Validation of the defining characteristics of the nursing diagnosis impaired comfort in oncology

Validação das características definidoras do diagnóstico de enfermagem conforto prejudicado em oncologia

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Keywords

Nursing diagnosis; Nursing process; Nursing research; Validation studies; Palliative care

Descritores

Diagnóstico de enfermagem; Processos de enfermagem; Pesquisa em enfermagem; Estudos de validação; Cuidados paliativos

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Abstract

Objective: To validate the content of the defining characteristics of impaired comfort nursing diagnosis proposed by NANDA-I in patients under palliative care in oncology.

Methods: Methodological study according to the model of diagnostic content validation of Fehring, in a sample of 53 nursing experts. The Mann-Whitney test and Spearman's correlation coefficient (P < 0.05) were used to check if there were influences on expert judgment.

Results: We validated the contents of seventeen defining characteristics of the nursing diagnosis and seven other defining characteristics developed in this study. Nine defining characteristics were considered major, another twelve were considered minor and three were excluded. The total diagnostic score was 0.74.

Conclusion: To validate the content of the defining characteristics of the nursing diagnosis Impaired Comfort for patients in palliative care in oncology is a way of supporting the clinical nursing practice in their own theoretical knowledge.

Resumo

Objetivo: Validar o conteúdo das características definidoras do diagnóstico de enfermagem conforto prejudicado, proposto pela NANDA-I, em pacientes sob cuidados paliativos em oncologia.

Métodos: Estudo metodológico, segundo o modelo de validação de conteúdo diagnóstico de *Fehring*, numa amostra de 53 enfermeiros peritos. Realizado o teste de *Mann-Whitney* e o coeficiente de correlação de *Spearman* (p-valor <0,05) para verificar se houve influências no julgamento dos peritos.

Resultado: Validou-se o conteúdo de dezessete características definidoras, do diagnóstico de enfermagem em questão, e mais outras sete características definidoras elaboradas no presente estudo. Nove características definidoras foram consideradas maiores, outras doze foram consideradas menores e três excluídas. O escore total do diagnóstico foi 0,74.

Conclusão: Validar o conteúdo das características definidoras do diagnóstico de enfermagem Conforto Prejudicado para pacientes em cuidados paliativos na oncologia é uma maneira de alicerçar a prática clínica do enfermeiro em conhecimentos teóricos próprios da profissão.

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Introduction

Some diseases have stages that lead people to approach death, since they have serious medical conditions with high probability of death. Among them, cancer, understood as a set of cells formed from an uncontrolled growth, invading the tissues and organs of the various regions of the body.⁽¹⁾

The World Health Organization (WHO) estimates that in 2030, the world will have the incidence of 21.4 million cancer cases and 13.2 million deaths. (2) In Brazil, it is estimated that about 576,000 new cases for the biennium 2014-2015. (3)

In its recommendations for the prevention and control of cancer, WHO establishes the provision of palliative care, involving the assistance promoted by a multidisciplinary team, which aims to improve the patient's and their families quality of life, before a disease that threatens life through the prevention and relief of suffering, early identification, effective and efficient evaluation and treatment of pain and other physical symptoms, social, psychological and spiritual. (2) Despite the negative or passive connotation of palliative term, the approach and treatment are highly active, mainly in cancer patients in advanced stages.

The Nursing Diagnosis (NDs), as clinical judgements that support the choice of nursing interventions, guide the definition of interest for the research and work of nurses and their team. From the disease and vital processes several diagnostic are chosen and making use of the taxonomy of the North American Nursing Diagnosis Association International (NANDA-I) investigated in this study as the "Impaired Comfort".

Present in Taxonomy II since 2008, the Impaired Comfort is allocated in the domain 12 (Comfort), it is defined as the "perceived lack of feeling of comfort, relief and transcending the physical, psycho-spiritual, environmental, cultural and social factors". ⁽⁴⁾ By broader sense of the concept, one can already expect the alignment of the responses and experiences of patients in palliative care in oncology. However, for diagnoses purposes,

the most comprehensive notions are not enough, and what is required is the ongoing effort to validate diagnosis.

