Revista Brasileira de Enfermagem
REBEn

Nursing outcomes for pain assessment of patients undergoing palliative care

Resultados de enfermagem para avaliação da dor de pacientes em cuidado paliativo

Resultados de enfermería para evaluación del dolor de pacientes en cuidado paliativo

Bruna Schroeder Mello[I]
ORCID: 0000-0003-0676-5293

Miriam de Abreu Almeida[I]
ORCID: 0000-0002-4942-9882

Lisiane Pruinelli[II]
ORCID: 0000-0002-1046-6037

Amália de Fátima Lucena[I]
ORCID: 0000-0002-9068-7189

[I] *Universidade Federal do Rio Grande do Sul. Porto Alegre, Rio Grande do Sul, Brazil.*
[II] *University of Minnesota, School of Nursing. Minneapolis, United States of America.*

How to cite this article:
Mello BS, Almeida MA, Pruinelli L, Lucena AF. Nursing Outcomes for pain assessment of patients undergoing palliative care. Rev Bras Enferm [Internet]. 2019;72(1):64-72. DOI: http://dx.doi.org/10.1590/0034-7167-2018-0307

Corresponding Author:
Bruna Schroeder Mello
E-mail: mellobru@gmail.com

Submission: 05-11-2018 **Approval:** 07-04-2018

ABSTRACT

Objective: To select outcomes and indicators of the Nursing Outcomes Classification (NOC), in order to assess patients with cancer under palliative care with Acute and Chronic Pain Nursing Diagnoses; and to construct the conceptual and operational definitions of the indicators. **Method:** Expert opinion study and literature review. The sample consisted of 13 experts. The data collection was in own tool applied in face-to-face meeting and by e-mail. In the analysis of the data, it was considered between 75% and 100% of agreement. **Results:** Eight outcomes and 19 indicators were selected. The results with higher scores were Pain Level, Pain Control and Client Satisfaction: Pain Management. For all indicators selected, conceptual and operational definitions were constructed. **Conclusion:** The selection of results and priority indicators for the assessment of pain in palliative care, as well as the construction of its definitions, will support clinical practice.

Descriptors: Acute Pain; Chronic Pain; Oncological Nursing; Palliative Care; Evaluation of Results (Health Care).

RESUMO

Objetivo: Selecionar resultados e indicadores da *Nursing Outcomes Classification* (NOC) para avaliar pacientes oncológicos em cuidados paliativos com os diagnósticos de enfermagem de Dor Aguda e Crônica; construir as definições conceituais e operacionais dos indicadores. **Método:** Estudo de opinião de especialistas e de revisão de literatura. A amostra foi composta por 13 especialistas. A coleta de dados foi em instrumento próprio aplicado em encontro presencial e por e-mail. Na análise dos dados, considerou-se entre 75% e 100% de concordância. **Resultados:** Selecionaram-se oito resultados e 19 indicadores. Os resultados com maiores escores foram Nível da Dor, Controle da Dor e Satisfação do Cliente: Controle da Dor. Para todos os indicadores selecionados, foram construídas definições conceituais e operacionais. **Conclusão:** A seleção dos resultados e indicadores prioritários à avaliação da dor em cuidado paliativo, bem como a construção de suas definições, subsidiarão a prática clínica.

Descritores: Dor Aguda; Dor Crônica; Enfermagem Oncologica; Cuidados Paliativos; Avaliação de Resultados (Cuidados em Saúde).

RESUMEN

Objetivo: Selección de resultados e indicadores de la *Nursing Outcomes Classification* (NOC) para evaluar pacientes oncológicos en cuidados paliativos con los diagnósticos de enfermería de Dolor Agudo y Crónico; construir las definiciones conceptuales y operativas de los indicadores. **Método:** Estudio de opinión de expertos y de revisión de literatura. La muestra fue compuesta por 13 especialistas. La recolección de datos fue en instrumento propio aplicado en encuentro presencial y por e-mail. En el análisis de los datos, se consideró entre el 75% y el 100% de concordancia. **Resultados:** Se seleccionaron ocho resultados y 19 indicadores. Los resultados con mayores puntuaciones fueron Nivel del Dolor, Control del Dolor y Satisfacción del Cliente: Control del Dolor. Para todos los indicadores seleccionados, se construyeron definiciones conceptuales y operativas. **Conclusión:** La selección de los resultados e indicadores prioritarios a la evaluación del dolor en cuidado paliativo, así como la construcción de sus definiciones, subsidiarán la práctica clínica.

Descriptores: Dolor Agudo; Dolor Crónico; Enfermería Oncologica; Cuidados Paliativos; Evaluación de Resultados (Cuidados en Salud).

INTRODUCTION

The pain of patients with cancer under palliative care may be constant or intermittent and may be caused by various mechanisms, such as direct invasion of the tumor (local and systemic), response to invasive diagnostic tests (biopsy), and various therapies (surgery, chemotherapy or radiotherapy). Besides, psychosocial factors such as depression, anxiety, catastrophizing and cognition can also influence pain perception and contribute to the increase in the intensity of *total pain*. This is a syndrome in which, in addition to nociception, other physical, emotional, social and spiritual factors influence the expression of the complaint[1].

