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Veröffentlichungsversion / Published Version
Zeitschriftenartikel / journal article

**Empfohlene Zitierung / Suggested Citation:**
Pereira, D. T. d. S., Andrade, L. L. D., Agra, G., & Costa, M. M. L. (2015). Therapeutic conducts used in pain management in oncology. *Revista de Pesquisa: Cuidado é Fundamental Online*, *7*(1), 1883-1890. https://doi.org/10.9789/2175-5361.2015.v7i1.1883-1890

Federal University of Rio de Janeiro State

Journal of Research Fundamental Care Online

ISSN 2175-5361
DOI: 10.9789/2175-5361

RESEARCH

# Condutas terapêuticas utilizadas no manejo da dor em oncologia

Therapeutic conducts used in pain management in oncology

Conductas terapéuticas utilizadas en el manejo del dolor en oncologia

Djalisson Tayner de Souza Pereira [1] , Lidiane Lima de Andrade [2] , Glenda Agra [3] , Marta Miriam Lopes Costa [4]

## ABSTRACT

**Objective:** To identify the main therapeutic modalities used by the nursing staff in the treatment of pain, the consistency of their use, and degree of satisfaction in institutionalized oncology patients. **Method:** This was a descriptive-exploratory study carried out in a reference hospital in cancer treatment with a sample was composed of 50 patients. Data were collected through a questionnaire and analyzed by descriptive statistics and measures of association between variables using the Chi-square test. **Results:** Pharmacological and non-pharmacological conducts were implemented in the management of pain in Oncology; however, nursing professionals have restricted their practice to the administration of painkillers that is described by most of the participants in the study as the most satisfactory conduct for pain relief. **Conclusion:** Pain control in oncology has been a challenge for the clinical practice of nursing professionals taking into consideration the magnitude of the problem and the subjectivity of the painful phenomenon. **Descriptors:** Nursing, Oncology nursing, Chronic pain.

## RESUMO

**Objetivo:** Identificar as principais modalidades terapêuticas utilizadas pela equipe de enfermagem no tratamento da dor, a coerência de sua utilização e o grau de satisfação dos pacientes oncológicos institucionalizados. **Método:** estudo exploratório-descritivo, realizado em um hospital referência no tratamento de câncer, cuja amostra foi composta de 50 pacientes. Os dados foram obtidos por meio de um questionário e analisados por estatística descritiva e por medidas de associação entre variáveis, utilizando-se o teste qui-quadrado. **Resultados:** no manejo da dor em oncologia, são implementadas condutas farmacológicas e não farmacológicas, no entanto, os profissionais de enfermagem têm restringido sua prática à administração de analgésicos, sendo descrita pela maioria dos participantes da pesquisa como a conduta mais satisfatória para o alívio da dor. **Conclusão:** o controle da dor em oncologia tem sido um desafio para a prática clínica dos profissionais de enfermagem, levando-se em consideração a magnitude do problema e a subjetividade do fenômeno doloroso. **Descritores:** Enfermagem, Enfermagem oncológica, Dor crônica.

## RESUMEN

**Objetivo:** Identificar las principales modalidades terapéuticas utilizadas por el equipo de enfermería en el tratamiento del dolor, la coherencia de su uso y la satisfacción de los pacientes oncológicos institucionalizados. **Método:** Estudio exploratorio-descriptivo en hospital de referencia en tratamiento de cáncer, cuya muestra consistió en 50 pacientes. Los datos fueron recolectados a través de cuestionario y analizados mediante estadística descriptiva y medidas de asociación entre variables y prueba de chi-cuadrado. **Resultados:** En el manejo del dolor en oncología, son implementadas conductas farmacológicas y no farmacológicas, sin embargo, los profesionales de enfermería han restringido su práctica a la administración de analgésicos, descrito por la mayoría de los encuestados como conducta más satisfactoria para el alivio del dolor. **Conclusión:** El control del dolor en oncología ha sido un reto para la práctica clínica de enfermería, teniendo en cuenta la magnitud del problema y la subjetividad del fenómeno doloroso. **Descriptores:** Enfermería, Enfermería oncológica, Dolor crónico.

