

Nursing interventions in palliative care in Pediatric Oncology: an integrative review

Intervenções de enfermagem nos cuidados paliativos em Oncologia Pediátrica: revisão integrativa

Intervenciones de enfermería en los cuidados paliativos en Oncología Pediátrica: una revisión integrativa

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ABSTRACT

Objective: to identify, in scientific productions, nursing interventions in palliative care in children and adolescents with cancer. **Method:** integrative review of the literature through the databases: CINAHL, MEDLINE, IBECs, LILACS and SCIELO, carried out in October and November 2017. **Results:** we analyzed 18 articles that met the inclusion criteria. The results showed that, among the articles selected, Brazil is the country with the largest number of publications and that interventions such as music therapy, massage, ludic application, early consultation of palliative care, social interventions and physical exercises aimed at the resolution of a specific symptom obtained better results when compared to interventions that aimed at the comprehensiveness of palliative care. **Final Consideration:** we conclude that greater emphasis should be given to palliative care in academic and professional training and that further studies in search of the best evidence should be conducted to support nursing Evidence-Based Practices. **Descriptors:** Palliative Care; Nursing Diagnosis; Child; Adolescent; Neoplasms.

RESUMO

Objetivo: identificar, nas produções científicas, as intervenções de enfermagem nos cuidados paliativos em crianças e adolescentes com câncer. **Método:** revisão integrativa da literatura através das bases de dados: CINAHL, MEDLINE, IBECs, LILACS e SCIELO, realizado em outubro e novembro de 2017. **Resultados:** foram analisados 18 artigos que atenderam aos critérios de inclusão. Os resultados mostraram que, dentre os artigos selecionados, o Brasil é o país com maior número de publicações e que as intervenções como: musicoterapia, massagem, aplicação do lúdico, consulta precoce de cuidados paliativos, intervenções sociais e exercícios físicos que objetivaram a resolução de uma sintoma específico obtiveram melhores resultados se comparadas as intervenções que objetivavam a integralidade dos cuidados paliativos. **Considerações Finais:** concluímos que maior ênfase deve ser dada aos cuidados paliativos na formação acadêmica e profissional e que novos estudos em busca das melhores evidências devem ser realizados para embasar as práticas de enfermagem baseadas em evidências. **Descritores:** Cuidados Paliativos; Diagnóstico de Enfermagem; Criança; Adolescente; Neoplasias.

RESUMEN

Objetivo: identificar, en las producciones científicas, las intervenciones de enfermería en los cuidados paliativos en niños y adolescentes con cáncer. **Método:** revisión integradora de la literatura en las bases de datos: CINAHL, MEDLINE, IBECs, LILACS y SCIELO, realizado en octubre y noviembre 2017. **Resultados:** se analizaron 18 artículos que cumplieron los criterios de inclusión. Los resultados mostraron que, entre los artículos seleccionados, Brasil es el país con más publicaciones e intervenciones como: musicoterapia, masaje, aplicación del lúdico, consulta precoz de cuidados paliativos, intervenciones sociales y ejercicios físicos que objetivaron la resolución de un síntoma específico obtuvieron mejores resultados si se compararon las intervenciones que objetivaban la integralidad de los cuidados paliativos. **Consideraciones Finales:** concluimos que el mayor énfasis debe ser dado a los cuidados paliativos en la formación académica y profesional y que nuevos estudios en la búsqueda de las mejores evidencias deben ser realizados para basar las prácticas de enfermería basadas en evidencias. **Descritores:** Cuidados Paliativos; Diagnóstico de Enfermería; Niño; Adolescente; Neoplasias.

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INTRODUCTION

Cancer is characterized by the disordered growth of cells, which occurs in more than one hundred different types of cells or tissues, are characterized by rapid growth, and are capable of invading neighboring tissues and being transported through the bloodstream to other distant tissues, producing metastases⁽¹⁾.

Pediatric cancer in Brazil accounts for 2 to 3% of all registered types of cancer, and is rare. It is the chronic disease with the highest mortality rate in the age group from 0 to 19 years, estimated for the year 2016, 12,600 new cases of cancer in the child population⁽²⁾.

Childhood cancer treatment is long and traumatic for all involved: children, family members and health professionals. Despite the use of all technological healing resources, in all cases when there is a possibility of healing, psychological, social, spiritual and physical suffering is certain during the treatment. However, all children diagnosed with cancer may benefit from palliative care in the course of the disease⁽³⁾.