Among the required procedures for validation of a Nursing Diagnosis (ND) there is the content validation. This validation seeks to analyze the components of the nursing diagnosis and the adequacy of its definitions supposedly developed with the concept analysis. Each ND is composed of a title (diagnostic statement), definition, defining characteristics and related factors or risk factors. This set of elements, which form the whole or part, will be validated by the content validation. (5)

The defining characteristics (DCs) are observable or reportable signs and symptoms representing the presence of a diagnosis and are of particular interest as the necessary clues to the diagnosis development. (4)

The minimum requirement for a ND to be in NANDA-I taxonomy is its consistent theoretical argument, which means that diagnoses approved for classification must be validated in order to ensure a practical and accurate application. The ND validation describes the degree to which a group of DCs describes a reality observed in the interaction with the patient. These are valid when actually occur and can be identified in a clinical situation. (6,7)

The method of diagnosis content validation proposed by Fehring has received some criticism in particular due to its difficulty of capturing the number of experts needed for more reliable conclusions, and its tendency to give greater weighting expertise to academic training instead of clinical experience. Thus, the characteristics related to the type and duration of academic training and experience in the field can be study variables in validation researches, not just considered methodological criteria. (5)

This study aims to validate the contents of DCs and NDs Impaired Comfort in adult patients under palliative care in oncology, according to the assessment of expert nurses, and verify if the judgement of these nurses was influenced by factors that aligned with the expertise in the

area, namely: age, working time as a nurse, working time in oncology, professional practice time in palliative care, participation in Graduate Studies on Nursing Process (NP), ND and/or palliative care, conducting research on NP, ND and/or palliative care in oncology, performance of ND as a step for NP and use of NANDA-I taxonomy in professional practice.

Methods

This is a methodological study that used the validation model of diagnostic content proposed by Fehring. This model is based on obtaining nurses expert opinions about the degree to which certain DCs are indicative of a diagnosis. Before it is applied, the author recommends the performance of a literature review to provide theoretical support for both the ND and for the DCs, with the possibility that additional DCs could be added to the official list established by NANDA-I during this process. (7)

The DCs of Impaired Comfort diagnosis described by NANDA I include: anxiety, crying, inability to relax, restlessness, irritability, moaning, fear, alteration in sleep patterns, discontent with situation, uneasy in situation, feeling of hunger, itching, feeling hot, feeling cold, feeling of discomfort, distressing symptoms and sighing. (4)

From the literature review on Comfort Theory, proposed by Kolcaba (theoretical basis of the ND), seven other DCs were elaborated, namely: insecurity, physical expressions of discomfort, feelings of disregard, spiritual suffering, feeling limited, discouragement, not feeling comfortable in the environment.

The criteria for selection of nursing experts in this study were adapted from the model proposed by Fehring, based on study criteria proposed by Silva and Gorini. (7,8) Professionals that obtained a minimum score of five points were included in the final assessment criteria, in order to include clinical nurses who provide care to adult cancer patients in palliative care in oncology and who have knowledge of NANDA-I taxonomy and researchers in the areas of oncology, palliative care, NP and/or ND.

Thus, PhDs, master's, specialization in oncology nursing by the Brazilian Society of Nursing Oncology (SBEO), residence in oncology or palliative care, specialization in oncology or palliative care, or the use of diagnostic terminology of NANDA-I in clinical practice totaled three points each.

The current minimum practice of one year with palliative care patients and one research or article published about nursing process, nursing diagnosis or palliative care totaled two points each.

An abstract published about nursing process, nursing diagnosis, palliative care or participation in courses, symposiums and conferences (with minimum workload of 4 hours) on these same topics totaled one point each.

Nurses experts who answered the data collection instrument after the deadline were excluded. We held contact through e-mail or in person, with researchers in the areas of oncology, palliative care, NP and/or ND, with professionals working in hospitals which have a nursing ward for palliative care for cancer patients, alumni of specialization and residence programs in oncology and nurses who have the Certificate of Expert by SBEO inviting them to participate in the research.