Excerpted from the monography "PAIN IN ONCOLOGY: PROSPECTS FOR HOSPITALIZED PATIENTS", Education and Health Center from the Federal University of Campina Grande, 2013.

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## INTRODUCTION

Cancer is a chronic-degenerative disease characterized by the disordered growth of cells that multiply quickly, determining the formation of tumors that can invade other tissues and organs directly and/or through lymphatic and blood pathways of dissemination causing metastasis.[1] Patients affected by cancer undergo various discomforts, from the diagnostic tests until the execution of conventional therapies. Among the main discomforts, pain is considered the most feared, especially in the the most advanced stages of the disease.

Pain in oncology refers to an expression widely used in healthcare and may be related to the underlying disease or its evolution. The painful experience experienced by cancer patients is most often the reflection of multiple etiologies that are added up and potentiated.[2] Studies[3] show that, in cancer, the initial phase of the disease is painless and is a clinical manifestation that affects 33% of patients in early treatment. However, in advanced stages, 90% of patients complain of pain, moderate to severe, enough to reduce their activities and quality of life.

In the context of assistance, the nursing staff care, before the oncological patient in pain, assumes the implementation of pharmacological and non-pharmacological therapies. The first is based on the incorporation of a sequence of painkillers known as "analgesic ladder" proposed by the World Health Organization (WHO),[4] and the second is a set of adjuvant interventions of low-cost, easy application, and minimum side effects.

Thus, the nursing staff is in a privileged position to assess the pain in a patient under their care, and, above all, influence its control.[5] However, previous studies[1] denote that there are gaps in the clinical practice in the ability of nursing professionals for the efficient management of pain. Especially when referring to the evaluation because it appears that the nurse is more attentive to behavioral changes in the patient (crying, restlessness, facial expression) than to physiological changes (change in heart rate and breathing, blood pressure, oxygen saturation, palmar sweating).[6]

Therefore, the importance of this study for the scientific community becomes notable as well as the improvement of the health care practice in nursing since they are pointed to therapeutic conducts for the treatment of pain, its uses in the clinical practice and nursing care, and the user's satisfaction with the options adopted.

Faced with the problems highlighted, the following objectives were outlined: to identify the main therapeutic pharmacological and non-pharmacological modalities used by the nursing staff in the management of pain in institutionalized cancer patients; to assess the coherence between the pharmacological treatment and the intensity of pain reported by the patient in the light of the analgesic ladder proposed by WHO; to measure the degree of satisfaction among the institutionalized cancer patients in relation to pharmacological and non-pharmacological therapies.

## METHOD

This was an exploratory-descriptive study with a quantitative approach developed in a reference hospital for cancer treatment, located in the municipality of Campina Grande - PB, northeastern Brazil.

The population eligible for the present study was composed of 50 institutionalized patients in the Oncology clinic suffering with pain. The inclusion criteria were: patients who presented pain complaints and/or a record of pain by the nursing staff, and those with prescriptions for analgesics. The exclusion criteria were: patients with decreased consciousness and communication deficit, and those under 18 years old.

The study guaranteed anonymity of participants as established in the No. 466/12 resolution from the National Health Council that discusses the guidelines and regulatory norms for research involving human beings, and the Resolution No. 311/2007 from COFEN, which reformulates the Code of Ethics of Nursing Professionals. The project followed the guidelines of the Ethics in Research Committee from the Alcides Castro University Hospital and received approval under the protocol number CAAE: 15660813.3.0000.5182.

A questionnaire with objective and subjective questions, divided into two parts, was used to operationalize the interviews. The first consisted of socio-demographic and clinical data from the participants and the second of questions related to the use of pharmacological and non-pharmacological treatment adopted by the nursing staff and customers' satisfactions with analgesia.

It is important to stress that patients' records were also observed seeking to identify the main medicines used for the relief/pain control in the medical prescriptions. Data collection was carried out between July and August of 2013, in the morning and afternoon shifts, according to the demand of pain complaints on the part of the institutionalized patients.

The Chi-square test was used for the analysis of associations between variables. The results were considered statistically significant for a p value > 0.05. Thus, it was possible to correlate the different data noting whether they showed significant associations or not; the data were entered in an *Excel for Windows* spreadsheet and transposed to the *Statistical Package for the Social Sciences* (SPSS) version 1.9.

