Research article

Evaluation and Measurement of Chronic Pain from Cancer

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Abstract

The general aim of this study was to evaluate chronic pain arising from different types of cancers. The study included 45 women with breast cancer, 45 men with prostate cancer and 60 individuals of both sexes with digestive system cancers. For the measurement of pain were used 50 descriptors of chronic pain comprised of the Multidimensional Pain Evaluation Scale (EMADOR), using the psychophysical method of category estimation. The characterization of pain was evident that for the primary tumor site 30% were located in the breast, prostate 30% and 14.7% in the stomach. The onset of pain complaint occurred in 40.7% of the participants before the disease diagnosis, 52.7% reported only one site of pain and 55.4% reported that it was intermittent. Pain intensity given in three samples, considering the arithmetic mean, showed that participants with tumors of the digestive system reported higher scores (7.58 ± 2.59) and 26.6% of this sample reported scores above average in 8 arithmetic mean of all the descriptors presented. In the evaluation of the descriptors was seen observed that among the 10 descriptors with higher scores, 5 were present in three samples: "painful," "uncomfortable", "boring," "unpleasant" and "incommode". We conclude that even though the cancer pain phenomenon is considered an individual, multidimensional impairment in several areas of life, their language has similarities regardless of tumor site and gender. The affective dimension of pain should be further explored in the clinical ratings.

Keywords: Cancer, pain, pain measurement, psychophysics

Introduction

Cancer is one of the leading causes of death worldwide. Beneficial advances in technology, diagnoses and treatments significantly increase life expectancy, but many people will suffer from cancer pain, either obtaining a cure for the disease or during the evolution to death where palliative care measures are adopted.

Palliative care emerged in the 1960s in the United Kingdom with the work of Cicely Saunders. The National Cancer Institute (INCA) provides that active treatment and palliative care are not mutually exclusive and proposes that palliative care be applied throughout the course of the disease, together with active cancer treatment, and gradually increase if a cure is not achieved. possible [1].

Saunders widely disseminated the concept of total pain in 1970, and cancer pain is considered "total" because it has consequences in all domains of life, whether physical, psychological, social, emotional or spiritual, that proximity of death can provide them [2]. For the measurement and assessment of pain, several assessment methods have been used, but there is no specific instrument model in our country to assess cancer pain [3].

In the scientific literature, we find several methods to assess and measure pain. They can be classified into unidimensional instruments, which quantify only the severity or intensity, and multidimensional, which seek to assess the different dimensions of pain from different response indicators [4].

Seeking an adequate pain assessment, Faleiros Sousa et al. [5]

identified and validated, through psychophysical methods, the Portuguese language descriptors that characterize chronic pain, considering the cultural differences in verbally expressing pain. To develop a multidimensional pain assessment instrument in the Portuguese language, subjectively and statistically validated, the authors created the Multidimensional Pain Assessment Scale (EMADOR).

The general objective of the study was to evaluate and measure the chronic pain perceived by clients with chronic pain from cancer of the digestive system, breast and prostate using EMADOR. The specific objectives were: to describe the social characteristics of clients with chronic cancer pain participating in the research; to characterize the pain perceived by the participants, considering the onset of the pain complaint, the number of pain locations, the frequency and relief obtained with the therapy received; and to identify the 10 descriptors of chronic pain perceived by clients with cancer of the digestive system (Experiment 1), breast (Experiment 2) and prostate (Experiment 3) using the category estimation scale.

Methods

Study location

The outpatient clinic of the Hospital das Clínicas, Faculty of Medicine of Ribeirão Preto, University of São Paulo, is a general public hospital, registered as a High Complexity Center in Oncology (CACON) according to SAS/MS Ordinance No. 513 of 09/26/2007. The Specialized Centers of High Complexity in Oncology offer specialized and comprehensive assistance to clients with cancer, acting in the prevention, early detection, diagnosis and treatment.

The interviews were at the Pain Management Clinic, the Oncology Outpatient Clinic, the Urology, Gynecology, Gastrosurgery and Proctology Outpatient Clinics and Wards.

Sample

The sample consisted of 150 clients with chronic cancer pain who met the inclusion and exclusion criteria of the research, being 60 patients with digestive system cancer, 45 with breast cancer and 45 with prostate cancer.

Inclusion and exclusion criteria

Participants over 18 years of age, of both sexes, diagnosed with breast, prostate or esophageal, stomach, pancreas, liver, gallbladder, bile duct, small intestine, colon and rectum (identified through analysis of medical records), with complaints of pain for more than three months and who wished to participate in the research. As exclusion criteria, participants with cognitive disorders and/or any clinical complications were considered during data collection.