The data collection instrument consisted of an electronic form containing, in the first part, questions about the characterization of the sample and, the second part, the Impaired Comfort description followed by a Likert scale for each of the 17 DCs of the diagnosis, and the seven DCs developed in this study, and its conceptual and operational definitions.

The conceptual definition represents the abstract or theoretical significance of the studied concepts. While the operational definition of a concept specifies operations that researchers should do to collect the information, it also indicates how the concept is found in practice, this way it must be congruent to the conceptual definition. (9)

Out of the six steps from the Fehring Content Validation Diagnostic technique, ⁽⁷⁾ five were developed. At first, the nurses assigned a value from one to five, in Likert scale, every DC towards its conceptual and operational definitions. The value was indicative of the increasing degree of agreement with the adequacy of the

diagnostic characteristic. The second step was optional - the Delphi technique for consensus responses of expert nurses - and it was not performed in this study because the repeated rounds of questions required by the technique could involve the loss of individuals in the sample.

In the third step we calculated the weighted mean (WM) of the grades given by nurses for each of the DCs, considering the weights: 1=0, 2=0.25, 3=0.5, 4=0.75, 5=1. In the fourth step, we discarded the DCs with weighted mean lower than 0.5. In the fifth step, the DCs with weighted mean greater than or equal to 0.8 were considered major defining characteristics. These features must be present to confirm the diagnosis, namely diagnosis state that really exists. Defining characteristics with a weighted mean between 0.5 and 0.8 are classified as minor.

Finally, a total score was obtained by the summing of the scores for each individual DC and divided by the total number of diagnostic characteristics to be tested. This score indicates the validity of a given defining characteristic as valid content of nursing diagnosis. The DCs with lower weighted means and/or equal to 0.5 should be excluded from the total score.

In the data analysis, the characterization of the population was carried out by means of descriptive statistics. Correlations between defining characteristics and possible continuous quantitative variables of age, as the nurse's working experience, work experience in oncology and length of professional practice in palliative care were estimated using the Spearman correlation coefficient (P value <0.05).

Comparisons involving categorical variables "conducting graduate studies in NP", "ND and palliative care", "conducting research or article published on NP", "ND or palliative care in oncology", "performance of ND as step of NP and the use of NAN-DA-I taxonomy professional practice" were carried out using the non-parametric Mann-Whitney test.

In all analysis, a significance level of 5% was considered and the SAS software version 9.4 was used. The study was registered in Brazil under the Platform Presentation of Certificate number to Ethics Assessment (CAEE) 23173713.0.0000.5404.

Results

Fifty-six nurses participated in the study, three (5.36%) were excluded from the sample, since they did not obtain the minimum score of the inclusion criteria, totaling a sample of 53 nursing experts. Table 1 describes the characteristics of the sample.

The scores of expert nurses in the inclusion criteria ranged from five to 21, mean of 9.49 and standard deviation of 3.84.

The mean working experience as a nurse is 15.98 years (standard deviation of 11.85 years), the mean working experience as a nurse in oncology is 8.77 years (standard deviation of 11.17 years) and the mean working experience in palliative care in oncology was 5.15 years (standard deviation of 7.53 years).

There were nine DCs which were identified as major (WM ≥0,80), they are: physical expressions of discomfort (WM=0.90), anxiety (WM=0.87), feelings of anguish (WM=0.86), fear (WM=0.84), feelings of discomfort (WM=0.83), restlessness (WM=0.82), inability to relax (WM=0.81), alteration in sleeping patterns (WM=0.81), feeling limited (WM=0.80). It is noteworthy that the DCs physical expressions of discomfort (with the highest mean among the DCs) and feeling limited were prepared in this study.

Twelve DCs were considered minor (WM <0.80 and> 0.50), they are: discouraged (WM=0.77), crying (0.75), insecurity (WM=0.75), spiritual suffering (WM=0.73), discontent with situation (WM=0.71), irritability (WM=0.68), uneasy in situation (WM=0.68), moaning (WM=0.67), sighing (WM=0.62), feeling of discomfort (WM=0.60), feeling cold (WM=0.52) and feelings of disregard (WM=0.52).

