

CATEGORIZATION OF POSTOPERATIVE PAIN DESCRIPTORS IN THE SENSITIVE, AFFECTIVE AND EVALUATIVE DIMENSIONS OF PAINFUL EXPERIENCES

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The main purpose of this study was categorizing 20 descriptors of post-operative pain sensory, affective and evaluative dimensions. Sixty-one physicians participated. They were between 24 and 63 years old and categorized 20 descriptors by considering their level of attribution in the description of post-operative pain sensory, affective and evaluative qualities. The categorization showed that the most frequently attributed descriptors of sensitive pain qualities were: lacerating, unbearable, fulminating, intense and deep; and, for the affective qualities: hallucinating, annihilating, maddening, despairing, inhuman, blinding, terrible, monstrous and dreadful; whereas for the evaluative qualities, they were: unbearable, strong, intense and violent. The most frequently attributed descriptors in the description of post-operative pain are those mostly judged adequate to describe the affective qualities of this experience.

DESCRIPTORS: pain, postoperative; methods; subject headings; pain measurement

CATEGORIZACIÓN DE LOS DESCRIPTORES DEL DOLOR POSTOPERATORIO EN LAS DIMENSIONES SENSORIAL, AFECTIVA Y EVALUADORA DE ESA EXPERIENCIA

El principal objetivo de este estudio fue caracterizar los 20 descriptores del dolor postoperatorio en las dimensiones sensorial, afectiva y evaluadora del dolor. Participaron 61 médicos, con edad entre 24 y 63 años, que caracterizaron 20 descriptores, considerando el grado de atribución de los mismos en la descripción de las calidades sensoriales, afectivas y evaluadoras del dolor. Los resultados mostraron que, entre los 20 descriptores juzgados por los médicos, la categorización mostró que los de mayor atribución en la descripción de las calidades sensoriales del dolor fueron: dilacerante, insufrible, fulminando, intenso profundo; de las calidades afectivas fueron: alucinando, aniquilador, enloquecedor, desesperador, desumano, deslumbrando, terrible, monstruoso y pavoroso, y de las calidades evaluadoras: insufrible, fuerte, intenso y violento. Los descriptores de mayor atribución en la descripción del dolor postoperatorio describen, en su mayoría, calidades afectivas de esa experiencia.

DESCRIPTORES: dolor postoperatorio; método; descriptores; dimensión del dolor

CATEGORIZAÇÃO DE DESCRITORES DA DOR PÓS-OPERATÓRIA NAS DIMENSÕES SENSITIVA, AFETIVA E AVALIATIVA DA EXPERIÊNCIA DOLOROSA

O objetivo do estudo foi categorizar 20 descritores da dor pós-operatória, considerando a adequação deles para descrever a experiência dolorosa em suas dimensões sensitiva, afetiva e avaliativa. Participaram 61 cirurgiões e anestesiologistas, de ambos os sexos, com idades de 24 a 63 anos, os quais julgaram os descritores pelo método de Estimativa de Categorias, utilizando Escala Numérica de 7 pontos. Os descritores julgados como os mais adequados para descrever a dor pós-operatória na dimensão sensitiva, considerando a mediana dos escores, foram: dilacerante, insuportável, fulminante, intensa e profunda; na dimensão afetiva foram: alucinante, aniquiladora, enloquecedora, desesperadora, desumana, que cega, terrível, monstruosa e pavorosa e aqueles com maior mediana na dimensão avaliativa: insuportável, forte, intensa e violenta. Os descritores de maior atribuição na descrição da dor pós-operatória foram, em sua maioria, julgados como adequados para descrever a dimensão afetiva dessa experiência.

DESCRITORES: dor pós-operatória; métodos; descritores; medição da dor

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INTRODUCTION

Pain can be manifested in many ways. Potential expressions of painful states include: non-vocal expressions with postural alterations (cautious or unusual postures and inactivity), facial expressions (grimace, arched eyebrows and deep naso-labial folds), motor activity (friction or protection of the sore area, startle) and autonomic activities (paleness, flush, sweatiness); and vocal expressions like paralinguistic manifestations (cries, moans, screams and sighs) and *language* (pleas, exclamations, qualitative descriptions, complaints and appeals)⁽¹⁾.

Through *language*, one can verbally express specific qualities of each painful sensation, which differ from each other, like in the case of dysmenorrhea, which is characterized by the sensation of *pressure* and *cramps*; gastric pain, by *heartburn*; rheumatic pain, by the sensation of something *chewing*, *bothering*; cephalgia, which has qualities expressed by *cracking* and like a *punch*.

Pain is not a specific sensitive quality that varies only in intensity, but rather an infinite range of qualities under a single linguistic label - pain. A systemized study was developed, focusing on words used in the clinical routine to describe pain⁽²⁾.

Supported by studies⁽³⁾ that appoint the *sensitive-discriminative*, *affective-motivational* and *cognitive-evaluative* dimensions of pain, some authors⁽²⁾ have argued that words denominated *pain descriptors* could represent such dimensions, turning them essential in the elaboration of instruments to measure this experience.

