filled out the Portuguese version of the questionnaire and were instructed to take a note of all doubtful words. They followed the original MPQ instructions (6), choosing just one word per group that was intimately related to their pain at that moment. If no word was deemed appropriate, they should go to next group. All subjects signed a written informed consent form approved by the local Ethics in Research Committee authorizing their participation in the study.

Additionally, an adaptation of the intensity values of each pain descriptor was done. The intensity graduation of each descriptor was given by a numeric 5-point scale (from 1 to 5). A list of all MPQ pain descriptors was applied to 20 postgraduate dental students from the School of Dentistry of Ribeirão Preto and 20 graduate dental students from the University of Franca, who were asked to record, for each word, the pain intensity value based on their personal opinion.

Application

The final Brazilian Portuguese version of the MPQ was then applied to the 20 postgraduate and 20 graduate dental students in order to detect any doubts regarding the meaning of the pain descriptors, as well as the instructions on how to fill out the questionnaire.

RESULTS

Translation

The 3 preliminary translations were sent to 5 health professionals who chose the best Portuguese
translation of each pain descriptor. A total of 69 out of 78 pain descriptors were selected to be included in the initial Portuguese version of the questionnaire for being chosen by 3 or more examiners. The translations of the 9 remaining pain descriptors were selected by consensus between the investigators, taking into account the characteristics of the group they belonged to and how often patients used them to describe pain.

**Back Translation**

The back translation of the initial Portuguese MPQ was done by a legally recognized translator and was compared to the original version in English. From 78 translated pain descriptors, 65 were coincident or synonyms to the original pain descriptors. The other 13 translated pain descriptors were adapted by the investigators according to the same criteria described above for the Translation stage. The words “pulsing” and “beating” had the same translation to Portuguese. Thus, one word was discarded and the number of pain descriptors was reduced to 77, one less than the original English MPQ. Once this stage was completed, a second version of the Brazilian Portuguese MPQ was obtained.

**Adaptation**

The subjects spent about 5 min to fill the questionnaire out. All questionnaires were correctly filled out and no difficulties were reported. When they were asked about doubts regarding the meaning of the descriptors, some of them reported that they did not understand the meaning of some words: 1) “em pontada”, 2) “maçante”, 3) “pressão”, 4) “arrebatadora”, 5) “cauterizante”, 6) “bobã”, 7) “raspante”, 8) “de rachar”, 9) “pavorosa”, 10) “extenuante”, 11) “de matar”, 12) “desprezível”, 13) “em agulhada”, 14) “tremenda”, 15) “agonizante” and 16) “terrível”. These were replaced by synonyms frequently used by patients, while keeping all MPQ’s group characteristics.

The new descriptors were resubmitted to the same subjects in order to check whether there were any persistent doubts, and all of them reported to have no more doubts. Thereafter, a new version, considered the final version, was obtained. The intensity values for each descriptor were estimated as means and standard deviations (Fig. 1).

The original and the final translated/adapted versions of the McGill Pain Questionnaire are shown on Figures 2 and 3, respectively.

**Application**

The final version of the MPQ was correctly filled out by the 40 subjects. After the final application, there were no difficulties to fill out the questionnaire or to understand the meaning of pain descriptors.
Figure 2. Original McGill Pain Questionnaire proposed by Ronald Melzack (6).
Figure 3. Final version of the Brazilian Portuguese McGill Questionnaire.
DISCUSSION

This study presented a translated and adapted version of the McGill Pain Questionnaire to Brazilian Portuguese. Although there was a pre-existing Portuguese version, our methodology includes a cross-cultural adaptation stage in order to adapt the translated words and the intensity of the pain descriptors to the Brazilian culture. We have chosen a translation-based methodology (11,12,19), instead of a reconstruction-based methodology (10) because our goal was to keep the original structure of the MPQ, and not to create a new questionnaire.

Translating isolated words, out of the context of a sentence, is a complex task as well as the translation of some pain descriptors arranged in a list. Some words in different sentences have different meanings. However, all professionals responsible for the translation were guided by the information that all those words were expressing “types” of pain.

Although 9 out of 78 translated words were not selected by at least 3 of the 5 health professionals, clinical experience of the researchers responsible for this study has guided the choice of those terms often used by the patients and that better expressed painful sensations. With the translation in hands, the descriptors were compared to their original version. Although it was desirable to have a total coincidence between the version proposed by Melzack (6) and the back translation, synonyms were considered equivalents.

Those words that were not coincident were adapted to keep the same meaning of those ones present in the English version of the questionnaire. The authors believe that the selection of the best translations of those 9 words by the researchers did not alter MPQ’s capability for measuring pain because it was done according to the descriptor’s original group characteristics. In addition, adaptation of intensity values to all pain descriptors in Portuguese allows a correct measurement of painful processes. Therefore, even if the words in Portuguese selected by the researchers did not have exactly the same meaning of the original pain descriptors, they certainly belonged to the same group and had an intensity value according to the Brazilian culture.

In an article published in the BBC Brasil website (www.bbcbrasil.com) in 2004 (20), the English company “Today Translation”, specialized in translations, listed the 10 most difficult words to translate. According to the company director, Jurga Ziliskiene, a translator’s greatest challenge is to reflect with other terms, the local culture references that original words carry: “probably you can search in a dictionary and find the meaning, but, most important than that are cultural experiences and cultural emphasis of the words.”