The DCs itching (WM=0.47), feeling hot (WM=0.47) and feeling of hunger (WM=0.44) were excluded as they obtained weighted mean lower than 0.5. The total score was found to be 0.74. Twelve DCs (57.14%), considering the characteristics proposed by NANDA I or by this study, obtained weighted mean above this value.

Table 2 presents the statistically significant correlations found in this study, estimated by the Spearman correlation coefficient between the DCs

Table 1. Characteristics of the sample

Variable	n(%)
Gender	
Female	50(94.34)
Male	3(5.66)
Age groups (years)	
20-30	14(26.41)
31-40	16(30.19)
41-50	9(16.98)
51-60	13(24.53)
Over 61	1(1.89)
Title	
Graduate studies in Nursing process	8(15.09)
Graduate studies in Nursing diagnosis	8(15.09)
Graduate studies in Palliative care	13(24.53)
Certificate in Nursing Oncology SBEO	6(11.32)
Certificate in oncology or palliative care	19(35.85)
Residence in oncology or palliative care	3(5.66)
Master's degree	22(41.51)
PhD-Research and abstract in nursing process or palliative care	15(28.30)
Research	27(50.94)
Abstract	19(35.85)
Use Nursing Process in their professional practice	50(94.34)
Use Nursing diagnosis as step of Nursing process	
No	11(20.75)
Yes	38(71.70)
Did not answer	4(7.55)
Know NANDA-I Taxonomy	53(100.00)
Use NANDA-I Taxonomy	38(71.70)

of ND in study and age variables, nurse experience time in oncology, and nurse experience time in palliative care. We sought in this analysis, to verify influences of professional experience in the judgement of DCs by expert nurses, especially in the subjective DCs.

As showed in table 2, for the defining characteristics that the statistical significance was found, the correlation was always positive.

Using the Mann-Whitney test, it was found that there were no significant differences between the means of the DCs judgements by the experts who carried out or not a graduate study in palliative care and those who performed or not some research about NP, ND or palliative care.

Table 3 presents the significant comparisons found in this study, between the means of DCs judgment and performing or not graduate studies on NP or ND, the use or not of NANDA I taxonomy in professional practice and the performance or nonperformance of ND as a NP step.

Table 2. Significant spearman correlations between defining characteristics of the nursing diagnosis Impaired Comfort and its variables

Defining characteristics	Age	Working experience time as Nurse	Working experience time in oncology	Professional practice in palliative care	
Anxiety	-	-	-	0.300/(0.028)*	
Feelings of discomfort	0.306/(0.25)*	0.289/(0.035)*	0.365/(0.007)*	0.317/(0.020)*	
Feeling hot	-	-	0.337/(0.013)*	-	
Feelings of disregard	-	-	0.410/(0.002)*	-	
Spiritual suffering	0.271/(0.049)*	-	-	-	
Fear	-	-		0.291/(0.034)*	

^{*}Significant correlations p-value <0,05

Table 3. Significant comparisons between defining characteristics and variables using NANDA-I taxonomy in professional practice, graduate studies in nursing diagnosis, graduate studies in nursing process and implementation of the nursing diagnosis as a step of the nursing process

Defining characteristics	Variable		n	Weighted mean	Standard deviation	p-value*
Irritability	Use of NANDA-I taxonomy	No	15	0.55	0.25	0.0216
		Yes	38	0.74	0.26	
Insecure	Graduate studies in Nursing diagnosis	No	45	0.79	0.22	0.0172
		Yes	8	0.50	0.33	
Sighing	Graduate studies in Nursing diagnosis	No	45	0.65	0.25	0.0491
	diaduate studies in Nursing diagnosis	Yes	8	0.44	0.26	
Feelings of disregard	Graduate studies in Nursing process	No	45	0.49	0.30	0.0458
		Yes	8	0.72	0.21	
Anxiety	Graduate studies in Nursing diagnosis	No	11	0.98	0.08	0.027
		Yes	38	0.84	0.20	
Crying	Craduate studies in Nursing diagnosis	No	11	0.89	0.17	0.0383
	Graduate studies in Nursing diagnosis	Yes	38	0.72	0.25	
Physical expression of discomfort	Graduate studies in Nursing diagnosis	No	11	1.00	0.00	0.0328
		Yes	38	0.87	0.22	