Period

The data collection period was 18 months.

Ethical aspects

Research ethics was guided by Resolution CNS 196/96 for research with human beings. Authorization to conduct the research was obtained from the Research Ethics Committee of the Hospital das Clínicas, Faculty of Medicine of Ribeirão Preto – USP, according to the HCRP Process 11696/2004. The participants signed a Free and Informed Consent Term after being oriented and clarified about the research objectives.

Material

Paper pads with photocopies of the data collection instrument and EMADOR, pens and computers were used.

Procedure

First, data were collected on the participants' social characteristics, such as age, sex, occupation, marital status and religion. To characterize the perceived pain, the participants were asked about the onset of the pain complaint, the number of pain locations, the frequency and relief obtained with the therapy received.

To assess patients' perception of chronic pain from cancer, 50 descriptors of chronic pain from EMADOR [5] that most characterize this pain and their respective definitions were used. The method used was the estimation of categories.

Participants were given the task of judging each chronic pain descriptor on a scale of 11 points. A number proportional to the pain intensity is assigned to each descriptor in characterizing the perceived chronic pain, with 0 being the score of lowest attribution, 10 the highest attribution, and the other scores the intermediate levels.

Data analysis

The data obtained on the characterization of the participants' profiles were analyzed descriptively and presented in the form of tables, represented by frequency and percentage.

For the analysis of chronic pain descriptors resulting from Experiments 1, 2 and 3, the arithmetic mean and respective standard deviations were calculated and, as a result of these calculations, the positions of the 10 highest and lowest attribution descriptors were ordered in descending order.

Results

Assessment and measurement of chronic pain from digestive system cancer

In this sample, composed of 60 clients with chronic pain from digestive system cancer, the mean age was 59 years, with the lowest age being 19 years old and the highest being 81 years old. As for gender, 36 male clients (60%) and 24 female clients (40%) participated.

Regarding marital status, 33 (55%) were married or living in a stable union, 11 (18.3%) were single, 11 (18.3%) were widowed and 5 (8.33%) were divorced. Regarding religion, the Catholic religion was predominant with 38 (63.3%) participants, 13 (21.7%) evangelicals, 7 (11.7%) of different religions and 2 (3.3%) did not belong to any religion. Regarding education, 36 (60%) of the participants had incomplete elementary education, 6 (10%) attended high school, 5 (8.3%) had elementary school complete, 5 (8.3%) were not literate, 4 (6.7%) were literate, 2 (3.3%) had incomplete higher education and 1.7% for both categories of incomplete secondary education and complete higher education.

In the present study, the participants had an average of 14.8 months of pain complaint, 60 months for the greatest and 3 months for the smallest. Regarding the primary location of the tumor, 22 (37%) stomach cancers predominated, followed by 13

(22%) of the pancreas, 10 (17%) of the esophagus, 10 (17%) of the intestine and 8 (13%) of the liver.

As for the onset of pain, 35 (59%) reported that the pain started before diagnosis, 10 (17%) after undergoing surgical procedures, 8 (13%) after chemotherapy, 5 (8%) immediately after being informed of the diagnosis and 2 (3%) after radiotherapy.

Regarding the location of pain, 30 (50%) reported 1 site and 30 (50%) more than 1 site of pain. Regarding frequency, 31 (52%) had frequent pain, 28 (46%) had infrequent pain and 1 (2%) did not report frequency.

As for pain relief obtained with the therapy received, 55% had positive results, 23 (38%) had no relief and 4 (7%) reported not having any antalgic treatment.

Data regarding the characterization of chronic pain in the sample are shown in Table 1.

The psychophysical method of category estimation was used to identify the 10 descriptors of chronic pain perceived by patients with chronic pain from cancer of the digestive system. The scale used was the ordinal measure, whose scores ranged from 0 to 10.

We present the most attributable chronic pain descriptors in Table 2 and the lowest in Table 3.

The 10 chronic pain descriptors that most characterized the chronic pain of participants with cancer of the digestive system were: "uncomfortable", "annoying", "unpleasant", "uncomfortable", "painful", "severe", "exhausting", "exhausting", "uncomfortable", nauseous", "tormenting" and "disturbing". The descriptors "uncomfortable", "unpleasant", "nausea", "tormenting" and "disturbing" characterize the affective dimension; the descriptors "boring" and "exhausting" the cognitive and the descriptors "uncomfortable", "painful" and "strong" the sensitive dimension of pain.