Measuring pain is a fundamental parameter for therapeutic orientation. The intensity of pain, in turn, is the criterion most used in clinical practice and results from the global interpretation of the sensitive, emotional and cognitive aspects that involve the painful experience. However, in spite of these several dimensions to be considered in evaluating the pain of patients with cancer, it is observed that the most frequently used tools are still the one-dimensional scales. However, recent study results have demonstrated the importance of using a multidimensional tool to assess total pain, which is characteristic of patients with cancer[1].

Accurate, complete and systematic assessment of pain in the nursing care of patients with cancer under palliative care is crucial. However, it is necessary to use appropriate tools to assist in this process and the search for new alternatives that allow the qualification of pain assessment of these patients, which is still a issue under study[2].

In this sense, the use of *Sistemas de Linguagem Padronizados* (SLP - Standardized Language Systems) is a feasible alternative to qualify nursing care for patients with cancer under palliative care, who suffers from the presence of total pain[2].

One of these SLPs is the Nursing Outcomes Classification (NOC) [3], which orders and standardizes nursing-sensitive outcomes. The taxonomic structure of the NOC comprises seven domains, each containing classes, which in turn encompass nursing results. These describe the patient's state, behaviors, reactions and feelings in response to the care performed, based on the Nursing Diagnoses (ND)[4]. Each result consists of a title, definition, a list of indicators and a five-point Likert Scale(s) to measure improvement, worsening or maintenance of the patient over a period of time[3]. The lowest score on the scale represents the worst state and the highest score the best.

In the case of patients with cancer under palliative care, the Acute pain and/or Chronic Pain NDs[4] can often be established, which would require the selection of results in the NOC for its evaluation, in front of the nursing interventions.

In order to facilitate the choice of nursing outcomes for each NANDA International (NANDA-I) ND, the NOC provides, in some of its editions, three connecting categories: The first offers results to assess the ND resolution; the second provides additional results to assess the defining characteristics identified for ND; and the third offers results associated with the related factors of ND or intermediate results[3].

Despite this, some difficulty in selection persists due to the large number of results and indicators described in the NOC, as well as to the subjectivity in the application of clinical indicator scales, which can determine the patient's condition, but do not exclude the need for clinical judgment nurses, which is not always objective[3].

In this sense, it seems appropriate to make a prior selection of the results and indicators for each ND, considering the specificity of the patients to be assessed, in order to facilitate the clinical applicability of this classification[2]. In addition, the development of conceptual and operational definitions for the indicators and the five levels of their scales, in order to favor the way in which each of them is understood and used in the practice of care, with parameters delimited and with greater reliability in the clinical trial[5-6].

To do so, the guiding question of this study was: What are the NOC outcomes and indicators most applicable in the assessment of hospitalized patients under palliative care with Acute Pain and Chronic Pain NDs, and what are the conceptual and operational definitions of these indicators, considering the extent of the proposed Likert Scale?

OBJECTIVE

This study aims to select the outcomes and indicators of nursing described in the NOC for Acute Pain and Chronic Pain Nursing Diagnoses in patients with cancer undergoing palliative care.

This study also intended to construct the conceptual and operational definition of the NOC outcomes indicators for the assessment of patients under palliative care with Acute Pain and Chronic Pain Nursing Diagnoses.

METHOD

Ethical aspect

The study is part of a larger project on the applicability of the NOC in the palliative care setting and was approved by the Committee of Ethics in Research of the Hospital of Clinics of Porto Alegre (HCPA). Following the precepts of research with human beings, based on Resolution 466/12, of the National Health Council (*Conselho Nacional de Saúde*)[7], one of the researchers conducted face-to-face contact with the nurses' heads in order to present the research objective. From then on, an invitation was made to the nurses to participate in the research, just as the Informed Consent Form was signed by the participants, granting them the freedom to withdraw from the study at any time, guaranteeing privacy and confidentiality of the answers, as well as their exclusive use for scientific purposes.

Design, place of study and period

This is an expert opinion study[8] on the selection of results and NOC indicators to assess patients with cancer under palliative care with the Acute Pain and Chronic Pain NDs, carried out in July 2013. This type of study has been used for the refinement of nursing taxonomies, in order to establish standards for clinical practice[5-6].

Population or sample; criteria of inclusion and exclusion

The study sample consisted of 13 expert nurses from the field of Oncology from two large hospitals in the city of Porto Alegre/RS, who met the criterion of having clinical experience of at least two years in the care of patients with cancer and under palliative care[2,5].

Initially, 27 nurses who met the eligibility criteria were invited to attend a face-to-face meeting with one of the researchers, in order to present the research objective and the tool that would be filled by them. 15 people accepted to participate in the meeting and study, signing the Informed Consent Form.