^{*}p-value obtido por meio do teste de Mann-Whitney

Discussion

The selection of experts is one of the finer points of a diagnostic content validation study and despite Fehring selection proposal is widely described in literature, it is difficult to use in its entirety, which led the authors to implement adjustments to the original model.⁽¹⁰⁾

Such modifications were effective in trying to promote expert nurses sampling with care and research profiles with knowledge of NANDA-I taxonomy, meeting the Fehring recommendations to contemplate professionals with Masters' degree and who have research in the diagnostics studied.

Thus, the findings related to masters' and PhDs in areas relevant to the present study support the adequacy of the sampling criteria considered as important to validate a nursing diagnosis. The publication in NP, ND or palliative care was also found for a majority of experts as research or abstract. Associated with title data, the publication data allowed us to infer that the experts in continuing education process can maintain a consumption standard of scientific production in the area and produce on it. Whereas the nursing diagnoses are in continuous development, the findings are satisfactory.

In this study, almost all of the sample of experts are female which is compatible with the overall distribution in the profession. The historical and cultural heritage in which care is part is linked to the female image and despite the number of men in nursing is growing over time, it is still possible to observe discrepancies, such as found between the number of women workers compared to men. (11) However, there is no published evidence that the gender of the Nursing diagnostician can interfere with the content of the prepared diagnosis.

Developing palliative care in Brazil is a challenge that involves the qualification of health professionals, awareness of public service administrators on the importance of this type of care and improvements in public access. It is still common for health professionals and family members of patients to consider such care as applicable at the moment of imminent death, and the transition to this type of care is a continuous, gradual and progressive process. (2,12)

The low mean years of practice in palliative care compared to working experience in oncology of the expert nurses reflects this difficulty in the national scenario. However, it was found in this study that there is a search for theoretical knowledge that can incorporate palliative care when considering performance of graduate studies (including masters and PhD) and published research on the topic. (13)

It is also highlighted that only 11.32% of the sample had the Certificate of specialist nurse in oncology given by the Brazilian Society of Oncology Nursing (SBEO), this body was founded in 1988 and aims to represent the scientific, cultural and professional interests of its members representing the oncology nursing in Brazil before national and international bodies. (14)

In Brazil, the taxonomy of NANDA-I was introduced in a Nursing publication in Portuguese in 1990 by nurses of the *Universidade Federal da Paraíba* by the professor Dr. Marga Coler. It is noted in this study that although relatively recent, NANDA-I taxonomy introduction in the country was recognized by all nurses experts and applied in the preparation of the nursing diagnosis for a large portion of the sample.⁽¹⁵⁾

Nine DCs, considered major (physical expressions of discomfort, anxiety, distressing symptoms, fear, discontent with situation, restlessness, inability to relax, alteration in sleep patterns and feeling limited) validates the ND Impaired Comfort in patients in palliative care and oncology, that is, it is asserted that this diagnosis actually exists in this population.

To understand the nature of these findings, we chose to use the definition of Impaired Comfort as "perceived lack of feeling of comfort, relief and transcending the physical, psycho-spiritual, environmental, cultural and social factors"; which reflects a more comprehensive view of the individual. ⁽⁴⁾ Also, guided by the Kolcaba Theory of Comfort, there are situations of patients in palliative care in oncology to contemplate an approximate way the problems that are experienced. ^(2,6)

In this nursing theory comfort occurs in four contexts. The first context is the physical, related to the physical conditions of the individual. The second context is the psycho-spiritual, which combines the mental, emotional and spiritual components of being, and corresponds to everything that gives meaning to life of an individual. It includes self-esteem, self-concept, sexuality and relationships with an order or superior being (e.g. God). The third context is social, corresponds to interpersonal, family, social and cultural relations. It includes finances, education, social support, traditions and language. The fourth context is environmental, referring to the conditions and environmental influences, encompasses light, sound, color, temperature and natural versus synthetic elements. (16)