## RESULTS E DISCUSSION

The sample set showed an even distribution of genders (50%) with 25 males and 25 females. The age distribution showed a predominance of 13 (26%) between the ages of 56-65 years. In relation to the level of education, a high prevalence of participants with

incomplete elementary school was observed, 26 (52%), followed by a considerable number of illiterate participants, 17 (34%).

In addition, this study assessed the distribution of participants with regard to cancer types and tumor clinical staging. Among women, a higher prevalence of cervical cancer was observed, with six (24%) cases, followed by four (16%) with breast cancer, and three (12%) with stomach cancer. Among men, a high prevalence of prostate cancer was observed, with six (24%) cases, followed by five (20%) with lymphoma, and three (12%) with lung cancer.

The tumors were classified for clinical staging as *in situ* and/or invasive. In this perspective, the metastasizing potential was described in 33 (66%) participants, while 17 (34%) presented *in situ* tumor.

Regarding the pharmacological therapeutic modalities used by the nursing staff for oncological pain, 23 (46%) participants used some analgesic and/or anti-inflammatory steroid, 22 (44%) showed indication of associated use of a weak opioid, alone or in combination with an analgesic or anti-inflammatory, and 5 (10%) needed strong opioids, alone or in combination with an analgesic and/or non-steroid anti-inflammatory.

As for the use of pharmacologic therapies, only 16 (32%) participants reported having used these interventions as an alternative for pain relief. Thermotherapy was used in six (37.5%), followed by massage therapy in five (31.3%), bath in two (12.5%), cryotherapy in two (12.5%), and sprinkling hot bath in one (6.3%).

Participants were also asked about the degree of satisfaction with respect to the use of pharmacological and non-pharmacological therapies implemented by the nursing staff before the oncological patient pain. With regards to the pharmacological therapies, two (4%) were very satisfied, 44 (88%) were satisfied, and four (8%) were unhappy with the analgesia. With regard to the non-pharmacological therapies, eight (50%) reported dissatisfaction, while seven others (43.75%) were satisfied, and one (6.25%) was indifferent.

The results show equal distribution of genders. This result is considered inconsistent with other studies conducted in developing countries, like Brazil, where the prevalence of cancer in the female gender in some studies was 25% greater.[7]

With respect to age distribution, the prevalence of participants aged between 56-65 years was also evidenced in studies developed by the *American Cancer Society* reporting an average of 77% of all cancer types being diagnosed in patients 55 years old and older.[8] Facts like this, can be explained by the longer life expectancy in the population, intense process of urbanization, increased elderly exposure to carcinogens, and improvement of diagnostic cancer methods favoring the shift of the morbidity and mortality burden from younger to older groups.[9]

As for the level of education, the prevalence of participants with incomplete elementary school is observed, followed by illiterates. It is known that the level of education and socioeconomic status configure as predictive factors for developing certain types of cancer, attributed to increased restriction to acquire information about the ways to disease prevention and early detection, and greater difficulty of access health services.[10]

When compared, the relationship between gender and type of cancer showed, in Brazil, an increased incidence of prostate cancer among men, being considered the 6$^{th}$ most common type of cancer in the world.[11] In this study, the prevalence of uterine cancer among

women was comparable to the data in developing countries where uterine cancer is pointed as the first or second type of cancer corresponding to 15% of all diagnosed tumors.[12]

According to the tumor clinical staging, it was possible to classify tumors in *in situ* and/or invasive. The term *in situ* tumor applies to neoplastic cells that are limited to a layer where they develop and, therefore, do not spread to other tissues and organs. The prevalence of invasive tumors was observed, whose neoplastic cells spread to other organs through the bloodstream and/or lymphatic system, into new foci called metastases.[9]

In the clinical practice, cancer patients usually benefit from pharmacological and non-pharmacological therapies for the control of pain. The administration of painkillers by the nursing staff was preponderant. Pharmacological treatments are considered the most widely used among patients complaining of pain, following the trend of the biomedical model, which in turn gives priority to physical care to the detriment of bio-psychosocial aspects.[13] Such predominant actions of pharmacological order in the clinical environment, with emphasis on the administration of analgesics for pain relief, can be attributed to the difficulties encountered by the nursing professionals to measure and implement other measures for pain relief.[14.15]

The pharmacological therapy is considered paramount to the congruence between the intensity of pain reported by the patient and effectiveness of the analgesic prescribed.[16] Starting from this assumption, it was possible to ascertain the consistency of medical prescriptions according to the intensity of pain previously evaluated in the oncological patient.