From a list of 44 words compiled in 1939⁽²⁾, 102 descriptors were selected and categorized in three dimensions: - the *sensitive*, referring to the temporal, spatial, pressure, tension, puncture, thermo and vividness characteristics of the pain, determined by the activity of spinal fibers (systems) that rapidly conduct the nociceptive stimulus (example: pulsating, tearing, cutting, piercing, cramps, burning, among others); the *affective-motivational* - which is translated by feelings of tiredness, fear, punishment, autonomic reactions, due to activities in the limbic system (cruel, cursed, terrifying, suffocating and frightening); and the *cognitive-evaluative* - which refers to the global evaluation of the situation experienced by the individual, strongly influenced by previous painful experiences (example: boring, unbearable, strong, crushing)^(2,4).

A study⁽²⁾ provided the bases for the elaboration of a multidimensional instrument, the McGill Pain Questionnaire (MPQ)⁽⁵⁾, which contains 78 *pain descriptors*, distributed in four large groups (sensitive, affective, evaluative and mixed) and 20 subgroups. Since its publication, we observe its significant use in the scientific area, aiming to characterize chronic and acute pain, evaluate analgesic techniques and discriminate several painful syndromes.

Its validity and reliability have been explored and supported by research, recognizing this questionnaire as the best instrument to evaluate the multidimensionality of pain so far. However, the MPQ presents limits in its application to different cultural groups, since the literal translation of the descriptors, originated in the English language, presents semantic problems. The language differences can be confounded with differences in the expression of pain, and the patient can be led to choose descriptors that are not very appropriate to describe the pain (s)he experienced, to the detriment of others more used in his(er) own language but absent from the presented list.

Arguing that words can be used in the elaboration of an ideal pain measure and that the verbal description of pain intensity and its qualities by the individual him/herself is relevant for the ideal measurement and evaluation of this experience, studies have been performed in Brazil⁽⁶⁻⁸⁾ to investigate the pain descriptors originated in the Portuguese language. The authors quantified 119 descriptors, using direct psychophysical methods of scaling, and selected more and less attributed words in the description of postoperative pain.

Therefore, considering that exploring the knowledge of the language used in the description of pain and comprehending what is being transmitted through this language is essential to advance in this area, this study was developed and aimed to categorize 20 descriptors of postoperative pain, selected in one study⁽⁸⁾, considering the appropriateness of each to describe the painful experience in the sensitive, affective and evaluative dimensions.

MATERIAL AND METHOD

This study was approved by the Ethics Committee at the University of São Paulo at Ribeirão

Preto Medical School *Hospital das Clinicas*, Process HCRP No 7481/98.

We performed an experiment for the categorization of 20 postoperative pain descriptors selected from a study⁽⁸⁾, in the three dimensions of the painful experience. A pilot study was performed with four participants, which were included in the sample.

Participants

A total of 61 surgeons and anesthesiologists, between 24 and 63 years old and 83.6% male participated in the study. All of them were unaware of the method used and had at least one year of experience with patients in the trans and postoperative period. All of them signed the free and informed consent term after receiving verbal and written clarifications about the research and its objective.

Material

A notebook was elaborated, containing specific instructions for the Estimation of Categories method on the first page and a list with the 20 descriptors of postoperative pain and its respective definitions on the following pages.

Procedure

The physicians were interviewed individually at the surgical center of a hospital in the interior of Minas Gerais, and in private medical offices in a city in the interior of São Paulo, Brazil. After receiving verbal and written orientations about the task to be performed, they started to judge the 20 descriptors by the Estimation of Categories method. Scores were attributed to each, considering its appropriateness to describe the painful experience in the sensitive, affective and evaluative dimensions, using a seven-point scale with numerical alternatives varying from one to seven. The participants were instructed to attribute a numerical value to each descriptor, which corresponded to the degree of appropriateness to describe each of the three dimensions of the postoperative pain. Score 1 (one) indicated the smaller degree of appropriateness, while score 7 (seven) indicated the highest degree a descriptor could receive in a certain dimension. Scores 2 (two), 3 (three), 4

(four), 5 (five) and 6 (six) represented intermediate levels of appropriateness of the descriptor to describe a certain dimension.

Analysis and statistics

Friedman's test was used and the values were expressed in median, minimum and maximum.

RESULTS AND DISCUSSION

As shown in Table 1, the descriptors that obtained the highest score medians in the sensitive dimension, attributed through the Numerical Scale, were: *tearing*, *annihilating*, *maddening*, *despairing*, *inhuman*, *blinding*, *terrible*, *monstrous* and *hair-raising*, while those with higher medians in the evaluative dimension were: *unbearable*, *strong*, *intense* and *violent*. The scores attributed to *tremendous* were expressed by Med=4 in the sensitive and evaluative dimensions, though the difference was not significant. *Brutal* had a higher median in the evaluative dimension, though not significant. *Colossal* and *crushing* were expressed by Med=4 in all dimensions, with p=0.7100 e 0.2650, respectively.