Study protocol

The data collection was performed though a tool sent by email to the experts, together with the instruction that they should be returned within a maximum period of 30 days. For this, a specific electronic address was created for sending and returning the tools, as well as clarifying doubts. We obtained a return of 13 completed tools.

The basis for the construction of the data collection tool was the NOC link with NANDA-I, described in the 4th edition of the NOC, which points out six suggested results and 17 associated additional results for Acute Pain ND and six suggested results and 15 additional results associated with Chronic Pain ND, with three suggested results and eight additional associated results being repeated for the two NDs. Thus, the tool contained 33 results related to Acute Pain and Chronic Pain NDs, which were submitted to the opinion of the expert nurse to select the most applicable in the assessment of patients with cancer under palliative care. The tool contained three columns, and in the first were the NOC outcomes for Acute Pain and Chronic Pain NDs with its title, definition and their respective indicators; in the second and third columns were the "select" or "do not selected", respectively, which were marked with an "x" by the experts, according to their experience in the Oncology clinic.

Analysis of results and statistics

The analysis of the data obtained by the tool was descriptive statistics, with a sum of absolute and relative frequency of the results and their indicators selected by experts. A minimum percentage of 75% was used for the selection of NOC outcomes and indicators analyzed[2,5]. This percentage was used in function of a high number and the similarity of the analyzed indicators. Following the analysis, following the recommendation of the NOC to select relevant results and applicable in the context of assistance to the researchers, carried out a refinement of these data, eliminating the indicators that presented a great similarity among themselves, in order to make their application more appropriate to clinical practice.

RESULTS

Characterization of experts

The 13 expert nurses participating in the study were female, with a median duration of 120 (96-186) months and an average Oncology time of 72 (54-108) months. Nine (69.2%) of them were between 5 and 10 years old under palliative care and the predominant degree was expert (61.5%).

Table 1 – Characterization of the sample of expert nurses, Porto Alegre, Rio Grande do Sul, Brazil, 2014

Variables	N=13
Titles†	
PhD	1 (7.7)
Master	2 (15.4)
Expert	8 (61.5)
Graduate	2 (15.4)
Graduation length (months)‡	120 (96-186)
Field of work†	
Assistance clinic	7 (53.8)
Nursing coordination	4 (30.8)
Teaching	1 (7.7)
Research	1 (7.7)
Acting expertise†	
Oncology	8 (61.5)
Oncology – Palliative Care	4 (30.8)
Oncology – Intensive Care	1 (7.7)
Time of performance in the Oncology (months)‡	72 (54-108)
Time of performance with patients under palliative care†	
From 5 to 10 years	9 (69.2)
From 1 to 4 years	4 (30.8)
Time of participation in pain or palliative care group†	
4 years or over	3 (23.1)
From 2 to 4 years	4 (30.8)
Up to 2 years	2 (15.4)
Participation in courses/events/pain lecture or palliative care	8 (61.5)
Publication or presentation of pain or palliative care works†	
Articles	
Up to 10	3 (23.1)
Chapter and/or books	
Up to 10	1 (7.7)
Annals of congress	
Up to 10	2 (15.4)

Note: † n (%); ‡ median (percentis 25-75).

Regarding their participation in a study group on pain and/or Oncology palliative care, 4 (30.8%) participated for up to 2 years and 3 (23.1%) for more than 4 years. Regarding the participation in courses/events/lectures related to pain or palliative care, 8 (61.5%) nurses reported participation since they started in the Oncology area (Table 1).

Nursing outcomes Nursing Outcomes Classification and clinical indicators selected by expert nurses

Expert nurses initially indicated four NOC outcomes and 14 indicators of the suggested level and seven outcomes and 30 indicators of the additional level associated with Acute Pain and Chronic Pain NDs, considering the setting of palliative care for patients with cancer. However, after refinement of these data by the researchers, a total of eight results and 19 indicators were selected, with three results and 10 indicators of the suggested level and five results and nine indicators of the associated additional level.

For each indicator of the eight selected results, conceptual and operational definitions were elaborated from the current literature[9-20] and clinical experience in the care of patients under palliative care. Their purpose was to guide the application of the indicators in the five levels of the NOC scales and reduce the subjectivity of the evaluator, since the classification does not specify them. Chart 1 presents

the NOC nursing results and indicators with their numerical codes as well as the conceptual and operational definitions constructed for each indicator and the extent of the five points of the Likert Scale in order to assess the evolution of patients with cancer under palliatives care diagnosed by nurses with Acute and/or Chronic Pain.

The NOC outcomes selected for the assessment of the patient with cancer under palliative care with the Acute Pain or Chronic Pain NDs are located in the *Perceived Health* domain (50%), in the *Symptoms Status, Health and Quality of Life and Satisfaction with Care*. In the sequence, they are located in the *Functional Health* domain (12.5%), in the *Energy Maintenance* class; the *Physiological Health* domain (12.5%), in the *Metabolic Regulation* class; in the *Psychosocial Health* domain (12.5%), in the *Psychological Well-Being* class and, in *the Health Knowledge and Behavior* (12.5%), in the *Health Behavior* class.