Thus, considerable prescription of painkillers for pain relief was detected among the participants who reported mild pain, for example, Dipyrone, Butylbromide of scopolamine, and Tenoxicam, although the use of weak and strong opioids for the relief of mild pain was evidenced in some of the medical prescriptions. Among patients with moderate pain, the use of weak opioids prevailed, such as Tramadol and Acetaminophen associated to codeine, with or without association with a painkiller. Finally, all patients who reported severe to excruciating pain received strong opioids, such as Morphine, isolated or combined with an analgesic.

From the results found and obeying the "analgesic ladder" proposed by the WHO[4], it was noticed that the therapeutic scheme for mild to moderate pain was considered partially compatible because it presents some restrictions. The therapeutic scheme for severe and excruciating pain also was considered partially compatible, although the use of strong opioids prevails.

The non-pharmacological therapies implemented by the nursing staff in the management of pain in oncology highlights the use of thermotherapy, based on the application of surface heat through thermal bags or compresses, whose goal is to promote muscular relaxation by interfering in the pain-spasm-pain cycle, enabling the removal of metabolic products, as well as chemical mediators responsible for the induction of pain.[17]

The massage therapy as an adjuvant technique in the control of pain in cancer patients has shown effectiveness and consists in the manipulation of soft tissue of the body, performed with the hands, producing mechanical tissue stimulation through rhythmic movements of stretching and pressure in order to induce muscle relaxation and pain relief.[18]

Cryotherapy promotes vasoconstriction by increased sympathetic activity after the stimulation of cold receptors in the skin reducing chemical mediators involved in nociception of pain, being more commonly used in the management of inflammatory pain.[17]

The aforementioned findings converge with one study[19] that highlights the use of non-pharmacological measures implemented by nurses to treat cancer patients; the most commonly used interventions in the clinical environment were physical methods, such as application of heat and/or cold, manual massage, and cognitive-behavioral methods, which include relaxation and directed distraction.

Considering the therapeutic conduct for the relief of pain in oncology through the use of drugs and/or complementary therapies, it is not always possible to succeed with relation to analgesia. Thus, another aspect of great importance for the proper management of pain consists of evaluating the degree of patient satisfaction with the therapy employed to determine the efficiency of the proposed treatment.

However, this practice has been underestimated by nursing professionals in view of the lack of annotations and/or records about the patient's satisfaction with the conducts carried out.[20] Therefore, it becomes imperative to the nursing professional to remain vigilant to the effectiveness of the implemented therapeutic, even in the face of care based on a doctor's centered format and drugs.

An expressive number of participants obtained satisfactory relief with the pharmacological therapies. The results corroborate those reported in other[17] studies that highlight the analgesic pharmacotherapy as the primary therapeutic modality for the effective control of pain in oncology.

Conversely, most of the participants who benefited from pharmacological therapies felt dissatisfied with the conduct employed.

## CONCLUSION

Given the above, it is concluded that the control of pain in oncology has been a challenge in the clinical practice of nursing professionals taking into consideration the magnitude of the problem and the subjectivity of the painful phenomenon.

The results showed predominance of pharmacological therapies restricting the nursing care to the administration of medicines. As for non-pharmacological treatments, it was found that they are not exploited to their fullness. This fact can be justified by insufficient material and human resources.

With regard to the degree of patient satisfaction with the therapies used, greater dissatisfaction with non-pharmacological therapies was observed. The degree of satisfaction with regards to pharmacological therapies was evidenced in a significant number of patients.

Thus, the implementation of strategies to promote the proper management of pain in oncological patients is necessary to contribute to an individualized and resolutive assistance.

Finally, it is hoped that this study has contributed to reaffirm and disseminate the vital need to improve the clinical practice of health professionals, in particular of nursing professionals, as well as to manage changes for the confrontation of the problem.

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Received on: 15/02/2014
Required for review: No
Approved on: 03/09/2014
Published on: 01/01/2015

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