The World Health Organization defines palliative care for children "as a specialty in itself, consisting of the total active care of the body, mind and spirit of the child and the support of the family". They begin in the diagnosis of the disease with other treatments that can prolong life, such as chemotherapy or radiotherapy, always aiming at maintaining the quality of life⁽⁴⁾.

Worldwide, of all those in need of palliative care, only 14% have access. Health care providers should assess and alleviate the physical, psychological and social distress of the child. In order for palliative care to be effective, a broad multidisciplinary approach should be applied that includes the family and makes use of the resources available in the community⁽⁴⁾.

In 1967, the Englishwoman Dame Cicely Saunders, who began her career as a nurse and later graduated as a social and medical assistant, known for her role in the birth of the modern hospice movement or palliative care, founded the St. Christopher Hospice, emphasizing the importance of palliative care in modern Medicine. This institution became known worldwide in the area of teaching and research in the field of Palliative Care⁽⁵⁾. In this context, Dr. Saunders became a pioneer in identifying that palliative care should be fully developed, from symptom control, pain relief, and psychological distress. Nursing has, therefore, the fundamental responsibility to recognize its role in the maintenance of palliative care in children and adolescents with cancer. The strategies of palliative care should be individual, centered on the child and adolescent, establishing communication with the family, aiming at the comprehensive care⁽¹⁻⁶⁾.

Nursing interventions in palliative care should begin at the time of diagnosis along with curative care and perpetuate throughout the treatment, managing pain management and all the overall symptoms presented. The child and adolescent diagnosed with cancer will probably only achieve an excellent quality of life with early recognition and the implementation of palliative care⁽⁶⁾.

Review article published in 2012 shows the importance of planning nursing actions in the development of palliative care, in which care is the most important in order to effectively control the impact of cancer on the lives of patients and their families⁽⁷⁾.

Based on the above, the following research question was developed: what are the nursing interventions in palliative care in Pediatric Oncology?

Understanding the importance of early planning and implementation of palliative care, to children and adolescents with cancer to achieve an effective symptom control and understanding the need to search for evidence-based interventions, the research had as objective:

OBJECTIVE

To identify, in scientific productions, nursing interventions in palliative care in children and adolescents with cancer.

METHOD

This research is an Integrative Review (IR) of the literature, which is one of the methods used in the Evidence-Based Practice (EBP), with the purpose of gathering and synthesizing research results on a certain theme or issue, in a manner systematic and orderly, contributing to the deepening of the studied subject, besides pointing out knowledge gaps that need to be fulfilled with the realization of new studies⁽⁸⁾.

IR is a broad methodological approach, as it allows the inclusion of experimental and non-experimental studies to understand the phenomenon analyzed⁽⁹⁾. It consists of six stages: definition of the research question, establishment of inclusion and exclusion criteria with the search in the literature, definition of the information to be extracted from the studies, evaluation of included studies, interpretation of the results and synthesis of the data, which were followed in this research, as described below⁽⁸⁾.

In relation to EBP, there are four fundamental elements to build a good research question, since a well-constructed question allows the correct definition of the information needed to solve the clinical question researched. These four elements are characterized by the PICO strategy: Patient/problem, Intervention, Comparison (optional) and Outcome⁽¹⁰⁾. In this perspective, the research question was elaborated.

The searches in the databases respected the guidelines of the PICO strategy, where specific descriptors were selected that represented the (P), (I) and (O), the (C) does not apply because this research does not aim to make a comparison between the interventions. The use of the PICO strategy is efficient in the effective recovery of evidence, some bases already have an interface for direct insertion of the 4 components of the PICO strategy, such as MEDLINE/PubMed, which can be accessed at <http://askmedline.nlm.nih.gov/ask/pico.php>⁽¹⁰⁾.

Articles selection was carried out in October and November 2017, a consultation to the Descriptors in Health Sciences (DeCS) own the databases LILACS, SciELO and IBESC, to the Medical Subject Headings (MeSH), the PubMed database and in the CINAHL Titles own the CINAHL database, was performed to determine the search terms. The search terms used, combined with the Boolean operators, are exemplified in the final search strategy in Chart 1.

The following inclusion criteria were defined: articles available in the English, Portuguese and Spanish languages, which addressed the topic of nursing interventions in palliative care, population with samples of patients under 18 years of age, using a time cut from 2012 to 2017 available in the databases: CINAHL, LILACS, IBESCS, PubMed and Scielo (cHART 1).