Chart 1 – Outcomes and indicators of nursing NOC selected by experts, their respective conceptual, operational and extent definitions for the assessment of patients with cancer under palliative care with Acute Pain and/or Chronic Pain, Porto Alegre, Rio Grande do Sul, Brazil, 2014

*RE	Indicators	Conceptual Definition	Operational Definition	Extent of operational definition for the application of the 5-point Likert Scale
Pain Level (2102)	Reported pain (210201)	It is characterized by the self-report of the painful experience. The response may be spontaneous or requested[8].	Apply the Verbal Numerical Scale (VNS), asking how much the patient rates his pain from 0 to 10.	- Ten (10) = Unbearable intensity pain. - Seven to Nine (7 to 9) = Strong intensity pain. - Four to Six (4 to 6) = Moderate intensity pain. - One to Three (1 to 3) = Low intensity pain. - Zero (0) = No Pain.
	Length of pain episodes (210204)	It is characterized by the duration of pain episodes[9].	To ask the patient the duration of the pain episodes, considering a 24-hour period.	- The pain episodes last all the time. - The pain episodes last most of the time. - The pain episodes last for more than 1 hour. - The pain episodes last up to 1 hour. - No pain episodes.
	Facial expressions of pain (210206)	It is characterized by changes in facial mime during painful episodes[10].	To observe if the patient presents a change in the facial expression of the face, such as: wrinkled brow, twisted mouth, crying face, eyebrow contraction, tongue reaction, chin tremor, lip opening during assessment.	- Presents facial expressions of pain continuously during the assessment. - Presents facial expressions of pain 5 to 6 times during the assessment. - Presents facial expressions of pain 3 to 4 times during the assessment. - Presents facial expression of pain 1 to 2 times during the assessment. - Does not present facial expressions of pain during the assessment.
	Agitation (210222)	Restless state of motion, disturbance, excitement[11].	To observe if the patient shows signs of agitation, such as: fidgeting, twisting hands, pulling clothes and inability to sit still.	- Dangerous agitation (e.g., attempts to remove catheters). - Very agitated, does not show calm after verbal command. - Moderate agitation, calmness after verbal command. - Light agitation, calm and cooperative after verbal command. - No agitation.
	Irritability (210223)	Excessive reaction to the stimuli, translated by discomfort that generates a certain impatience to anger and hatred[11].	To observe if patient shows signs of irritation (impatience, hatred, fury, aggressive response, demonstration of annoyance) during assessment.	- Hazardous Irritation (e.g., attempting to assault). - Very irritated (irritates with all the stimuli and does not show calm in any moment). - Moderate irritation (irritates with some stimuli, but does not calm down easily). - Mild irritation (irritates with certain stimuli, but calms down easily). - No irritation.
Vital Signs (0802)	Respiratory rate (080204)	Number of breathing cycles (inspiration and expiration) that the body performs involuntarily per minute[12].	To check respiratory rate parameters.	- > 26 mpm - 25 to 26 mpm - 23 to24 mpm - 21 to 22 mpm - 16 to 20 mpm
	Blood Pressure (080205/080206)	Refers to the pressure exerted by the blood against the artery wall during ventricular systole and diastole[13].	Verificar parâmetros da pressão arterial.	- ≥ 180/110mmHg -179/109 160/100mmHg - 159/99 140/90mmHg - 139/89 130/85mmHg - 129/84 120/80 mmHg
Pain Control (1605)	Recognizes pain onset (160502)	The ability of the patient to recognize when the pain starts[14].	To ask if the patient can identify when the pain started.	- Never recognizes. - Rarely recognizes the onset of pain. - Sometimes you recognize the onset of pain. - Often recognizes the onset of pain. - Always recognize the onset of pain.