The 10 lowest attributable chronic pain descriptors were "spreading", "demonic", "punitive", "maddening", "frightening", "choking", "devastating", "persistent", "continuous" and

Table 1. Characterization of chronic pain in the sample composed of clients with chronic pain from cancer of the digestive system (N=60)

Feature	N (%)
Mean period (months) from onset of pain complaint (range)	14,8 (3-60)
Tumor Location	
Stomach	22 (37)
Pancreas	13 (22)
Intestine	10 (17)
Esophagus	10 (17)
Liver	5 (8)
Onset of Pain	
Before diagnosis	35 (59)
After surgery	10 (17)
After chemotherapy	8 (13)
Immediately after diagnosis	5 (8)
After radiotherapy	2 (3)
Pain Location	
More than 1 site	30 (50)
Only 1 site	30 (50)
Pain Frequency	
Not frequent	31 (52)
Frequent	28 (46)
Did not inform	1 (2)
Relief with current analgesic treatment	
Yes	33 (55)
No	23 (38)
Does not do analgesic therapy	4 (7)

Table 2. Chronic pain descriptors of greater attribution in the characterization of chronic pain from cancer of the digestive system (N=60)

Position Order	Pain Descriptor	Arithmetic Average	Standard Deviation
	Chronicle		
1[a]	Bother	7,58	2,59
2[a]	Boring	7,52	2,51
3[a]	Unpleasant	7,23	2,78
4[a]	Uncomfortable	7,23	2,81
5[a]	Painful	7,13	2,77
6[a]	Strong	7,12	3,16
7[a]	Exhausting	7,03	3,33
8[a]	Sick	7,02	2,61
9[a]	Tormentor	7,02	2,99
10[a]	Disturbing	6,97	2,91

Table 3. Low-attribution chronic pain descriptors in the characterization of chronic pain from digestive system cancer (N=60)

Position Order	Pain Descriptor	Arithmetic average	Standard deviation
	chronicle		
1[a]	That spreads	4,87	3,51
2[a]	Demonic	5,1	4,08
3[a]	Punitive	5,2	3,49
4[a]	Maddening	5,35	3,58
5[a]	Scary	5,52	3,49
6[a]	Suffocating	5,55	3,36
7[a]	Devastating	5,63	3,48
8[a]	Persistent	5,73	3,01
9[a]	To be continued	5,75	3,18
10[a]	Frightening	5,77	3,77

"frightening". The descriptor "that spreads" characterizes the sensitive dimension of pain. Considering that tumors of the digestive tract produce visceral pain [6], it is hypothesized that these tumors characterize more localized pain. Other descriptors of the sensitive dimension were "suffocating" and "continuous"; the affective "demonic", "maddening", "punitive", "scary", "persistent" and "frightening" and the descriptor "devastating" of the cognitive dimension.

Assessment and measurement of chronic pain from breast cancer

A total of 45 women with chronic pain from breast cancer participated in this sample. The mean age was 55 years, the lowest being 24 and the highest being 79 years. As for marital status, 30 (67%) were married or living in a stable union, 6 (13%) were divorced, 5 (11%) were widows and 4 (9%) were single.

Regarding religion, 26 were Catholic (58%), 11 (25%) were Evangelical, 5 (11%) were Spiritualists and 3 (6%) of the participants belonged to different religions. As for schooling, 18 (40%) had incomplete elementary school, 11 (24%) had completed elementary school, 6 (13%) had completed high school, 3 (7%) were not literate and 7 (16%) had different schooling. Regarding occupation, 51% reported being a "housewife", performing domestic activities at home.

The average time of onset of the pain complaint was 32 months, being 240 months for the longest and 3 months for the shortest time. As for the onset of pain, 24 (53%) women reported that it started after undergoing surgical procedures, 9 (20%) before diagnosis, 7 (16%) immediately after diagnosis, 2 (5%) after chemotherapy, 2 (4%) after other events and 1 (2%) after radiotherapy.

Regarding the location of pain, 28 (62%) reported pain in only 1 area and 17 (38%) in more than 1 area. As for the relief obtained, 27 (60%) obtained relief, while 18 (40%) did not obtain relief with the analgesic therapy received.

Table 4 shows the data referring to the characteristics of chronic pain reported by the participants.

We present the most attributable chronic pain descriptors in Table 5 and the lowest in Table 6.

