

THE APPROACH TO CHILDHOOD CANCER IN PRIMARY HEALTH CARE: AN INTEGRATIVE LITERATURE REVIEW

A abordagem do câncer infantil na Atenção Primária à Saúde: uma revisão integrativa da literatura

Jane Kelly Oliveira Friestino¹, Djalma Carvalho Moreira Filho²

ABSTRACT

This review examines information available in the literature related to childhood cancer in Primary Health Care. After synthesizing the knowledge, necessary measures have been identified to choose the best approach to the subject in Primary Health Care. An integrative review was conducted, using the databases: Medline, Lilacs, Web of Science and Scopus, published between January 2003 and December 2013. We systematically evaluated papers discussing childhood cancer in Primary Health Care. From a total of 362 identified papers, 12 were included for analysis. We identified 3 main themes: *investigation of initial signs and symptoms of childhood cancer; diagnosis delays in childhood cancer; Access to health services*. We have noticed that the concept of early diagnosis or suspicion of cancer as something inherent in Primary Health Care is still little explored all over the world. Because of this, the management strategies and health management must contemplate the theme of childhood cancer. By creating structuring of a macro planning it is possible to predict the three axes already mentioned in the literature, following these advances, we could improve the children's health overall.

KEYWORDS: Early Detection of Cancer; Children's Health; Primary Health Care; Public Health.

RESUMO

Este estudo examina informações encontradas na literatura a respeito do câncer em crianças e adolescentes na Atenção Primária à Saúde. Depois de sintetizar o conhecimento, foram apontadas medidas necessárias para escolher a melhor abordagem do tema na Atenção Primária à Saúde. Foi realizado um estudo de revisão integrativa, utilizando as bases de dados: Medline, Lilacs, Web of Science e Scopus, publicados entre janeiro de 2003 e dezembro de 2013. Foram avaliados sistematicamente artigos que discutiam o câncer em crianças e adolescentes na Atenção Básica. Um total de 362 artigos foi identificado. Desse total, 12 elegíveis na análise. Identificaram-se três eixos temáticos: *investigação de sinais e sintomas do câncer em crianças e adolescentes; atrasos no diagnóstico do câncer em crianças e adolescentes e acesso aos serviços de saúde*. Notou-se que o conceito de diagnóstico precoce ou suspeita de câncer como algo inerente em Atenção Primária à Saúde é ainda pouco explorado em todo o mundo. Devido a isso, as estratégias de gestão da saúde devem contemplar o tema do câncer em crianças e adolescentes. Com a criação de estruturação de um planejamento macro, é possível prever os três eixos já citados na literatura e, seguindo esses avanços, pode-se melhorar a saúde global das crianças.

PALAVRAS-CHAVE: Detecção do Câncer; Saúde da Criança; Atenção Primária à Saúde; Saúde Coletiva.

¹ Enfermeira, Doutora e Mestre em Saúde Coletiva – Epidemiologia pela Universidade Estadual de Campinas FCM/UNICAMP. E-mail: janekos@gmail.com.

² Prof. Dr. do Departamento de Saúde Coletiva da FCM/UNICAMP. Epidemiologista.

INTRODUCTION

Cancers that occur in children and adolescents (0 - 19 years) also considered childhood cancer, are marked by low incidence rates, typical histologies, favourable survival in resource-rich countries, and great psychological and social concerns.¹ These features, combined with the unique data presentation requirements for these cancers, it is recommended to study childhood cancers separately from other types of cancer.¹

Currently in Brazil, neoplasms correspond to the second leading cause of death in children over 05 years old, behind only external causes.² Although the number of new cases of childhood cancer (aged 0-19 at the date of incidence of any of their tumours) is not high, it has a big impact on the population because of its aggressive and even lethal behaviour. Childhood cancer is an important and relevant theme today.³

Childhood cancer needs to be considered regarding from different stages of the health care. Managers of Primary Health Care need to know how to prioritize, because childhood cancer like other rare morbidities, require an evidence-based approach to the delivery of effective preventive care across the life course⁴. Sometimes health managers do not include these cases as they do not have information about the means and the steps necessary in order to choose the best approach.

This review examine information available in the literature related to childhood cancer in Primary Health Care. After synthesizing the knowledge, necessary measures have been identified to choose the best approach to the subject in Primary Health Care.

METHODS

This study is an integrative review of the literature, which is an approach that can make research results more accessible, as a specific review method summarizes theoretical or empirical literature to provide a more comprehensive understanding of healthcare's phenomenon.^{5,6}

We systematically evaluated papers discussing childhood cancer in Primary Health Care. Results found were qualified to identify the gaps of knowledge in relation to this phenomenon. Furthermore, the method presents possibilities of identification of needs of future research, based on conceptual or theoretical milestones of scientific production.⁵

Research was divided into 06 distinct and sequential stages: problem identification (definition of the guiding question and respective criteria of inclusion and exclusion

based on the descriptors): literature search; data gathering; critical analysis of the included studies; results discussion; and knowledge synthesis.⁷

The main question in this integrative review was: "What is the scientific knowledge produced about the early cancer diagnosis in children under the perspective of health management?"