It was found that some of the DCs considered major by expert nurses only reflect physical aspects of patient comfort (physical expressions of discomfort, inability to relax, altered sleep patterns). Mahon and McAuley showed in their study on personal perceptions of oncology nurses about palliative care that the main focus of these professionals was the control of physical symptoms, although advanced cancer also brings impairments of psychological, spiritual, cultural and social order. (17) Maybe such a finding is due to the fact that changes in physical comfort are more evident to third party verification, it does not require the patient to verbalize a lived situation or depends on the sensitivity of the professional in capturing changes in psycho-spiritual, social, environmental or cultural comfort and it is still difficult to be hidden for any reason by the patient.

For the major subjective defining characteristics of "anxiety", "discontent with situation" and "feeling limited" signal the verbalization of a patient's feelings and not necessarily a finding of nurses. Thus it shows clearly the presence ND impaired comfort, even though it is not based on data that is observable and of physical nature.

"Fear" and "anxiety", also considered major characteristics, showed a psycho-spiritual aspect of comfort, but also have physical and behavioral expressions that make them ease to be perceived by the nursing professional. Moreover, cancer brings with it awareness of the possibility of death that can be accompanied by anxiety and fears, influencing the dimensions of comfort. The meaning and the

meaning of death depends on the stage at which the patient is vital in the development process. This view also considers the life history, their experiences and learning of their physical, psychological, social and cultural conditions interfering with comfort. (18)

The defining characteristic "physical expressions of discomfort" was developed by the authors and in addition to this study, obtaining the highest weighted mean. It is believed that this result is due to this DC intuitively be characteristic of discomfort as conceptual and operational settings for easy identification, and because it has a semantic proximity and almost common sense accordance between discomfort and impaired comfort. This is due to the high score given by expert nurses.

The DCs also developed in this study, "insecurity", "feelings of disregard", "spiritual suffering", "discouraged" and "feeling uncomfortable with the environment" were developed from literature review, to meet the psycho-spiritual, environmental and social Impaired Comfort diagnosis, however, all of them were considered minor (weighted mean <0.80 and> 0.50) by the experts. They are characteristics that provide a secondary evidence supporting the diagnosis, as well as the characteristics discontent with situation, irritability, unease in situation, moaning and sighting, proposed by NANDA-I.

The characteristics "itching", "feeling hot" and "feeling of hunger" were excluded due to weight mean below 0.5, that is, they are not indicative of the studied diagnosis.

Feeling of hunger conceptually defined in this study as the desire for food generated by a sense that forms by the lack of food in the stomach and operationally as exposure of desire/need to eat is not a common discourse among cancer patients experiencing terminal illness. The anorexia and cachexia are common in these patients and most often is the natural evolution of the disease. Thus, excluding this DC makes sense in the context of palliative care in oncology.

Itching in patients with cancer is also uncommon, this symptom is cited as a paraneoplastic manifestation of malignant tumors of the nasopharynx, prostate, stomach, breast and uterus. (19) Thus, the DC itching report was also rejected.

Twelve defining characteristics considering the characteristics proposed by NANDA-I or the present study obtained weighted mean above the total score that was 0.74. It is evident then, that the DCs are most relevant in the identification possibilities in the Impaired Comfort diagnosis in patients in palliative care in oncology.

The influences of positive correlation between age, working experience time as a nurse in oncology and length of professional practice in palliative care in considering the validity of "anxiety", "feeling uncomfortable with the environment", "feeling hot", "feelings of disregard", "spiritual suffering" and "fear" for the diagnosis may have several explanations.