Chart 1 - Search strategy in databases

PICO	DESC	MESH	CINAHL Titles
P	Criança OR adolescente OR neoplasias	Child OR adolescent OR neoplasms	Child OR adolescent
	AND	AND	AND
I	Cuidados paliativos OR diagnóstico de enfermagem	Palliative care OR nursing diagnoses OR oncology nursing OR Pediatric nursing OR nursing assessment OR Hospice and Palliative Care Nursing	Palliative care OR oncology nursing OR nursing diagnoses
	AND	AND	AND
C			
O	Qualidade de vida	Quality of life	Quality of life

Review articles were excluded from the review, except for systematic ones due to their high degree of evidence, theses, dissertations and articles related to the creation and/or validation of instruments.

The document Preferred Reporting Items for Systematic Reviews and Meta-Analysis (PRISMA) was developed to increase the quality of systematic reviews and meta-analysis of randomized clinical trials and non-randomized studies. The PRISMA consists of 27 essential topics for the clear, detailed description, visualized in flow chart with all phases of the study, accompanied by an explanatory, detailed document⁽¹¹⁾.

Table 1 - Number of articles obtained in databases in the years 2012 to November 2017

Databases	Articles Found	Articles Excluded	Articles Selected	Articles Repeated	Total of Articles Analyzed
LILACS	17	11	6	0	6
IBECs	1	1	0	0	0
SCIELO	4	1	3	3	0
CINAHL	29	26	3	1	3
PUBMED	68	59	9	3	9
TOTAL	119	98	21	7	18

Note: Description of article searches in databases.

Chart 2 – Description of included studies of integrative review, second title, authors, year of publication, Level of Evidence, design, number of participants and setting, interventions used in palliative care and outcome, Rio de Janeiro, Brazil, 2017

Nº	Title	Authors and Year of publishing	Level of Evidence	Outlining and number of patients/setting	Intervention Studied	Outcome
1 ⁽¹⁴⁾	“You’ve only got one chance to get it right”: Children’s cancer nurses’ experiences of providing palliative care in the acute hospital setting	Helen Nina Pearson 2013	Level 6	Qualitative study (N=7) Hospital	Management of symptoms and family.	The poor training of nurses in palliative care leaves them without theoretical subsidies to perform palliative care in practice.

To be continued

Although it was an IR, the PRISMA list check was followed, with the objective of increasing the reliability of the research, excluding only the exclusive items the systematic reviews. Figure 1 shows the research flowchart according to PRISMA.

In the development of the analysis, the authors used a form with the following items: title, authors and year of publication, Level of Evidence, design and number of patients, intervention studied and outcome (Chart 2).

The categorization of Level of Evidence was based on the categorization of the Agency for Healthcare Research and Quality (AHRQ) into seven levels of classification: level 1, systematic review or meta-analysis of controlled clinical trials; level 2, well-outlined randomized controlled clinical trial; level 3, controlled clinical trial without randomization; level 4, well-outlined cohort or case-control studies; level 5, systematic review of qualitative and descriptive studies; level 6, descriptive or qualitative studies and level 7, opinion of authorities or experts⁽¹²⁾.

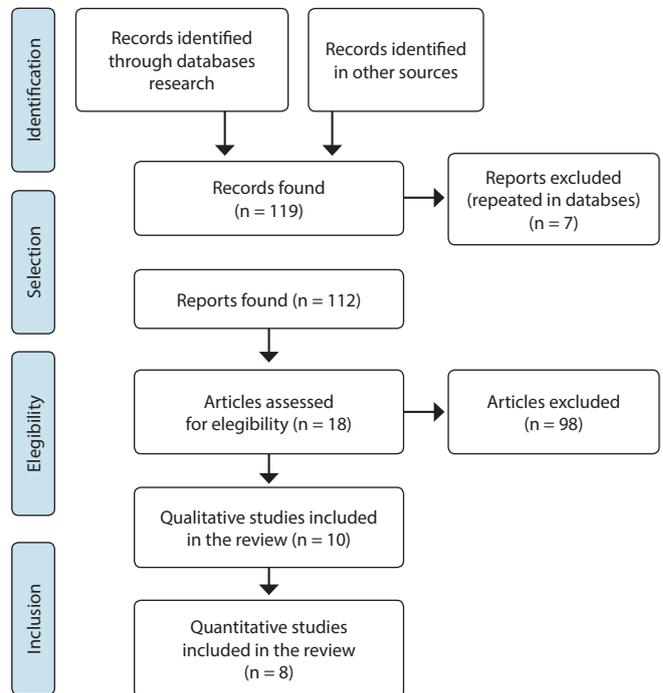


Figure 1 - Flowchart of the process of Identification, selection and inclusion of the studies elaborated from the PRISMA recommendation