Table 4. Characterization of chronic pain in the sample composed of women with chronic pain from breast cancer (N=45)

Feature	N (%)
Mean Time (months) from onset of pain complaint (range)	32 (3-240)
Onset of pain	
After diagnosis	24 (53)
Before diagnosis	9 (20)
Immediately after diagnosis	7 (16)
After chemotherapy	2 (5)
After radiotherapy	1 (2)
Others	2 (4)
Pain Location	
Only 1 local	28 (62)
More than 1 local	17 (38)
Pain Frequency	
Not frequent	26 (58)
Frequent	19 (42)
Relief with current analgesic treatment	
No	27 (60)
Yes	18 (40)

Table 5. Chronic pain descriptors of greater attribution in the characterization of chronic pain from breast cancer

Position Order	Pain Descriptor chronicle	Arithmetic average	Standard deviation
1ª	Painful	6,33	3,45
2ª	Uncomfortable	6,16	3,2
3ª	Boring	6,09	3,42
5ª	Unpleasant	5,82	3,43
6ª	Persistent	5,67	3,5
7ª	Sick	5,42	3,7
8ª	Exhausting	5,33	4,13
9ª	Tiring	5,29	4,24
10ª	Worrisome	5,2	3,91

Table 6. Chronic pain descriptors with lower attribution in the characterization of chronic pain from breast cancer

Position Order	Pain Descriptor chronicle	Arithmetic average	Standard deviation
1ª	Demonic	2,96	1,41
2ª	Punitive	3,02	4
3ª	Monstrous	3,04	3,81
4ª	Wretch	3,2	4,04
5ª	Devastating	3,29	3,79
6ª	Suffocating	3,51	4,04
7ª	Maddening	3,53	3,99
8ª	Desperate	3,56	3,98
9ª	Dreadful	3,6	4,05
10ª	Terrifying	3,62	4,05

The 10 descriptors that most characterized the chronic pain of women with breast cancer were "painful", "uncomfortable", "annoying", "uncomfortable", "unpleasant", "persistent", "nauseous", "exhausting", "tiring" and "it's worrying". The descriptors that occupied the first and second positions, respectively, "painful" and "uncomfortable" indicate the sensitive nature of pain. However, the affective dimension descriptors predominate in the evaluation of women ("uncomfortable", "unpleasant", "persistent", "nauseous", "tiring" and "worrying"). The descriptors "boring" and "exhausting", among the descriptors assigned, characterize the cognitive dimension of pain.

The 10 descriptors of chronic pain least attributed by the participants were "demonic", "punitive", "monstrous", "disgraceful", "devastating", "suffocating", "maddening", "desperate", "terrifying" and "terrifying".

Except for the descriptor "suffocating", which characterizes the sensitive component of pain, and the descriptor "devastating", of the cognitive dimension, all other descriptors characterize the affective component.

Assessment and measurement of chronic pain from prostate cancer

The sample consisted of 45 male participants with chronic pain from prostate cancer. The mean age was 67 years, with the lowest being 43 and the highest being 89 years. As for marital status,

33 (73%) were married or living in a stable union, 5 (11%) were single, 4 (9%) were divorced and 3 (7%) were widowed.

Regarding the type of religion they belong to, there was a predominance of Catholic in 34 of the participants (76%), 5 (11%) Evangelical, 4 (8%) of different religions and 2 (5%) reported having no religion. As for schooling, 22 (49%) had incomplete elementary education, 8 (18%) were not literate, 7 (16%) were literate, 3 (7%) had completed higher education and 5 (10%) had different schooling.

The average time of onset of the pain complaint was 24 months, 108 months for the longest and 3 months for the shortest time. As for when the pain started, 17 (38%) reported that it was before diagnosis, 8 (18%) immediately after diagnosis, 7 (16%) after surgery, 5 (11%) after radiotherapy, 2 (4%) after diagnosis and 6 (13%) after other events.

In terms of pain location, 24 (53%) had more than 1 painful site and 21 (47%) had only 1 site. As for the relief obtained, 22 (49%) had relief, 20 (44%) did not and 3 (7%) did not undergo any treatment. Table 7 shows the data regarding the characterization of pain.

We present the most attributable chronic pain descriptors in Table 8 and the lowest in Table 9.

The 10 descriptors that most characterized the chronic pain of patients with prostate cancer were "uncomfortable", "severe", "harmful", "painful", "worrying", "unpleasant", "boring", "disturbing", "exaggerated" and "uncomfortable". Of these, the affective descriptors were "annoying", "worrying", "unpleasant" and "disturbing"; the "strong", "painful", "exaggerated" and "uncomfortable" sensitives and the "harmful" and "boring" cognitives.