To be continued

Chart 1

*RE	Indicators	Conceptual Definition	Operational Definition	Extent of operational definition for the application of the 5-point Likert Scale
Pain Control (1605)	Describes primary causal factors (160501)	It is characterized by the patient describing the factors causing the pain[14].	To ask the patient to describe the factors that cause pain, such as: change of position; excess heat; excess of cold; movements; cough; breath; inadequate analgesic; rest; impaired; lesion / tumor.	- Cannot describe the factors. - Can describe 1 to 2 of the factors. - Can describe 3 to 4 factors. - Can describe 5 to 7 of the factors. - Can describe 8 or more items.
	Uses non-analgesic relief measures (160504)	It is characterized in that the patient uses methods or techniques for prevention and / or treatment of pain that does not involve the administration of drugs[14].	To observe/ask whether patient uses methods or techniques for pain prevention and/or treatment that do not involve drug administration, such as: relaxation (decrease muscle tension); strategies to divert attention; application of cold and heat; performing exercises (stretching and resistance movements); restriction and limitation of movements when necessary; massage on body parts.	- Does not use measures. - Use 1 to 2 measures. - Uses 3 to 5 measures - Use 6 to 8 measures. - Uses 8 or more measures.
Sleep (0004)	Sleep quality (000404)	Usual sleep characteristics[15].	To observe/ask if the patient has characteristics that impair the quality of sleep, such as: difficulty falling asleep; wakes up several times a night; difficulty breathing; cold during sleep; presents pain during sleep; uses sleeping pills; presents daytime drowsiness.	- Presents 7 or more characteristics. - It has 5 to 6 characteristics. - Presents 3 to 4 characteristics. - Presents 1 to 2 characteristics. - You do not have any characteristic that decreases or impairs sleep.
Comfort Status (2008)	Physical well-being (200801)	General physical Comfort State [16].	To observe if the patient presents characteristics of physical well-being, for example: good physical mobility; comfortable; normal breathing; fatigue control; enjoy your food; absence of nausea vomiting; good sleep quality.	- Has no physical well-being characteristics. - Presents 1 to 2 characteristics of physical well-being. - Presents 3 to 4 characteristics of physical well-being. - Presents 5 to 6 characteristics of physical well-being. - Presents 7 or more characteristics of physical well-being.
Bem-Estar Pessoal (2002)	Psychological well-being (200803)	State in which the patient is well with himself and with others. Accepts the demands of life, knows how to deal with good and unpleasant emotions[17].	To observe if the patient presents characteristics of psychological well-being, for example: positive attitudes toward oneself; growth, development and self-realization; integration and emotional response; autonomy and self-determination; accurate perception of reality; environmental domain and social competence.	- Does not present characteristics of psychological well-being. - Presents 1 characteristic of psychological well-being. - Presents 2 characteristics of psychological well-being. - Presents 3 characteristics of psychological well-being. - Presents 4 or more characteristics of psychological well-being.
Personal Well-Being (2002)	Social support from family (200806)	There is a family member who, although a lay person, assumes responsibility for the physical and emotional needs of the other who is incapable of caring[19].	To ask/observe if the patient has a family that provides social support characterized by examples: administration of symptoms and comfort, with non-pharmacological approaches; search for information about the disease and treatment; use of strategies to solve problems; providing emotional support (affection, company, counseling, practical help, or financial assistance); support in the provision of direct care (hygiene and food, support in the provision of indirect care (accepting that it is the responsibility of the family to care for its members).	- Does not receive social support from the family. - Receives 1 type of social support from the family. - Receives 2 types of family social support. - Receives 3 types of family social support. - Receives all social support from the family.

To be continued

Chart 1 (concluded)

*RE	Indicators	Conceptual Definition	Operational Definition	Extent of operational definition for the application of the 5-point Likert Scale
Personal Well-Being (2002)	Ability to communicate needs (200812)	It is characterized by the patient's ability to communicate their needs[14]	To observe how the patient communicates his physical needs; psychological; spiritual; environmental and safety measures. This communication must be perceived, both by the patient's verbal and non-verbal language, in order to understand the patient's real needs. Observe signs, gestures, movements, crying, moaning, facies, silence, own language that can express messages.	- None, cannot communicate their needs. - Ability to communicate 1 of your needs (ex: communication through groaning, pain facies). - Ability to communicate 2 of your needs (ex: communication through groaning, pain facies and requests psychological support). - Ability to communicate 3 of your needs (ex: communicating through groaning, pain facies, requests psychological support and asks for mattress improvement). - Ability to communicate all your needs.
	Social relationships (200203)	It is characterized by how the patient relates to family, staff, and others[18].	To observe/ask how satisfied the patient is with relationships with family members, health care staff and others.	- No satisfaction, because the person does not have good relationship with everyone. - Little satisfaction, because the person does not have good relationship with most people. - Some satisfaction, because the person has good relationship with some people. - Much satisfaction, because the person has a good relationship with most people. - Complete satisfaction, because the person has good relationship with all.
Will to Live (1206)	Expression of determination to live/hope (120601/120602)	It is characterized by the patient expressing determination in the possibility of positive results related to events and circumstances of life[20].	To observe in the patient expressions of determination to live and of hope, as, for example: wants to perform strategies for symptom management; accepts treatment offered by staff; presents positive thoughts about life; makes plans for life after discharge; accepts family visits.	1 No expression of determination to live/hope. 2 Presents 1 expression of determination to live/hope. 3 Presents 2 expressions of determination to live/hope. 4 Presents 3 to 4 expressions of determination to live/hope. 5 Presents 5 or more expressions of determination to live/hope.
Client Satisfaction: Pain Management (3016)	Pain Level monitored regularly (301602)	It is characterized by the regularity with which nursing monitors the pain level of the patient[16].	To ask the patient about his degree of satisfaction with the nursing team regarding the regularity that the nurse monitors the level of pain.	- Unsatisfied, no monitoring. - Little satisfaction, very sporadic monitoring. - Some satisfaction, monitoring at certain times of the day. - Much satisfaction, monitoring at certain times of the day and night. - Complete satisfaction, monitoring at various times of the day and night.
Client Satisfaction: Pain Management (3016)	Actions taken to relieve pain/ provide discomfort (301604/302605)	It is characterized by actions implemented by the nursing team to relieve the pain/ discomfort of the patient[16].	To ask the patient how satisfied they are with nursing actions to relieve and prevent their pain, such as: The assessment of pain is performed; promotes adequate rest/sleep; encourages the patient to discuss their pain experience; controls environmental factors capable of influencing discomfort; reduces or eliminates factors that increase pain; respects medication administration at fixed intervals; offers non-pharmacological measures; notify the doctor if the measures are not successful.	- Unsatisfied, actions are not implemented. - Little satisfaction with the actions that are implemented. - Some satisfaction with the actions that are implemented. - Much satisfaction with the actions that are implemented. - Complete satisfaction with the actions that are implemented.