Table 1 - Descriptive behavior and comparative test results for each of the 20 descriptors regarding their sensitive, affective e evaluative dimensions

Descriptors	Sensitive			Affective			Evaluative			Value-p
	Min.	Med.	Max.	Min.	Med.	Max.	Min.	Med.	Max.	
Hallucinating	1	3	7	1	5	7	1	4	7	0.04*
Tearing	1	5	7	1	4	7	1	3	7	<0.0001*
Annihilating	1	2	7	1	5	7	1	3	7	0.0007*
Colossal	1	4	7	1	4	7	1	4	7	0.7100
Maddening	1	4	7	1	6	7	1	4	7	0.0006*
Brutal	1	4	7	1	4	7	1	5	7	0.7950
Despairing	1	4	7	1	6	7	1	4	7	<0.0001*
Crushing	1	4	7	1	4	7	1	4	7	0.2650
Inhuman	1	2	7	1	6	7	1	3	7	<0.0001*
Unbearable	1	6	7	1	4	7	1	6	7	0.0070*
Strong	1	5	7	1	3	7	1	6	7	0.0005*
Fulminating	1	6	7	1	3	7	1	5	7	0.0224*
Blinding	1	3	7	1	5	7	1	3	7	0.0005*
Intense	1	6	7	1	3	7	1	6	7	<0.0001*
Deep	1	5	7	1	4	7	1	4	7	0.0002*
Terrible	1	4	7	1	6	7	1	5	7	0.0020*
Tremendous	1	4	7	1	3	7	1	4	7	0.6880
Monstrous	1	4	7	1	5	7	1	4	7	0.0060*
Hair raising	1	3	7	1	6	7	1	3	7	<0.0001*
Violent	1	4	7	1	4	7	1	5	7	0.0060*

Med.: Score median; Min.: Minimum score; Max.: Maximum score; *: Significant difference (Friedmann's test)

The descriptors *unbearable* and *intense* presented Med=6 and significant differences for the sensitive and evaluative dimensions. According to scholars, the words categorized in the evaluative group suffer strong influence from the sensitive dimension, and can make subjects attribute estimative values to the same descriptor which are too similar in the two groupings⁽⁵⁾.

The evaluative grouping represents the evaluation of importance or urgency of the general situation. Such words reflect a judgment influenced by the affective and sensitive qualities, as well as by previous experiences, by the capacity to judge results and by the meaning of the situation that generated the nociceptive stimulus. As the circumstances in which one is experiencing a certain moment interfere in the choice of descriptors, such words position the painful experience in a multidimensional space for the one who experiences it, and it is the professionals' role to raise hypotheses about the choice of these descriptors, since they are indicating high magnitude and, consequently, inadequate relief of postoperative pain.

In a study⁽²⁾ in which university students, physicians and patients grouped 102 words in 3 large groups (sensitive, affective and evaluative) and 16 subgroups, we observed that, according to the translation proposed for Portuguese, the descriptors *maddening* and *terrible* were judged in the affective grouping, and *unbearable* and *strong* in the evaluative grouping.

The categorization of the remaining descriptors in the groupings was not discussed in relation to the results of other relevant studies^(2,5,9), because these are words used in the Brazilian culture, without a validated translation for other languages. In Brazil, there are no studies that investigated the categorization of descriptors in different dimensions of the painful experience, making data comparisons and discussion difficult.

In this experiment, from the 20 descriptors studied, seven were considered the most adequate to describe the sensitive or evaluative dimensions of the painful experience, according to the physicians' opinion, and nine for the affective dimension.

As seen before, the differences were not significant for *colossal*, *crushing*, *brutal* and

tremendous, which in the authors' opinion might have happened due to the subjects' difficulty to judge words that are not very common in the Brazilian culture.

The literature shows that, in other cultures, acute pain is described by a higher number of words from the sensitive grouping, though descriptors from the affective grouping emerge in the description of postoperative pain as chosen by a great percentage of patients^(10,13). In addition, the instrument used by the authors mentioned was the MPQ⁽⁵⁾, in which the descriptors are somewhat disproportional regarding the number of words in each grouping, 42 in the sensitive, 14 in the affective one and 5 (five) in the evaluative grouping, which can bias the results.

The judgment of the descriptors, considering their appropriateness to describe the painful experience in three dimensions, point to the need for new research, since the study of words' dimensions, in the Brazilian culture, is a fundamental issue for the development of instruments that allow for multidimensional measurement of postoperative pain.

CONCLUSION

After the evaluation of the 20 postoperative pain descriptors by the Estimation of Categories method, it could be concluded that:

- The most adequate descriptors to describe postoperative pain in the sensitive dimension, considering the score medians attributed through the numerical scale, were: *tearing*, *unbearable*, *fulminating*, *intense* and *deep*; the descriptors with higher score medians in the affective dimension were: *hallucinating*, *annihilating*, *maddening*, *despairing*, *inhuman*, *blinding*, *terrible*, *monstrous* and *hair-raising*, and those with higher medians in the evaluative dimension: *unbearable*, *strong*, *intense* and *violent*. All of them presented a significant difference ($p < 0.005$).
- The judgments of the descriptors *tremendous*, *brutal*, *colossal* and *crushing* did not present a significant difference.
- The most attributed descriptors in postoperative pain description were mostly judged as adequate to describe the affective dimension of this experience.

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