The 10 lowest attributable chronic pain descriptors were "frightening", "maddening", "spreading", "continuous", "monstrous", "devastating", "disgraceful", "demonic", "brutal" and

Table 7. Characterization of chronic pain in the sample composed of clients with chronic pain from prostate cancer (N=45)

Feature	N (%)
Mean Time (months) from onset of pain complaint (range)	24 (3-108)
Onset of pain	
Before diagnosis	17 (38)
After surgery	8 (18)
Immediately after diagnosis	11 (24)
After radiotherapy	5 (11)
Others	4 (9)
Pain Location	
More than 1 local	24 (53)
Only 1 local	21 (47)
Pain Frequency	
Not frequent	19 (42)
Frequent	26 (58)
Relief with current analgesic treatment	
Yes	22 (49)
No	20 (44)
Does not do analgesic therapy	3 (7)

Table 8. Chronic pain descriptors of greater attribution in the characterization of chronic pain from prostate cancer

Position Order	Pain Descriptor chronicle	Arithmetic average	Standard deviation
1[a]	Bother	6,2	2,74
2[a]	Strong	5,93	3,24
3[a]	Harmful	5,84	3,23
4[a]	Painful	5,71	3,01
5[a]	Worrisome	5,69	3,17
6[a]	Unpleasant	5,69	3,21
7[a]	Boring	5,58	2,91
8[a]	Disturbing	5,53	3,4
9[a]	Exaggerated	5,49	3,51
10[a]	Uncomfortable	5,31	3,11

Table 9. Low-attribution chronic pain descriptors in the characterization of chronic pain from prostate cancer

Position Order	Pain Descriptor chronicle	Arithmetic average	Standard deviation
1ª	Scary	3,2	3,03
2ª	Maddening	3,71	3,29
3ª	That spreads	3,82	3,41
4ª	To be continued	3,93	3,59
5ª	Monstrous	3,96	3,34
6ª	Devastating	4,02	3,15
7ª	Wretch	4,09	3,52
8ª	Demonic	4,11	3,55
9ª	Brutal	4	3,41
10ª	Distressing	4,2	3,13

"anguish".

The descriptors that indicate the affective component of pain were "frightening", "maddening", "monstrous", "disgraceful", "demonic" and "anguish". The descriptors "spreading" and "continuous" demonstrated the sensitive component of pain and the descriptors "devastating" and "brutal" the cognitive.

Discussion

Chronic pain from digestive system cancer

We found, in the literature, few studies that demonstrated the social characteristics of clients with cancer of the digestive system. The study used a sample of 11 participants with severe visceral pain, of which 3 had pancreas, 4 colon and 4 gastric cancer. Of these, 3 were male and 8 were female, differing from present study participants in which the male gender predominated. However, the average age of the participants was 63 years, correlating with the average age studied [6].

Another study found in the literature on pain assessment of participants with digestive system cancer was performed by Mystakidou et al. [7], in which of the 186 participants interviewed, 50.5% were men and the mean age was 62 years. The average number of years of study was 11.1 and most participants were married (59.7%). Tumors located in the stomach predominated, 22 (11.83%), followed by 7 cases of tumors of the esophagus (7.53%) and 17 of the pancreas and colon (9.14%), respectively. Of the total, 119 (64%) received moderate opioids, while 67 (36%) received strong opioids. Such data showed similarity with the data obtained in the present study in terms of mean age, male predominance and primary tumor site.

INCA data showed that stomach cancer was the most frequent among digestive system tumors in the southeastern region of Brazil, being more frequent in males, similar data to the studied sample [8].

Mystakidou et al. [7] used the 78 descriptors that make up the MPQ in the psychometric assessment of pain, showing that participants with nociceptive pain selected more scores for affective descriptors, attributing to this greater intensity than participants with neuropathic pain.

Chronic pain from breast cancer

Poleshuck et al. [9] evaluated 95 women with breast cancer undergoing surgery and of these, 48% reported chronic pain. The mean age of the participants was 58 years, 70% were married, 48% had more than 2 years of education and 84% used analgesics at least twice a day. Correlating with the present study, the mean age was similar and 53% of the participants reported pain after surgery.

Gartner et al. [10] showed that 47% of 3253 Danish women undergoing surgical procedures to treat breast cancer had chronic pain. The mean age of the participants was 55 years, 13% of women with PMPS reported severe pain, 77% reported daily pain and 18% reported only 1 pain site. Such data differ from the present study, in which 62% reported pain in only 1 area and 42% reported frequent pain.