Therefore, in different stages of this study, adaptations were done. During the back translation stage, an adjustment was performed by the investigators because they had knowledge in the health field, were experienced in the treatment of patients that suffer from pain and were fluent in Brazilian Portuguese and in English. During this stage, it was verified that two of the original questionnaire (“pulsing” and “beating”) received the same translation into Portuguese. It was decided to suppress one of them (beating) because no proper translation to Portuguese was found to distinguish them without changing their meanings. Therefore, the final Portuguese version of the MPQ was shorter (77 pain descriptors). However, it does not compromise the structure of the questionnaire or its evaluative and discriminative capability. Other versions of the MPQ translated to different languages also have a non-coincident number of pain descriptors (15,16).

The time spent to fill out the MPQ is fairly acceptable for most studies on pain. The volunteers filled out the questionnaire correctly and did not demonstrate difficulties to do so because they had been previously instructed, as recommended by Melzack (6). During the first application of the MPQ, some subjects mentioned not to know the meaning of some words. Therefore, a new version was prepared by the investigators after replacing the doubtful words by more frequently used synonyms. No doubts remained.

According to Boureau et al. (15) and Strand and Ljunggren (16), the development of a valid version of MPQ based on a simple translation of words does not seem to be realistic. These authors point out that adapted versions of the original questionnaire can represent an acceptable solution considering the semantics, as well as different groups of patients.

Although it was expected that most doubts about the meaning of the words would come from patients treated at the university because most of them had a lower educational level than the others, it was not the rule. Perhaps because the Dental School students and employees were more close to the investigators, they felt more comfortable to ask them about their doubts.
related to the meaning of the pain descriptors. In spite of being clearly stated in the consent form that no one would be exposed to any kind of embarrassment, it is possible that the patients felt embarrassed to reveal their doubts to a stranger.

The adjustment of the intensity of the pain descriptors was important to formulate a version of the MPQ adapted to our culture. Some difficulties to find words in Portuguese that could represent the exact meaning of those in English and, consequently, the need of an adaptation using similar terms confirmed the need of adjustments of intensity values.

Some pain descriptors can present different intensities for subjects from different cultures. Thus, a cross-cultural adaptation is actually necessary, even for countries that speak the same language, but have different cultures, to avoid erroneous assessment of people’s painful processes (15,16).

In the present study, descriptor intensity adjustments were done using a numeric 5-point scale (from 1 to 5) (17,19). Strand and Wisnes (14) used a visual analogue scale (VAS) instead of a numeric scale. However, the VAS can underestimate some kinds of pain, mainly low-intensity pain (3). Therefore, values can be erroneously given to some descriptors, compromising the cultural adjustment and, consequently, leading to wrong pain assessments using the MPQ.

The correct filling out of the final Brazilian Portuguese version of the questionnaire by the subjects involved in the application stage proved that the instructions were correctly understood. The final version of the MPQ did not generate any doubts regarding the meaning of the descriptors. Therefore, any other adaptation of terms in Portuguese was not necessary. Those adaptations were essential because the understanding of all descriptors is crucial for correct pain assessment.

When the version proposed by Pimenta and Teixeira (18) was compared to that reported in the present study, 26 descriptors were coincident in both questionnaires. However, different methods to obtain the Brazilian Portuguese version of the MPQ were used. The application of the translated McGill Pain Questionnaire on a large number of subjects, all adaptations performed, as well as the stage to quantify the intensity of each descriptor prove the higher complexity of this study aiming at a cross-cultural adaptation, minimizing biases and trends.

In conclusion, although some terms in English did not have equivalent descriptors in Portuguese, cross-cultural adjustments have proven to be a valid and efficient alternative to overcome this difficulty, which has been confirmed by the application of the final version of the questionnaire. Adaptations to the local culture are essential for a correct assessment of painful processes.

RESUMO

O objetivo deste estudo foi traduzir e adaptar o McGill Pain Questionnaire para a Língua Portuguesa falada no Brasil, visando sua validação científica. Inicialmente o questionário original foi traduzido por três tradutores juramentados, fluentes em Inglês e Português falado no Brasil. Estas três traduções foram meticulosamente analisadas por cinco profissionais da saúde (três cirurgiões-dentistas, um médico e um estudante de medicina), que selecionaram para cada descritor de dor, a tradução que melhor correspondia com o termo original em Inglês. O questionário resultante foi então aplicado a 80 sujeitos (20 professores, 20 graduandos, 20 funcionários e 20 pacientes, todos ligados à Faculdade de Odontologia de Ribeirão Preto – USP). Após adaptações visando um melhor entendimento dos descritores de dor, uma adaptação dos valores de intensidade de cada descritor de dor foi feita por 20 pós-graduandos e 20 graduandos em Odontologia, os quais foram solicitados a registrar a intensidade da dor para cada um dos descritores, com base na sua opinião pessoal. Além disso, eles preencheram a versão final do questionário traduzido a fim de identificar a consistência de possíveis dúvidas. O McGill Pain Questionnaire se mostrou um instrumento bastante útil na mensuração da dor, e a sua tradução e adaptação o tornou válido para sua utilização como instrumento de mensuração da dor em Português.

REFERENCES


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