Chart 2

Nº	Title	Authors and Year of publishing	Level of Evidence	Outlining and number of patients/setting	Intervention Studied	Outcome
2 ⁽¹⁵⁾	<i>A atuação do enfermeiro junto à criança com câncer: cuidados paliativos</i>	Ana Claudia Moreira Monteiro, Benedita Maria Rêgo Deusdará Rodrigues, Sandra Teixeira de Araújo Pacheco and Luana Sena Pimenta 2014	Level 6	Descriptive study qualitative (N=14) Hospital	To provide comfort, meet the child's needs (physical, psychological and social), quality of life (play), give spiritual, emotional and religious support, care for the family.	Palliative Care of nurses is based on the promotion of comfort and well-being, through sensitive listening, emotional support for the child and the family.
3 ⁽¹⁶⁾	<i>A massagem na criança com câncer: eficácia de um protocolo</i>	Luís Manuel da Cunha Batalha, and Aida A.S.C. Mota 2013	Level 2	Controlled randomized study (N=52) Hospital	Pain-relief massage.	Pain relief after each massage session and decrease of pain interference when walking after 7 days of intercalated massage.
4 ⁽¹⁷⁾	<i>Cuidados de enfermagem à criança que tem doença oncológica avançada: Ser-com no cotidiano assistencial</i>	Cintia Flores Mutti, Stela Maris de Mello Padoin, Cristiane Cardoso de Paula, Ivis Emília de Oliveira Souza, Marlene Gomes Terra, Alberto Manuel Quintana 2012	Level 6	Qualitative study (N=15) Hospital	Comprehensive care for the child and the family.	Pediatric Oncology care transcends ethical issues and routines, being fundamental the nursing team the development of competencies to meet the singularities of the child and his family.
5 ⁽¹⁸⁾	Effects of massage therapy on pain and anxiety arising from intrathecal therapy or bone marrow aspiration in children with cancer	Ayda Çelebiog̃lu, Ays, and Gürol, Zuhul Keskin Yildirim, Mustafa Büyükcavci 2014	Level 4	Control-case study (N=25) Hospital	Massage to control acute procedural pain and anxiety in children with cancer, submitted to intrathecal therapy or bone marrow aspiration.	The study provided preliminary evidence of the effectiveness of massage in relieving pain in children with cancer undergoing intrathecal therapy or bone marrow aspiration.
6 ⁽¹⁹⁾	Effects of nursing intervention models on social adaptation capability development in preschool children with malignant tumors: a randomized control trial	Lu Yu1, Lin Mo, Yan Tang, Xiaoyan Huang1 and Juan Tan1 2014	Level 2	Controlled randomized study (N=120) Hospital	Group interventions, family-centered model of nursing care (to improve social adaptation in children with cancer).	Family-centered care, with physical, psychological and social interventions, based on children and parents increased the children's social adaptation capacity.
<p style="text-align: center;">7⁽²⁰⁾ Efficacy of therapeutic play for pediatric brain tumor patients during external beam radiotherapy Yu-Li Tsai, Shio-Chwen Tsai, Sang-Hue Yen, Kai-Lin Huang, Pei-Fan Um, Hueh-Chun Liou, Tai-Tong Wong, I-Chun Lai, Pin Liu, Hsiao-Ling Lou, I-Tsun Chiang, Yi-Wei Chen 2013 Level 3 Controlled clinical study without randomization (N=9) Hospital Therapeutic game to reduce anxiety in children and adolescents with brain tumors before radiotherapy.</p>						The use of the therapeutic game has brought many benefits such as: reduction of anxiety, increased cooperation of the child with the team, reduction of the use of sedation during radiotherapy, reduction of children's fear of radiotherapy.
8 ⁽²¹⁾	Establishing Feasibility of Early Palliative Care Consultation in Pediatric Hematopoietic Stem Cell Transplantation	Deborah A. Lafond, Katherine Patterson Kelly, Pamela S. Hinds, Ann Sill, and Michele Michael 2015	Level 4	Longitudinal cohort study (N=12) Hospital	Early consultation of palliative care.	The study demonstrated the feasibility of early integration of palliative care consultations to children with cancer, thus favoring the family acceptance of interventions in palliative care.
9 ⁽²²⁾	Experiences of Pediatric Oncology Patients and Their Parents at End of Life: A Systematic Review	Kathleen Montgomery, Kathleen J. Sawin and Verna L. Hendricks-Ferguson 2015	Level 1	Systematic review (N=43 articles analyzed)	Management of symptoms in palliative care.	Nurses have the opportunity to assess and address the needs of children and their parents throughout the palliative care process, whether in the physiological, emotional or psychosocial aspects.