*Note: * RE = Results.*

DISCUSSION

The selection of the NOC outcomes for the assessment of patients in hospital palliative care, with Acute Pain and Chronic Pain Nursing Diagnoses, in addition to the conceptual and operational definitions construction, was shown to be important for guiding clinical practice, considering the specificity of care in this area. The study allowed to present the nursing results considered important, in the opinion of the specialists, who took into account their professional experience in the care of these patients, as in other studies[5-6,21].

Thus, the findings of the study present a further strategy to favor the assessment of patients with pain due to cancer, meeting the premise that nurses still need tools that may favor this important stage of oncological area care. In this sense, the use of the nursing process, together with the classification systems, especially the NOC, presents itself as an important ally[2,5].

Among the eight selected results, the majority are in the *Perceived Health* domain, which contains results that describe impressions about health and individual health care, as: *Pain Level, Comfort Status, Personal Well-Being, Client Satisfaction: Pain Management*[3]. These results include important indicators in the assessment of nursing to patients with cancer, such as those of pain reports, duration of pain episodes, facial expressions of pain, patient satisfaction with Pain Control, perception of their relationships, physical well-being and capacity to communicate needs, that is, their behaviors and impressions that can be observed when the patient is in pain[22-23]. Similar findings are in a study that conducted content validation of the NOC outcomes for Acute Pain ND in adult patients admitted to clinical, surgical, and intensive care units, where they were validated as the main ones of *Pain level, Pain control, Comfort level*[21].

For the assessment of other physiological aspects we selected the *Sleeping* result, from the *Functional Health* domain, which describes the capacity for performance in basic life tasks and the *Vital Signs* result of the Physiological Health domain, which describes the organic functioning[3]. Evaluating the pain of patients with cancer is a complex and somewhat subjective task; however, there are signs that may indicate their presence such as changes in blood pressure, heart rate and respiratory rate, as well as changes in sleep quality. The literature indicates that sleep pattern changes are frequent in patients with cancer who present pain, but the decrease in their intensity may contribute to the improvement of the quality of their sleep[24].

For the assessment of the psychological aspect, we selected the result *Will to Live*, from the *Psychosocial Health* domain, which describes the psychological and social functioning[3]. In addition, one study showed that patients with pain had higher rates of depression and could directly interfere in the determination to live, concluding that the search for pain relief is essential, as well as recognizing and evaluating patients' desire and effort to live[25].

The *Pain Control* result of the *Health Behaviors* domain, which includes attitudes, understanding and actions related to health and diseases; refers to the patient's actions for Pain Control, through the perception of their health condition[3]. This result includes important indicators for the nursing professional who, considering individual aspects of the client, seeks along with him adequate measures to promote the control of his pain[8].

A comparative analysis of the results selected by the specialists in this study and those listed as Essential for the Areas of Specialty in Nursing in one of the NOC chapters, it is verified that eight of them are similar to those described in the Oncology Nursing area and four in the Nursing Homes and Palliatives area. It follows that if we were to base the results listed for use according to these specialties rather than using the NOC-NANDA-I linkages chapter, we would have found similar results[3].

The development of conceptual and operational definitions of the indicators made targeting the NOC possible and, therefore, to provide a higher qualification in the nursing assessment of patients under palliative care with acute or chronic pain, by using more accurate parameters. It is known that adequate pain assessment subsidizes nurses for their decision making regarding the best care interventions[2,5].

Thus, the findings of this first stage of the research pointed to the selection of the main elements to assess cancer pain, with a set of results and indicators for application in the setting of palliative care to patients with cancer with Acute Pain or Chronic Pain ND which may help to systematize and qualify patient assessment and follow-up. However, it should be emphasized that these findings cannot be seen as the only option for patient assessment and care, since nurses need to consider their needs and specificities in the real clinical setting to base their judgment and decision-making.

Study limitations

Among the limitations of the study, it is pointed out the difficulty in obtaining the participation of a larger number of specialists, in addition to the limited scientific production on the construction of results concepts and NOC indicators for use in clinical practice and in the setting studied, which has become an obstacle to a deeper discussion and generalization of the findings.