The clinical experience time is a factor to assume the highest professional experience and infer its influence on decision-making and the findings show that this is a relevant factor in judging defining characteristics involving psycho-spiritual, social, environmental and cultural aspects.⁽¹⁷⁾

The time of experience can be considered a facilitator of interpersonal relationships among patients in palliative care and nursing professionals who have committed to empathic communication as it enhances the ability to listen, perceive, understand, identify needs and then plan actions. (18) However, it is emphasized that the maintenance of this communication capability requires a commitment to improving the professional performance that may decrease due to the increase of the total work environment, as with professionals who are working a long time in the same work environment.

The expertise is acquired as the nurses experience different situations with cancer patients in palliative care. The newly trained nurses tend to be aware of the details, perception reaches a peak tracking a plateau and a conditional decrease, similarly to time. Experts are not infallible and tend to make mistakes related to omission of important information, tunnel vision and tendency to chance, because they have subjectivity and understanding of the cognitive nature of making subjective decision, which leads to taking measures to increase the value of these decisions. (20)

The DCs presented objective and subjective aspects as related to time. For comparison of the variables: conducting research on nursing process, conducting graduate studies in palliative care in oncology, nursing process or nursing diagnosis, making the nursing diagnosis as a step of the nursing process and use of the NANDA- I taxonomy in professional practice, we found significant differences in the DCs judgements.

The experts who did not conduct graduate studies in NDs showed higher mean judgment of DCs insecurity and sighing, statistically significant compared those who had graduate studies. The same happened in the DC judgement of anxiety among experts who did not have a graduate degree in NP. Experts who did not perform the DCs as a step of NP had higher mean in DC judgement of anxiety, crying and physical expressions of discomfort statistically significant compared to the experts who performed ND. Experts using NANDA-I taxonomy obtained higher mean in the judgement of DC irritability compared to nurses who did not use the taxonomy. Although they are considered statistically significant these comparisons would not change the situation of DCs judgement as major, minor or removed.

It stands out in the analysis of the DC "sighing", nurses who held a graduate degree in nursing diagnosis showed a mean that would determine the exclusion of this DC (0.44), as the characteristic is observed as of liberal experts without training. It is considered that these professionals are more apt to perform a more accurate judgment in relation to the experts who did not have such qualification and therefore, the exclusion of this DC is feasible, proposed by NANDA-I, for the population of patients in palliative care in oncology.

The reverse happens with the DC "feelings of disregard", nurses who did not have a graduate degree in nursing process had a mean that would determine the exclusion of this DC (0.49), however, the assessment of the experts who carried out this type of specialization such DC had a mean 0.72, ranking it as minor. Classification in

which the DC obtained as final, with the border-line mean 0.52.

This study reveals that variables related to the professional who diagnoses can interfere with her/his consideration of the validity or otherwise of a given defining characteristic. This points to the need to carefully consider the existence of variables related to training, expertise and experience in diagnostic validation studies by experts. It is proposed that consideration of the DCs "physical expressions of discomfort", "feeling limited" and the disregard of the DCs "itching", "feeling hot", "feeling of hunger" and "sighing" from the official NANDA I list of DCs for Impaired Comfort in palliative care in oncology.

Conclusion

The defining characteristics validated in this study were as major: physical expressions of discomfort, anxiety, distressing symptoms, fear, discontent with situation, restlessness, inability to relax, altered disturbed sleep, feeling limited; validated as minor: discouragement, crying, insecurity, spiritual suffering, reporting lack of satisfaction with the situation, irritability, feeling of discomfort, mourning, uncomfortable with the environment, feeling cold and feelings of disregard. DC excluded were itching, feeling hot, feeling of hunger and sighing.

The judgment of expert nurses was positively influenced by the factors age, work experience time in oncology, work experience as nurse, professional practice time in palliative care in defining characteristics: anxiety, uncomfortable with the environment, feeling hot, feelings of disregard, spiritual suffering and fear.

Significant differences were verified between the means of DCs judgements and performing or not graduate studies on the nursing process or nursing diagnosis, the use or not of NAN-DA I taxonomy in professional practice and the performance or nonperformance of the nursing diagnosis as a step of the nursing process in the following defining characteristics: sighing, insecurity, anxiety, crying, physical expressions of discomfort and irritability.