To be continued

Chart 2

Nº	Title	Authors and Year of publishing	Level of Evidence	Outlining and number of patients/setting	Intervention Studied	Outcome
10 ⁽²³⁾	Exploring Communication Difficulties in Pediatric Hematology: Oncology Nurses	Ebru Akgun Citak, Ebru Kilicarslan Toruner and Nebahat Bora Gunes 2013	Level 6	Qualitative descriptive study (N=8) Hospital	Communication with children and families.	The results showed that there are difficulties in communication between nurses and children with cancer and their relatives and that these difficulties increase in times of crisis such as in relapses.
11 ⁽²⁴⁾	Health-related quality of life and its association with self-esteem and fatigue among children diagnosed with cancer	Ekhlas Al-Gamal and Tony Long 2016	Level 6	Comparative descriptive study (N=70) Hospital ambulatory	Pharmacological and non-pharmacological strategies in the control of fatigue.	To minimize the damages caused by fatigue, strategies should be created to encourage the practice of physical exercises, socialization with children of the same age and permanence in school.
12 ⁽²⁵⁾	<i>Importância da comunicação nos cuidados paliativos em oncologia pediátrica: enfoque na Teoria Humanística de Enfermagem</i>	Jael Rúbia Figueiredo de Sá França, Solange Fátima Geraldo da Costa, Maria Emília Limeira Lopes, Maria Miriam Lima da Nóbrega and Inacia Sátiro Xavier de França. 2013	Level 6	Qualitative study (N=10) Hospital	Communication as a humanization strategy in palliative care.	Communication is the axis for care in Nursing. It is configured as an effective element in palliative care with the child and promotes holistic care.
13 ⁽²⁶⁾	<i>O enfermeiro e o cuidar da criança com câncer sem possibilidade de cura atual</i>	Ana Claudia Moreira Monteiro, Benedita Maria Rêgo Deusdará Rodrigues and Sandra Teixeira de Araújo Pacheco 2012	Level 6	Qualitative study (N=12) Hospital	Care centered on comfort and pain control.	Comfort is the way of caring for the nurse in palliative care, focused on protection, solicitude and listening, acting on the relief of symptoms and suffering, directing care to the family as well.
14 ⁽²⁷⁾	<i>O uso do brincar pela equipe de enfermagem no cuidado paliativo de crianças com câncer</i>	Vanessa Albuquerque Soares, Liliane Faria da Silva, Emília Gallindo Cursino and Fernanda Garcia Bezerra Goes 2014	Level 6	Qualitative descriptive study (N=11) Hospital	Use of the toy in palliative care.	Playing in palliative care facilitates communication, interaction and relieves the child's tense in traumatic and painful procedures.
15 ⁽²⁸⁾	Parental Perspectives on a Behavioral Health Music Intervention for Adolescent/Young Adult Resilience During Cancer Treatment: Report From the Children's Oncology Group	Sharron L. Docherty, Sheri L. Robb, Celeste Phillips-Salimi, Brooke Cherven, Kristin Stegenga, Verna Hendricks-Ferguson, Lona Roll, Molly Donovan Stickler and Joan Haase 2013	Level 6	Qualitative descriptive study (N=16) Hospital	Music therapy in palliative care.	The parents evaluated that the music therapy in their children was useful and significant, increasing the resilience in relation to the coexistence with the disease.
16 ⁽²⁹⁾	<i>Relações estabelecidas pelos profissionais de enfermagem no cuidado às crianças com doença oncológica avançada</i>	Thamiza L. da Rosa dos Reis, Cristiane Cardoso de Paula, Tassiana Potrich, Stela Maris de Mello Padoin, Aline Bin, Cintia Flores Mutti and Renata de Moura Bubaduê 2014	Level 6	Qualitative descriptive study (N=15) Hospital	Nursing team relationships in the care of children with advanced cancer disease.	The research points out the need for Permanent Education to professionals, as well as support for everyday care situations, in order to minimize negative feelings and enable humanized care, promoting quality of life.
17 ⁽³⁰⁾	Relationships Among Therapy-Related Symptoms, Depressive Symptoms, and Quality of Life in Chinese Children Hospitalized With Cancer	Ho Cheung William, Phoebe D. Williams, FAAN Violeta Lopez, Joyce Oi Kwan Chung and Sau Ying Chiu 2013	Level 3	Cross-sectional study (N=135) Hospital	Intervention to promote psychosocial well-being.	To minimize the damages caused by fatigue, strategies should be created to encourage the practice of physical exercises, socialization with children of the same age and permanence in school.