Search strategy

Research was made in electronic databases: Pubmed; *Literatura Latino-Americana e do Caribe em Ciências da Saúde* (LILACS), Web of Science and Scopus. Detailed search strategies are presented in Appendix A. The search was limited to studies published between January 2003 and December 2013, written in English, Portuguese or Spanish.

Terminology in health used as a basis is from DeCS, and MeSH (Medical Subject Headings), using the following keywords and/or MeSH: public health, cancer or neoplasm, child and early diagnosis or early detection of cancer. For Lilacs Databases used the same terms for Portuguese keywords to according to DeCS from Virtual Library Health: *câncer or neoplasia, criança, atenção primária à saúde or diagnóstico precoce*.

Inclusion and exclusion criteria

The criteria of inclusion established for the selection of the works were: keeping as a central theme of study. Questions about early diagnosis or childhood cancer diagnosis in Primary Health Care, or policies of management for the early diagnosis; bringing the early diagnosis as a central focus and study object were included.

Criteria of exclusion: theses or monographs; reports; text books, studies of adolescents with young adults or adults, clinical trials; tests of chemotherapy, studies on cost-benefit; discussed childhood cancer in relation to incidence, mortality, survival were not included.

RESULTS AND DISCUSSION

Included studies

From a total of 362 identified paper, 42 were included for analysis which met not only the leading question but also the criteria established before. The detailed selection process is described in Table 1. After critical analysis, 12 were included for analysis.

From 171 references found in Pubmed database, 157 were excluded, being these:46 focused on adolescents or

young adults, 19 reported on adults survived from cancer in childhood or analysis of survival, 27 were research about etiological approach, 28 were epidemiological

studies of incidence and 37 did not cover cancer, just other diseases.

Table 1 - Distribution of bibliographic references found in PubMed, Web of Science, Lilacs and Scopus databases, between the years 2003 and 2013.

Database	References Found	References with the research theme	References with the exclusive theme, after full reading
PubMed	171	14	04
Web of Science	66	15	01
Lilacs	18	05	04
Scopus	107	08	03
Total	362	42	12

Fonte: dados da pesquisa.

After this proceeding, 02 articles could not be read fully because was not available in full. In total, only 12 articles could be fully read and 08 did not cover the problem in question. There were left 4 articles from Pubmed database.

From 66 references found in Web of Science, 44 was also found in other Database, 02 were about cancer in adult or adolescent with young adults, 02 had the exclusive focus on the mortality indicator and other 03 were related to survivors and other diseases. After reading 15 articles left, only 1 showed early diagnosis under the light of health management as the main object of the study.

Of the 18 references in LILACS, 06 was also found in Pubmed, 04 were excluded for being report, 01 for being thesis, 01 for have focus on family and 01 for being another disease. There were 05 papers left for the full reading. After the full reading, 01 was excluded for having different approach, leaning 04 references.

From the 107 references by Scopus, 99 were excluded, being these: 4 focused on adolescents or young adults, 4 reported on adults survived from cancer in childhood or analysis of survival, 10 were research about etiological approach, 14 were epidemiological studies of incidence and another 67 referred to other type of disease or topic or already contained in another database.

Total of 362 identified paper, 12 were included for analysis, 04 were written by Brazilian researchers. Most of the articles have Latin American origin. As for the publication year, there is an increasing tendency in the last years, although the publications are not more than 02 per year (Table 2).

We identified 03 main themes: *Investigation of initial signs and symptoms of childhood cancer; Diagnosis delays in childhood cancer, Access to health services.* Most papers focus on the mortality indicator, or survival studies and other diseases.

Table 2 - Distribution of references included in the integrative review, database, year of publication, origin, authors, field and type of study, between 2003 and 2013.

Country's Journal	Author / year	Professional Field	Study design	Main approach*
Brazil	Rodrigues, 2003	Medicine	Descriptive	1
Brazil	Antoneli, 2004	Medicine	Descriptive and Exploration	2

Country's Journal	Author / year	Professional Field	Study design	Main approach*
Chile	Carrera, 2005	Medicine	Descriptive and Exploration	2
Chile	Villarroel, 2006	Medicine	Descriptive	1
Canadá	Dang –Tan, 2007	Epidemiology	Literature Review	2
Brazil	Cavicchioli, 2007	Nursing	Phenomenological	3
USA	Sanders, 2009	Medicine	Theoretical	3
Nigeria	Brown, 2010	Medicine	Descriptive and Exploration	2
USA	Tuttle, 2011	Medicine	Correlational Study	1
Brazil	Grabois, 2011	Public Health	Descriptive and Exploration	3
Noruega	Syse, 2011	Public Health	Correlational Study	3
Brazil	Epelman, 2012	Medicine	Descriptive	2

* Main approach: 1 - *Investigation of initial signs and symptoms of childhood cancer* 2 - *Diagnosis delays in childhood cancer* and 3 - *Access to health services*

Fonte: dados da pesquisa.