Of the 23 women complaining of chronic pain after breast cancer surgery evaluated by Burckhardt and Jones [11], 11 had regional pain and 12 had generalized pain. The mean age of the participants was 57 years and 71% were married. As for the onset of pain, 52% reported that it occurred shortly after surgery and 80% of women with regional pain and 50% of women with generalized pain reported intermittent pain. As for relief with medications, 44% of participants with regional pain reported no pain relief and all with generalized pain complaints reported relief. We observed that the occurrence of pain after surgery in the group of women with generalized pain was similar to this study, but the relief report differed between the two groups evaluated.

MacDonald et al. [12] analyzed 59 women with persistent PMPS and the demographic characteristics were comparable to those of this study: the mean age of the participants was 59 years and the mean duration of pain was 3 to 9 years after surgery. For pain assessment, the authors used the MPQ and identified that sensitive descriptors were chosen more frequently than affective and cognitive descriptors, differing from the results found in this study, in which affective descriptors predominated in the assessment.

Burckhardt and Jones [11] analyzed the pain descriptors assigned by participants with PMPS through the application of the MPQ, verifying that in the generalized pain group the participants chose more items than those in the regional pain group. In the two groups studied, the descriptor "painful", of a sensitive nature, was the most attributed, as in the present study, demonstrating similarity in assessing pain by women with breast cancer, regardless of the region in which they live.

Chronic pain from prostate cancer

Sandblom et al. [13] explored the interference of pain in the end-of-life quality of men with prostate cancer using the BPI instrument for pain assessment. Of the 1243 respondents, the mean age was 66 years, similar to the present study. In the group of participants who died due to prostate cancer, about 29% had severe pain in the last week of life and, in the group of living, the

rate was 10.5%. In the present study, 13.3% of the participants chose scores above 8 for all the descriptors presented.

Munger-Beyeler et al. [14] evaluated pain intensity and application of WHO guidelines for cancer pain management in 170 participants with prostate cancer treated at Swiss cancer treatment centers. The mean age was 70 years, the complaint of severe pain represented 40% in total and 27% of respondents did not take analgesics. The authors concluded that drug treatment for pain was insufficient, WHO guidelines were not followed, and prescribed analgesics were not potent enough for the pain intensity assessed. In the present study, only 7% of the participants did not use analgesics and 49% reported getting relief with the current medication. The mean age was similar, that is, 67 years and the most attributable pain score in the study was 6.20 ± 2.74, measured using an ordinal measurement scale, whose scores ranged from 0 to 10.

We did not find in the literature studies on the assessment of the language of pain perceived by men with chronic pain from prostate cancer to correlate with the data of the present investigation.

Discussion of results between different samples

Several studies reinforce that the ideal measurement guides the adequate management of cancer pain. Its multidimensional nature and the different domains of life that are affected by it make the choice of method a complex task [15,16,17,18,19 ,20, 21,22,23]. On the other hand, a limited number of studies seek to identify the language and dimensions of cancer pain, even though the importance of this knowledge has been highlighted for decades [24,25].

Recent studies available in the literature that evaluated cancer pain through descriptors used the descriptors that make up the MPQ in their entirety [7,11,12,26,27,28]. In the present study, the different languages perceived by participants with persistent pain from cancer of different types of tumors, age, gender and social characteristics were evaluated.

The data resulting from the 3 samples showed that the mean age was 60 years. Other studies that evaluated the pain of cancer participants had a similar mean age between 57 and 63 years [7,29,30,31].

Regarding gender, in this study there was a predominance of males (54%), as in some studies [7,29,30], while in others, the participants were mostly female [26,28,31]. Regarding marital status, 58.7% of the participants were married, 13.3% single, 12.7% widowed and 10% divorced. This item was evaluated only in the study by Mystakidou et al. [7], showing some similar values, such as 59.7% married, 12.4% single and 10.2% widowed, with an important difference regarding divorced participants, making a total of 33%.

About the participants' education, the assessment in this study was based on the nomenclature used in Brazilian education (kindergarten, elementary school, high school and higher education), demonstrating that 50.6% of the participants had incomplete elementary education. Other studies have evaluated this variable by years of education [7,28,32].

Census data from the Brazilian Institute of Geography and Statistics [33] showed that, in the Brazilian population over 25 years of age, 10.6% have completed higher education, 12.9% have no education, 36.9% have education incomplete elementary school,

8.8% finished elementary school and 23% of the population had completed high school, that is, similar to the present study, in which most had incomplete elementary school. According to the World Health Organization, cancer is associated with the social and economic situation, since risk factors are higher in groups with less education and survival rates are lower in lower social classes [34].