To be continued

Chart 2 (concluded)

Nº	Title	Authors and Year of publishing	Level of Evidence	Outlining and number of patients/setting	Intervention Studied	Outcome
18 ⁽³¹⁾	Systematic Review and Meta-Analysis of Nonpharmacological Interventions for Fatigue in Children and Adolescents With Cancer	Chi-Wen Chang, Pei-Fan Mu, Shiann-Tarnng Jou, Tai-Tong Wong and Yu-Chih Chen 2013	Level 1	Systematic review with meta-analysis (N=6 articles analyzed)	Non-pharmacological interventions in the control of fatigue in children and adolescents with cancer.	Of the six studies, one was for massage and one for health education, and it was not possible to perform meta-analysis. The practice of physical exercises was efficient in improving fatigue in four analyzed articles.

In accordance with the ethical and legal aspects of Resolution 466 (2012)⁽¹³⁾, the research was not submitted to the Research Ethics Committee because it is a literature review and does not involve human beings.

RESULTS

The final sample comprised 18 publications (Chart 2), from international journals (67%) and Brazilian journals (33%). The countries of origin of the publications that composed the sample were Brazil (33.3%), China (22.2%), United States of America (22.2%), Turkey (11.1%), Portugal (5%), and Jordan (5.5%). In relation to the year of publication, there was a highlight for the year 2013 with 44% of the publications and the year 2017, excluding the month of December with 0% of publications.

As regards the methodological design of the studies, ten (55.5%) were descriptive, comparative qualitative studies, two (11%) randomized controlled trials, one (5.5%) control case study, two (11%) randomization, one (5.5%) cohort study and two (11%) systematic reviews. It was observed that most publications (55.5%) had NE VI, followed by IV, III, II and I both with (11.1%) each.

DISCUSSION

The basic principles for comprehensive palliative care include recognizing death as a natural life process and incorporating the integration of physical, spiritual, emotional, and social care into the promotion of patient comfort⁽⁶⁾.

Article (1) presents the experience of pediatric nurses with less than two years of training in the management of palliative care for hospitalized children, all female between the ages of twenty two and twenty five years. The result showed unprepared nurses in the development of palliative care in the first years of care due to the lack of educational and practical training by the universities in palliative care. The nurses showed concern about the lack of a care plan, management of symptoms, family, experience and emotional work. The authors concluded that clinical skills were important for the development of comprehensive palliative care, but the educational needs were more impacting in the development of the practice, since nurses had the first contact with the theme in the work environment.

A similar result appears in a study carried out in Brazil, which shows the perspectives of the academics in relation to the perception and the academic training in palliative care. As for perceptions, academics are concerned with the control of signs and symptoms, especially pain during palliative therapy, in addition

to psychological, social and spiritual issues, but many have found palliative care to begin only when the patient is already present out of therapeutic possibility⁽¹⁾. Regarding the training, all the graduates interviewed said that more emphasis should be given to the subject during the nursing graduation⁽¹⁾.

Articles (2, 4 and 16) show nursing strategies in promoting comfort to the child in the face of illness, bringing relief of pain and comfort through word, physical contact, psychological support so that one can die with dignity. The (16) also shows that nurses create internal mechanisms to separate professional relationships from personal relationships, avoiding suffering. Articles (4, 13 and 16) show that comprehensive care in palliative care to improve quality of life should be systematically developed to promote comfort, revealing the relational nature of the human being, making possible a look at the nursing practice of care that is developed, between caregivers and caregivers, bringing the child and the family to everyday care.

A study carried out in 2015 found that although the systematization of care is considered important by nurses when it comes to qualified and individualized care, there are more challenges than facilities to manage their implementation, such as failure to implement correctly, lack of printouts, protocols, shortage of human resources, lack of knowledge or lack of training of nurses, and incomplete records⁽³²⁾.

Articles (4 and 16) report that mother nurses stand in the place of families, showing more empathy, and that psychological and technical learning in the performance of palliative care is related to professional experience. Article (9) deals with symptom management and communication as a pillar between relationships, in the inclusion of children and their families in the participation of care and in decision-making.

The focus of nursing care on the principles of humanization, linking technical care with emotional care, enables the formation of the nurse-patient-family bond, allowing professionals to deal with limitations and conflicts in a healthy way, respecting their values and conceptions, using communication as a relevant link of humanization of care⁽³³⁾.