Investigation of initial signs and symptoms of childhood cancer

Childhood cancer is a rare episode when compared to other diseases in children. Many health professionals, specially paediatrician, are common do not meet everyday childhood cancer, ends up to be a factor makes it difficult to have the suspicion.⁸

Furthermore, the recognition of signs and symptoms of childhood cancer is difficult. In a vast amount of 85% of the cases, the complaints are not specific, and within this context, the professional can fear to scare the family with a diagnosis and to forward the patient to a specialized service before an uncertain diagnosis.^{8,9}

Diagnosis delays in childhood cancer

For oncology, specifically paediatric oncology, the early diagnosis of cancer is a fundamental objective. It allows an opportunity of treatment while the disease is still in the initial stage. For this, there is a need of a fast

Capacitation and continuous stimuli for the health professionals become necessary to reach better results in the childhood cancer treatment. Having the early diagnosis and recognition of risk factors it is possible not only to improve the prognostic of the cases of childhood cancer, but also have better functional results.^{9,10}

Studies indicate that cancer may also be diagnosed earlier in some social groups than others, these features must be considered in relation to access to health services, which may be important for survival.¹¹

In addition, some children may have worse health than others at diagnosis, and this should be a factor to be considered in the investigation of early signs and symptoms of childhood cancer.¹¹

action, because cancer in the childhood tends to have a short period of latency and a progressive increasing with severe complications. On the other hand, the children react faster to the treatment than the adults.¹²

The most frequent neoplasm of the eye in children is retinoblastoma, this is a rare tumour. Early detection

may allow widespread use of eye-sparing treatments, minimizing the morbidity of this disease. The presence is noted of complication – extraocular retinoblastoma – is nine times bigger when the time to forward the patient is longer than 06 months. This means a long time until the beginning of the treatment can be a proven factor of complication.^{13,14}

Studies on the time between the beginning of symptoms and the beginning of the treatment are important to know the local reality and compare the possibilities before the health management.^{13,14} In the case of Ibadan, in Nigeria, we have noted there is a longer delayed diagnosis when compared to developed countries. This shows a need in investing in doctor education to have always a suspicion and later on an investigation of clinic aspects. Another strategy for the early detection is the parents' knowledge about the disease.¹¹ The suspicion could start already at the childhood home and this would make the investigation easier.¹⁷

According to Cavicchioli,¹⁸ the parents can contribute positively to the early diagnosis, for they can detect signs and symptoms, or even modifications in the child's behaviour and daily activities. When they notice something wrong, they seek for a doctor help in places such as: Basic Units of Health, Emergency Medical Unit or scheduled appointment with health plan places and private doctors.

Access to health services

Although childhood cancer is highly treatable, it still is the main cause of death in children in Brazil. The access to health services can be decisive for the understanding of this scenario.¹⁹

Cancer diagnosis has difficulties because it is rare, and the signs and symptoms are not specific. Many people seek medical care and are common delays a long time until the definition of a precise diagnosis. A Brazilian study pointed that many parents seek restlessly for medical attention, going even to private medical services, even when they do not have the needed financial condition the treatment.¹⁸

There are inequalities in Brazil regarding the access to health services for childhood cancer treatment. These are associated to a higher rate of mortality and demonstrate inequalities in the access by the low volume of treatment for the people who live in poorer regions of the country.¹⁹

Another strategy to be considered is the inclusion of the childhood cancer's theme in the Primary Health Care agenda, strengthening the integrated planning with the creation of access network to different levels of attention, approaches to developing and dissemination preventive

health. It is include the access to the services of high complexity, in the search for decreasing the waiting time between the beginning of the complaints and the specialized treatment.^{4,19}

Two different studies pointed to the need of a structured attention network, with accessibility and resolution for the case of cancer in children.^{18,19} Furthermore, they could be seen in an integral form, respecting the biological, psychological and social questions, in which the children's family involve. This considers the technological investment for the prevention and treatment of cancer must transpose the physical conditions of these individuals, trying to understand their needs of holistic form.^{18,19}

CONCLUSION

Analysing the data we could see the majority of publications is from Brazil and these articles dealt with three axes found, being this reflex of the Health System implemented in the country, which has the Primary Health Care structure integrated to the actions of high complexity in health

It was possible to identify the scientific knowledge produced about the early cancer diagnosis in Primary Health Care. The majority of the articles treated the diagnosis in a way to search for the etiologic of the disease or even questions related to cancer survivors in childhood and possible complications in adult life. This is pointing the difficulty to establishing the early diagnosis as a social worry.

We have noticed that the concept of early diagnosis or suspicion of cancer as something inherent in Primary Health Care is still little explored all over the world.

Because of this, the management strategies for Primary Health Care must contemplate the theme of childhood cancer. By creating structuring of a macro planning it is possible to predict the three axes already mentioned in the literature, following these advances we could improve the children's health overall.

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