Contributions to the sectors of Nursing, Health or Public Policy

Conducting research with the opinion of expert nurses subsidizes the qualification of the care process and deepens the knowledge of nursing taxonomies. Studies like this also favor the broadening of the use of taxonomies in clinical practice, the discussion of cases, seeking the improvement of skills and competences of academics and professionals, in order to promote clinical reasoning.

One of the great challenges of Nursing today is accurately the establishment of goals and assessment of results, in which this study may help. The findings can also motivate nurses and researchers to implement methods that allow the assessment of the effectiveness of nursing interventions, through NOC outcomes, and thus improve the level of evidence of nursing scientific production.

CONCLUSION

Expert nurses selected the NOC outcomes, which allowed the elaboration of an tool consisting of eight results and 19 indicators with conceptual and operational definitions built to assess the Acute Pain and Chronic Pain NDs in clinical practice, considering the specificity of nursing care to the patient in hospice care in a hospital environment;

the same points to the complexity of these patients' health status, who require the nurse's scientific knowledge, technical and interpersonal skills to assess and promote adequate relief to their pain.

It is thought that the use of this tool, in clinical practice, may favor pain assessment and indicate the effectiveness of the interventions for patients under palliative care, in order to obtain the relief of their discomfort and suffering. Researches with the use of nursing classifications are still incipient in clinical practice, demonstrating the need for more studies in different settings and specialties.

REFERENCES

1. Minson F, Assis FD, Vanetti TK, Junior JS, Mateus WP, Giglio AD. Interventional procedures for cancer pain management. Einstein [Internet]. 2012 [cited 2018 Oct 30];10(3):292-5. Available from: http://dx.doi.org/10.1590/S1679-45082012000300006
2. Mello BS, Massutti TM, Longaray VK, Trevisan DF, Lucena AF. Applicability of the nursing outcomes classification (NOC) to the evaluation of cancer patients with acute or chronic pain in palliative care. Appl Nurs Res [Internet]. 2016 [cited 2018 Oct 30];29:12-18. Available from: https://doi.org/10.1016/j.apnr.2015.04.001
3. Moorhead S, Johnson M, Maas ML, Maas ML, Swanson E. Nursing Outcomes Classification (NOC): measurement of health outcomes. 5th ed. Philadelphia: Elsevier, 2013. 776 p.
4. Diagnósticos de enfermagem da NANDA: definições e classificação 2012-2014. Porto Alegre (RS): Artmed; 2013. 1187 p.
5. Azzolin KO, Souza EN, Ruschel KB, Mussi CM, Lucena AF, Rabelo ERR. Consensus on nursing dagnoses, interventions and outcomes for home care of patients with heart failure. Rev Gaúcha Enferm [Internet]. 2012 [cited 2018 Oct 30];33(4):56-63. Available from: http://dx.doi.org/10.1590/S1983-14472012000400007
6. Silva MB, Barreto LNM , Panato BP, Engelman B, Figueiredo MS, Rodríguz-Acelas AL, Almeida MA.. Clinical indicators for evaluation of outcomes of impaired tissue integrity in orthopedic patients: consensus study. Int J Nurs Knowl [Internet]. 2018 [cited 2018 Oct 30]; Available from: https://doi.org/10.1111/2047-3095.12204
7. Ministério da Saúde (BR), Conselho Nacional de Saude. Resolucao n. 466, de 12 de dezembro de 2012. Diretrizes e Normas Regulamentadoras de Pesquisas Envolvendo Seres Humanos. Diario Oficial União: Repúblcia Federativa do Brasil; 2012 . Jun 13, Seção 1: p. 59.
8. Lunney M, McGuire M, Endozo N, McIntosh-Waddy D. Consensus-validation study identifies relevant nursing diagnoses, nursing interventions, and health outcomes for people with traumatic brain injuries. Rehabil Nurs [Internet]. 2010 [cited 2018 Oct 30];35(4):161-66. Available from: https://doi.org/10.1002/j.2048-7940.2010.tb00042.x
9. Silva MB. Aplicabilidade clínica dos resultados de enfermagem em pacientes com mobilidade física prejudicada submetidos à artroplastia total de quadril [Dissertation on the Internet]. Porto Alegre (RS): Universidade Federal do Rio Grande do Sul, Escola de Enfermagem, Programa de Pós-Graduação em Enfermagem; 2013 [cited 2018 Nov 3]. 109 p. Available from: https://lume.ufrgs.br/handle/10183/87223
10. Pamol MIR. A empatia e a ansiedade no julgamento das expressões faciais de dor [Dissertation on the Internet]. Évora (PT): Universidade de Évora, Escola de Ciências Sociais, Departamento de Psicologia; 2014 [cited 2018 Nov 3]. 114 p. Available from: https://dspace.uevora.pt/rdpc/bitstream/10174/12967/1/A%20Empatia%20e%20a%20Ansiedade%20no%20Julgamento%20das%20Express%c3%b5es%20Faciais%20de%20Dor.pdf
11. Almeida TM, Azevedo LC, Nosé PM, Freitas FG, Machado FR. Risk factors for agitation in critically ill patients.. Rev Bras Ter Intensiva [Internet]. 2016 [cited 2018 Oct 30];28(4):413-419. Available from: doi: 10.5935/0103-507X.20160074
12. De Carvalho RT. Dispneia, tosse e hipersecreção de vias aéreas. In: de Carvalho RT, Parsons HA. Manual de cuidados paliativos ANCP. 2 ed. São Paulo: Sulina, 2012. p. 151-67.
13. Sociedade Brasileira de Cardiologia. 7ª Diretriz Brasileira de Hipertensão Arterial. Arq Bras Cardiol [Internet]. 2016 [cited 2018 Nov 3];107(Supl. 3):1-103. Available from: http://publicacoes.cardiol.br/2014/diretrizes/2016/05_HIPERTENSAO_ARTERIAL.pdf
14. Mateus AM, Ferreira BMA, Monforte EMM, Ferreira FMB, Alvarenga MICSF, Silva MFV et al (coords). Dor: guia orientador de boa prática. [Internet]. Lisboa (PT): Ordem dos Enfermeiros; 2008 [cited 2018 Nov 3]. 57 p. Available from: https://suporte.ordemenfermeiros.pt/arquivo/publicacoes/Documents/cadernosoe-dor.pdf
15. Corrêa K, Ceolim MF. [Sleep quality in aged patients with peripheral vascular diseases]. Rev Esc Enferm USP [Internet] 2008 [cited 2018 Oct 30];42(1):12-18. Available from: http://dx.doi.org/10.1590/S0080-62342008000100002 Portuguese.
16. Cuidados paliativos oncológicos: controle de sintomas. Rev Bras Cancerol [Internet]. 2002 [cited 2018 Nov 3];48(2):191-211. Available from: http://www.inca.gov.br/rbc/n_48/v02/pdf/condutas3.pdf
17. Queroz NC, Neri AL. [Emotional intelligence and psychological well-being among middle-aged and old men and women] Psicol Reflex Crit [Internet]. 2005 [cited 2018 Oct 30];18(2):292-299. Available from: http://dx.doi.org/10.1590/S0102-79722005000200018 Portuguese.
18. Trevino KM, Fasciano K, Prigerson HG. Correlates of social support in young adults with advanced câncer. Support Care Cancer [Internet]. 2013 [cited 2018 Oct 30];21(2): 421-429. Available from: doi: 10.1007/s00520-012-1536-2
19. Rodrigues JSM, Ferreira NMLA, Caliri MHL. [Characterization of social support perceived for family to adult patient with cancer]. Medicina (Ribeirao Preto) [Internet]. 2013 [cited 2018 Oct 30];46(3):288-95. Available from: http://revista.fmrp.usp.br/2013/vol46n3/