The goal of palliative care is to achieve quality of life for children and their families, so professionals working with this clientele must provide comfort to the child, under the conditions in which the child is. Requiring the nursing team's skills and competencies with management issues to take care of the following actions: physical contact by touch, enable the mother and the family to hold the child in the lap, leave the child in a comfortable position, warm up and leave the favorable ambient temperature; use appropriate language and tone of voice, and avoid unnecessary handling⁽³⁴⁾.

Complementary therapeutic interventions are techniques that do not substitute for conventional treatments, and are used concomitantly, and may be physical, mechanical and cognitive methods⁽³⁵⁾.

Articles (3 and 5) bring massage as a nursing strategy to control pain and anxiety in children hospitalized for cancer treatment. Article (3) depicts a sequence of massages on alternate days before painful procedures. The results showed reduction of pain immediately after the massage, in the long term there was an improvement of pain when walking. Article (5) provided a quasi-experimental study in which massages were performed in children who were submitted to intrathecal therapy or bone marrow aspiration. The results showed improvement of children's pain and anxiety in performing the procedures.

Massage is a therapeutic technique that involves the applications of throbbing sequences and tissue manipulation techniques, promoting increased lymphatic circulation, increased blood flow, pain relief, facilitation of muscle activity, relaxation, relief of anxiety and tension, welfare⁽³⁶⁾.

Article (7) reports playful interventions by nurses to reduce anxiety and the use of sedation in children undergoing radiotherapy. Interventions were story-telling, electronic games and educational videos. The result showed a significant reduction of anxiety and a large part of the children stopped using sedation in the radiotherapy treatment. Article (14) shows us how Nursing uses therapeutic toys of the instructional type in palliative care to children hospitalized for cancer treatment, showing that nurses use the toy to guide and prepare children for painful or traumatic procedures is a way of the nurse to enter the world of the child to better understand their world, facilitating communication, interaction and relief of the child through invasive procedures, providing a humanized care.

The nurse has, in his professional training, resources that make it possible to alleviate the emotional state of the hospitalized child, one of them being the therapeutic toy technique⁽³⁷⁾.

A previous study has already brought positive results regarding the insertion of playfulness in the hospital environment of children with cancer, concluding that the most pleasant hospital environment allowed the development of the child through the maintenance of the pleasure of reading and playing⁽³⁸⁾.

Article (17) corroborates the social impact, psychosocial well-being and quality of life of children and adolescents in the first six months after diagnosis. It highlights the importance of careful monitoring of pediatric oncology patients and the implementation of appropriate interventions to alleviate the severity of symptoms, promote psychosocial health and improve quality of life. Article (6) shows a controlled clinical study in which the children in the control group received standard treatment and the children selected for the study underwent a strategy of family-centered care. Results showed that in the family-centered model of nursing interventions, children had more effective results in improving psychosocial well-being and quality of life than standard treatment.

The problems that occur during the children's hospitalization derive from sociological, psychological and pedagogical aspects. As interventions in the hospital context of the child should favor the rehabilitation and behavioral development of the child, not

restricted to the individual, but to the entire context of the hospitalization from the environmental structure to the assistance in areas that correspond to their needs, promoting well-being and skills to deal with biological and emotional factors⁽³⁹⁾.

Article (8) contains a cohort study in which children were selected for early systematized consultation of palliative care, providing other palliative care according to the request of the children and their families. The average number of interventions per participant was thirteen; the most frequent additional palliative care intervention was supportive care counseling. The study showed feasibility in the development of consultations and other early interventions in palliative care, reaching a high level of satisfaction of users and families.

Nursing consultation, as a light-hard technology, works by providing the child and family with self-care, as it gives them the opportunity to expose their needs, assisting the individual therapeutic construction⁽⁴⁰⁾.

Articles (10 and 12) provide a careful analysis of communication as a strategy used by nurses to humanize care in Nursing. Article (10) presents the experience of eight nurses from an onco-hematological center through three questions about communication with children and relatives, of which seven reported difficulty in answering questions mainly when related to the disease, because it was difficult to give poor answers to the prognosis, all reported that they fail to establish communication with terminally ill children, since it is difficult to deal with the death of children, all of them also reported having participated in conflicts with children or relatives due to poor communication. This lack of communication was interpreted by the authors as self-protection of nurses for fear of involvement and suffering, concluding the need for more professional training. Article (12) ratifies that nurses themselves consider communication as one of the most relevant instruments in the development of palliative care. Authentic communication between the nurse and the child should occur, as well as between all those involved in the palliative care process.