Concerning the religion of respondents in this research, 65.3% were Catholic, 19.3% were Evangelical, 8% followers of the Spiritist Doctrine, 4% belonged to different religions and 3.3% had no religion. Such data are consistent with the indicators of BRAZIL [33], which show that in the Brazilian population there is a predominance of 73.6% in the Catholic religion, 15.4% in the Evangelical religion, 7.4% are non-religious and 3.4% belong to other religions.

Only one study found that 37.9% of the participants were Protestant, considering that the study was carried out in the United States of America [26]. Several authors emphasize the importance of assessing spiritual pain, as it inflicts significant suffering and anguish on participants with cancer pain [2,18,35,36,37] but we found that this assessment is often neglected in research and clinical practice.

As for the primary site of the tumor, 30% were located in the breast and 30% were located in the prostate, these being convenience samples and in the group of participants with tumors of the digestive system, there was a predominance of tumors in the stomach, totaling 14.7%.

We found in the literature the multicenter study by Apolone et al. [29], in which 1801 cancer patients participated. Of these, 21.8% had lung cancer, 15.9% breast, 13.7 colorectal, 7.9% prostate, 6.1% gynecological, 6.1% genitourinary, 6.0% pancreas, 5 .5% of the stomach, 4.5% of the head and neck and 12.5% had other tumors of unknown sites. Pain intensity assessed by the BPI showed that 65.9% had moderate pain and, on a scale of 0 to 10 points, the worst pain reported was 6.8. In the 3 samples of this study, the pain score was 6.2, demonstrating similarity with the study by Apolone et al. [29].

As for the onset of the pain complaint, we did not find studies that evaluated this variable and, in this study, 40.7% of the participants reported that the pain appeared before the diagnosis of the disease, which is the reason for seeking the health service; 27.3% reported that the pain appeared after surgery, 13.3% immediately after diagnosis, 6.7% after chemotherapy, 5.3% after radiotherapy and 6.6% after several occurrences.

According to the International Association for the Study of Pain, pain is a reason for seeking urgent and emergency services in 70% of cases worldwide, but complaints are commonly underestimated and cancer pain is observed in 20% to 50 % of cases at diagnosis. The data collected brings to the reflection whether patients, when seeking health services due to pain complaints, are adequately evaluated for early detection of cancer. In cases where the pain appears immediately after the diagnosis, the possibility of alteration in the psychic dynamics caused by the impact of the information is considered [38].

Another aspect evaluated was the number of existing pain sites. In the 3 respondent groups, 52.7% reported only 1 site and 47.3%

reported pain in more sites. In the study by Enting et al. [32], 19% of the 100 participants reported pain in several sites. Such information generates the understanding that cancer pain demonstrates complex management, since different pain sites may require different strategies for each area affected by it.

According to the WHO, relief from cancer pain is possible in about 90% of cases [39]. However, 48% of the participants in this study reported not getting complete relief from their pain and 4.7% did not undergo any analgesic therapy.

Regarding the intensity of pain attributed to the 3 samples, the results showed that participants with digestive system tumors reported higher scores (7.58 ± 2.59) for the descriptor "troublesome", women with breast cancer (6.33 ± 3.45) for the descriptor "painful" and men with prostate cancer (6.20 ± 2.74) for the descriptor "troublesome".

It was evidenced that, of the 60 participants with gastric cancer, 16 (26.6%) reported scores above 8 in the mean of all descriptors; 10 (22.2%) of the women with breast cancer and 6 (13.3%) of the participants with prostate cancer also reported high scores. Such data are consistent with the literature that tumors of the digestive system produce moderate to severe pain [6,40,41].

Some essential similarities were evidenced in evaluating the 10 descriptors of chronic pain most attributed by the 3 studied samples. We observed that 5 descriptors were assigned by the 3 groups: "painful", "uncomfortable", "annoying", "uncomfortable" and "unpleasant"; another 5 were assigned in 2 groups: "nausea", "exhausting", "worrying", "strong" and "disturbing" and another 5 descriptors were assigned in different groups: "persistent", "tiring", "harmful" and "tormenting". Both the participants with prostate cancer and the participants with digestive cancer attributed the descriptor "uncomfortable", with an affective dimension, as the word that most described their pain, placing this descriptor in fourth place with the highest attribution by women with breast cancer.