AO_Caracteriza%E7%E3o%20do%20apoio%20social%20percebido%20pela%20familia%20do%20doente%20adulto%20com%20c%E2ncer.pdf Portuguese.

20. Rhondali W, Yennurajalingam S, Ferrer J, Chisholm G, Filbet M, Bruera E. Association between supportive care interventions and patient self-reported depression among advanced cancer outpatients. Support Care Cancer. 2014;22(4):871-9. doi: 10.1007/s00520-013-2042-x
21. Lucena AF, Holsbach I, Pruinelli L, Serdotte AFC, Mello BS. Brazilian validation of the nursing outcomes for acute pain. Int J Nurs Knowl [Internet]. 2013 [cited 2018 Oct 30];24(1):54-58. Available from: https://doi.org/10.1111/j.2047-3095.2012.01230.x
22. Cardoso MG. Classificação, fisiopatologia e avaliação da dor. In: de Carvalho RT, Parsons HA. Manual de cuidados paliativos ANCP. 2 ed. São Paulo: Sulina, 2012. p. 113-22.
23. Faller JW, Zilly A, Moura CB, Brusnicki PH. Multidimensional pain and symptom assessment scale for elderly people in palliative care. Cogitare Enferm [Internet].2016 [cited 2018 Oct 30;21(2):1-9. Available from: http://dx.doi.org/10.5380/ce.v21i2.45734
24. Rafihi-Ferreira RE, Soares MRZ. [Insomnia in patients with breast cancer]. Estudos de Psicologia [Internet]. 2012 [cited 2018 Oct 30];29(4):597-607. Available from: http://dx.doi.org/10.1590/S0103-166X2012000400014 Portuguese.
25. Wang HR, Kroenke K, Wu J, Tu W, Theobald D, Rawl SM. Predictors of cancer-related pain improvement over time. Psychosom Med [Internet]. 2012 [cited 2018 Oct 30];74(6):642-7. Available from: doi: 10.1097/PSY.0b013e3182590904