A multicenter study carried out in four health institutions and a higher education institution found a similar result and concluded that the participants value immensely in interpersonal communication in the context of palliative care, however, the majority had little knowledge about communication strategies, 57.7% of the subjects did not know to mention at least one adequate communication strategy, and only 15.2% of the subjects mentioned five non-verbal signs or strategies that had been requested⁽⁴¹⁾.

Article (15) portrays a study carried out with children submitted to bone marrow transplantation, where a music therapy intervention was performed in order to provide relief of symptoms and improvement of quality of life during recovery. The evaluation was made through the parents' report, which were satisfied and observed many benefits from music therapy.

The use of music in palliative care is very important because of its multidimensional contribution provides a place for the exchange of affection, emotions and delicacies that sometimes disappears when fear of death⁽⁴²⁾.

Articles (11 and 18) discuss one of the most prevalent symptoms in children with cancer, fatigue. Article (11) reports a study conducted in Jordan with seventy children and adolescents diagnosed with

cancer, where a scale was used to measure fatigue and a scale to measure quality of life, aiming to know how much fatigue negatively affected children's lives adolescents and, with this, to plan nursing actions. The authors concluded that the physical limitation of fatigue was the factor that most negatively influenced the quality of life of children and adolescents, as it interfered with friendships and stay in school. Article (18) is a meta-analysis of controlled clinical trials and quasi-experimental studies that examined the efficacy of non-pharmacology in interventions to reduce fatigue in children and adolescents with cancer. The types of intervention included: physical exercise, psychosocial interventions, stress management, relaxation, nutritional consultation, massage and educational interventions. The results of this meta-analysis revealed that physical exercise interventions are more effective in reducing fatigue levels in children and adolescents with cancer.

The regular practice of physical activity, in general, can provide several health benefits and prevent the occurrence of other comorbidities, can increase self-esteem, social acceptance and the sense of well-being in the children⁽⁴³⁾. The combination of strength and aerobic exercise for children undergoing cancer treatment and post-treatment can reduce fatigue levels⁽⁴⁴⁾.

Study limitations

As a limitation of the study, we agree that although carefully examined by three reviewers, it is biased as in any research. The bias includes any distortion during the research process, which can occur in any type of design, in the review analyzes can be: selection bias, information bias and confounding bias⁽⁴⁵⁾.

Another possible limitation may be related to the fact that the authors chose the PICO search strategy in the databases; although already reported its efficiency in other studies, is a developing strategy and some studies may not have been captured.

Contributions for the practice of Nursing

The research revealed that Nursing has been concerned with its role as a team member in the development of palliative care, promoting research to test the effectiveness of their interventions to improve the quality of life in Pediatric Oncology.

It was observed a major flaw in the world academic professional training, where the subject seems to be approached in an incipient way, making the professionals little prepared in the identification and adequate planning of the control of symptoms in palliative care in practice.

Nursing interventions in palliative care were more impacting in the research, when directed to a specific symptom, emphasizing the interventions of massage, music therapy, physical exercise and the application of play as the therapeutic instructional toy.

Effective communication among nurses, children and the family is one of the most important factors for a good interpretation of individual demands, being essential in the planning of interventions, whether comprehensive or directed, pharmacological or non-pharmacological, and poor in the results of the research.

FINAL CONSIDERATIONS

The results of this IR brought significant data regarding the Brazilian scientific contribution on the nursing interventions in palliative care to children and adolescents with cancer, being the country with the largest number of publications.

The data analyzed comprised several interventions, some aiming at comprehensive, holistic care, such as symptom management, promoting a physical, social, psychological and spiritual approach. However, these studies have mostly had negative results in relation to nurses' technical capacity and emotional preparation in promoting palliative care, mainly based on the lack of approach of the subject in the training institutions.

Interventions such as massage, music, physical exercise, instructional therapeutic toy and early nursing consultation directed to a specific symptom, such as pain control, anxiety and fatigue brought excellent results, showing that although we should always be focused on the comprehensive care the resolution of one problem situation at a time may be the best way to achieve the comprehensiveness of palliative care.

The results raised the need for more investment in academic and professional education through specializations and Permanent Education, so that nurses have more skill and emotional support to host the child, adolescent, and the family in the palliative care model.

New research is needed in order to define the best evidences in all areas in the development of palliative care, attending to the physical, psychological, social and spiritual needs so that Nursing can systematize palliative care with Evidence-Based Practice and, with optimize the care provided and bring more visibility to the profession.

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