This similarity in the attribution of descriptors suggests as a hypothesis that the language of cancer pain is similar, regardless of the tumor site and gender. Concerning the dimension of the most attributed descriptors in the 3 groups, there was a predominance of chronic pain descriptors that characterized the affective dimension (50%), followed by descriptors that characterized the cognitive dimension (26.6%) and by the descriptors of the sensitive dimension (23.3%).

Often, assessments of the client with cancer pain explore only the sensory and physical aspects of pain. However, we observed that, among the 10 most attributed descriptors, there was a predominance of those that characterize the affective dimension of pain. The results of this study showed that participants with cancer pain characterized their pain more in the affective and cognitive dimensions and, ultimately, in the sensitive dimension, reinforcing the importance of managing ―opiate-irrelevant pain‖, requiring attention and implementation. of specific strategies [18,35].

Sela et al. [42] identified high levels of affective reactions among 11 participants with advanced cancer and that frustration, exhaustion, anger, despair and helplessness were related to the sensation and intensity of perceived pain. We highlight the religious character demonstrated in the pain assessment of the 3 sam-

ples studied, in which the descriptors "demonic", "disgraceful", "punitive" and "cursed" were among the lowest attribution, with 96.7% of all participants belonging to some religion. Several authors emphasize the need to assess and manage spiritual pain, paying attention to religious issues [2,18,35,36,37].

For Pinheiro [37], religions can influence patients' perception of themselves and the response to pain and that states of ecstasy seem to act on descending inhibitory pathways, slowing or abolishing pain. For Pimenta and Portnoi [36] religious faith helps in tolerating pain and can influence patients' attitude in interpreting pain as punishment, making them seek forgiveness for possible mistakes in prayers and rituals.

Kübler-Ross [43] pointed out that, in the process of death and dying, clients may go through the negotiation phase, in which they make promises and prayers to negotiate the deadline for their death. There must be respect for the participants' freedom to believe what they need, undertaking a global approach to pain, both cultural-psychological and physical [37]. The data resulting from this study reinforce the need for evaluation, by health teams, of the multidimensionality and the totality of cancer pain, considering the psychological, spiritual and social repercussions that it brings [2,35].

Conclusion

Considering the proposed objectives for the present study, the following considerations are presented. The first objective was to characterize the 3 samples according to social variables. The participants' mean age was 60 years, 54% were male, 58.7% were married, 65.3% were Catholic and 50.6% had completed elementary school.

The second objective was to characterize the chronic pain of the participants through some specific indicators, showing that, regarding the primary site of the tumor, 30% were located in the breast, 30% in the prostate and 14.7% in the stomach. The onset of pain complaints occurred in 40.7% of the participants before the disease diagnosis, 52.7% reported only 1 site of pain and 55.4% reported that it was intermittent. The pain intensity attributed in the 3 samples, considering the arithmetic mean, showed that participants with digestive system tumors reported higher scores (7.58 ± 2.59) and 26.6% of this sample reported scores above 8 in the arithmetic mean of all the descriptors presented.

The third objective of the study was to identify the descriptors of chronic pain from cancer perceived by the 3 samples. We observed that, among the 10 descriptors with the highest attribution, 5 were present in the 3 groups: painful, uncomfortable, annoying, unpleasant and the descriptor "uncomfortable", which was the most attributed both by participants with cancer of the digestive system and by participants with prostate cancer, demonstrating the similarity of pain language in different groups. In the dimension of descriptors with greater attribution in the 3 groups, there was a predominance of descriptors of chronic pain that characterized the affective dimension (50%), followed by the cognitive dimension (26.6%) and the sensitive dimension (23.3%). Such data reflect the need to change the paradigm of assessing chronic pain from cancer by health teams, since clinical pain assessments are often focused on the physical dimension,

but the affective dimension was predominant in this study.

We highlight the religious character shown in the pain assessment of the 3 samples studied, where the descriptors "demonic", "disgraceful", "punitive" and "cursed" were among the least attributed, in hypothesis due to the high level of religiosity of the participants. We emphasize that issues involving the religiosity and spirituality of clients with cancer pain should be better explored to manage spiritual pain. We conclude that, even though cancer pain is considered an individual, multidimensional phenomenon with involvement in several domains of life, the language is similar, regardless of the tumor site and gender.

The present study was a pioneer in the assessing cancer pain using EMADOR's chronic pain descriptors. As a result, we will use the descriptors most assigned in this study to implement an instrument for assessing chronic pain from cancer in the clinic. We emphasize the need for more research on the language of cancer pain to be undertaken to understand better and manage the pain of those who suffer from it.

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Conflicts of Interest

The authors declare no conflict of interest.

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