Collaborations

Gonçalves MCS and Duran ECM declare that contributed to the study design, analysis, data interpretation, article writing, relevant critical review of the intellectual content and approval of the version to be published. Brandão MAG collaborated in writing, relevant critical review of the intellectual content and final approval of the version to be published.

References

- Brasil. Ministério da Saúde. Secretaria de Atenção à Saúde. Instituto Nacional de Câncer José Alencar Gomes da Silva. ABC do cancer: abordagens básicas para o controle do cancer [Internet]. Rio de Janeiro: INCA; 2012. [citado 2014 Maio 10]. Disponível em: http://bvsms.saude.gov.br/bvs/publicacoes/inca/abc_do_ cancer_2ed.pdf.
- World Health Organization. National cancer control programmes: policies and managerial guidelines. WHO; 2002 [Internet]. [cited 2013 Apr 2]. Avaliable from: http://www.who.int/cancer/media/en/408.pdf.
- Brasil. Ministério da Saúde. Secretaria de Atenção à Saúde. Instituto Nacional de Câncer José Alencar Gomes da Silva. Estimativa 2014 - Incidência de cancer no Brasil Rio de Janeiro: INCA; 2014. [citado 2014 Maio10]. Disponível em: http://www.inca.gov.br/estimativa/2014/index.asp.
- North American Nursing Diagnosis Association. Diagnóstico de Enfermagem da NANDA Internacional: definições e classificações (2012-2014)]. São Paulo: Artmed; 2013. p. 546-7.
- Lopes MV, Silva VM, Araujo TL. [Validation of nursing diagnosis: challenges and alternatives]. Rev Bras Enferm.2013;66(5):649-55. Portuguese.
- Garcia TR. [Methodological models for nursing diagnoses validation]. Acta Paul Enferm. 1998; 11(3):24-31. Portuguese.
- Fehring R. Methods to validate nursing diagnoses. Heart Lung. 1987;16(6):625-629.
- 8. Silva PO, Gorini MI. Validation of defining characteristics for the nursing diagnosis of fatigue in oncological patients. Rev Lat Am Enfermagem. 2012; 20(3):504-10.
- Silva VM, Lopes MV, Araujo TL, Beltrão BA, Monteiro FP, Cavalcante TF, et al. Operational definitions of outcome indicators related to ineffective breathing patterns in children with congenital heart disease. Heart Lung. 2011;40(3):70-7. 11.
- Galdeano LE, Rossi LA. Validação de conteúdo diagnóstico: critérios para seleção de expertos. Cienc Cuid Saude; 2006:5(1):60-6.
- Coelho EA. Gender, health and nursing. Rev Bras Enferm. 2005; 58(3): 345-8.

- 12. Burlá C, Py L. Palliative care: science and protection at the end of life. Cad Saúde Pública. 2014: 30(6):1139-41.
- 13. Floriani CA. Palliative care in Brazil: a challenge to the health-care system. Palliative Care. 2008; 2:219-24.
- Moreira MC, Camargo TC, Carvalho V, Figueiredo CF, Rosa LD, Bolzan MF. [Research in oncological nursing: a study of the publications in national periodicals]. Texto Contexto Enferm. 2006;15(4): 595-600.
- 15. Barros AL. Classification of nursing diagnoses and interventions: NANDA and NIC1. Acta Paul Enferm. 2009;22(Esp);864-7.

- 16. Kolcaba KY. A taxonomic structure for the concept comfort. J Nurs Sch. 2007; 23(4):237-240.
- 17. Mahon MM, McAuley WJ. Oncology nurses' personal understandings about palliative care. Oncol Nurs Forum. 2010; 37(3):141-50.
- Araújo MM, Silva MJ. Communication with patients in palliative care: favoring cheerfulness and optimism. Rev Esc Enferm USP. 2007; 41(4):668-74.
- Santos FS. Cuidados paliativos: diretrizes, humanização e alívio dos sintomas. São Paulo: Atheneu; 2011.
- 20. Dror IE. The ambition to be scientific: human expert performance and objectivity. Sci Justice. 2013; 53(1):81-2.