

# Impact of childhood cancer treatment on the sexuality of adolescent survivors: integrative review protocol

## Impacto do tratamento do câncer infantil na sexualidade dos adolescentes sobreviventes: protocolo de revisão integrativa

## Impacto del tratamiento del cáncer infantil en la sexualidad de los adolescentes sobrevivientes: protocolo de revisión integradora

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**How to cite:** Silva BLC, Silveira DR, Silva DA, Silva SA, Paula VAA, Turato ER, et al. Impact of childhood cancer treatment on the sexuality of adolescent survivors: integrative review protocol. *REVISA*. 2025; 14(1): 1219-22. Doi: <https://doi.org/10.36239/revisa.v14.n1.p1219a1222>

# REVISA

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Received: 23/10/2024  
Accepted: 22/12/2024

### RESUMO

Objetivo: identificar o impacto na sexualidade de pacientes adolescentes sobreviventes de câncer e identificar as evidências de pesquisa sobre o funcionamento sexual e fatores relacionados à disfunção. Método: trata-se de um protocolo de revisão integrativa. Uma busca foi elaborada para localizar estudos publicados sobre os impactos do tratamento do câncer infantil na sexualidade dos sobreviventes. A pesquisa inicial foi realizada em bases de dados como PubMed, BVS, LILACS e SciELO, utilizando palavras-chave relevantes. Após essa fase, as referências e instruções dos estudos selecionados serão revisadas para remoção de dados. As informações coletadas serão importadas para o software Rayyan para facilitar a seleção e análise dos estudos, com a remoção de duplicatas. A seleção dos artigos será baseada em critérios de inclusão definidos pela estratégia PCC (População, Conceito, Contexto). Cinco revisores independentes, alunos da UNICAMP, participarão do processo, que incluirá uma leitura minuciosa dos textos e registro de motivos para exclusão. Divergências entre os revisores serão resolvidas por meio de uma reunião para obter o consenso. As informações dos estudos selecionados e incluídos nesta revisão integrativa serão digitadas em um formulário próprio elaborado pelos pesquisadores e os resultados apresentados por meio de mapas, quadros, tabelas ou figuras, respondendo à pergunta de pesquisa e aos objetivos determinados neste estudo.

**Descritores:** Sexualidade; Adolescente; Sobreviventes de Câncer.

### ABSTRACT

Objective: to identify the impact on sexuality of adolescent cancer survivors and to identify research evidence on sexual functioning and factors related to dysfunction. Method: this is an integrative review protocol. A search was conducted to locate published studies on the impacts of childhood cancer treatment on survivors' sexuality. The initial search was conducted in databases such as PubMed, BVS, LILACS and SciELO, using relevant keywords. After this phase, the references and instructions of the selected studies will be reviewed for data removal. The information collected will be imported into the Rayyan software to facilitate the selection and analysis of studies, with the removal of duplicates. The selection of articles will be based on inclusion criteria defined by the PCC strategy (Population, Concept, Context). Five independent reviewers, students from UNICAMP, will participate in the process, which will include a thorough reading of the texts and recording of reasons for exclusion. Disagreements between the reviewers will be resolved through a meeting to reach consensus. The information from the studies selected and included in this integrative review will be entered into a form prepared by the researchers and the results presented through maps, charts, tables or figures, responding to the research question and the objectives determined in this study.

**Descriptors:** Sexuality; Adolescent; Cancer Survivors.

### RESUMEN

Objetivo: identificar el impacto en la sexualidad de adolescentes sobrevivientes de cáncer e identificar evidencia de investigaciones sobre el funcionamiento sexual y los factores relacionados con la disfunción. Método: se trata de un protocolo de revisión integradora. Se diseñó una búsqueda para localizar estudios publicados sobre los impactos del tratamiento del cáncer infantil en la sexualidad de los sobrevivientes. La búsqueda inicial se realizó en bases de datos como PubMed, VHL, LILACS y SciELO, utilizando palabras clave relevantes. Luego de esta fase, se revisarán las referencias e instrucciones de los estudios seleccionados para eliminar datos. La información recopilada será importada al software Rayyan para facilitar la selección y análisis de estudios, con eliminación de duplicados. La selección de artículos se basará en criterios de inclusión definidos por la estrategia PCC (Población, Concepto, Contexto). Cinco evaluadores independientes, estudiantes de la UNICAMP, participarán del proceso, que incluirá una lectura exhaustiva de los textos y el registro de los motivos de exclusión. Los desacuerdos entre revisores se resolverán mediante una reunión para llegar a un consenso. La información de los estudios seleccionados e incluidos en esta revisión integradora será ingresada en un formulario específico elaborado por los investigadores y los resultados presentados a través de mapas, cuadros, tablas o figuras, respondiendo a la pregunta de investigación y los objetivos determinados en este estudio.

**Descritores:** Sexualidad; Adolescente; Sobrevivientes de cáncer.

## Introduction

Pediatric cancer, although rare, is one of the leading causes of mortality among children and adolescents. The most common types of cancer in children, such as leukemias, tumors of the central nervous system, and lymphomas, tend to grow quickly and invasively. The identification of these tumors in early stages is essential for the treatment to be more effective and cause fewer complications<sup>1</sup>.

In Brazil, the number of new cases of childhood cancer, estimated for each year of the triennium from 2023 to 2025, is 7,930 cases. It is estimated that there are 4,230 new cases in males and 3,700 in females. Progress in the treatment of childhood cancer has been extremely significant in recent years. Currently, around 80% of children and adolescents can be cured of the disease, if diagnosed and treated early, impacting the quality of life after appropriate treatment<sup>2</sup>.

Several adverse late reproductive effects of cancer treatment can arise, such as sexual and psychosexual dysfunction, endocrine complications, and infertility. These complications can have an impact on psychological and physical well-being and can impact the ability to develop and maintain intimate relationships<sup>3</sup>.

The term childhood cancer survivors refers to individuals diagnosed with the disease from the time of diagnosis until the rest of their lives. This population experiences global distress, anxiety, depression, and post-traumatic stress respectively, which are related to sexual problems. In addition, social difficulties and delays in schooling and employment can impact survivors' ability to develop intimate relationships and achieve sexual satisfaction<sup>4</sup>.

Sexual dysfunction is related to lack of sexual desire, inability to achieve ejaculation, anxiety about sexual performance, premature ejaculation, pain during intercourse, and lack of pleasure. These factors can result in a poorer quality of life, including physical, social, and mental health; therefore, providing assessment, education, and counseling for this population is critical. Patient- and team-level barriers are described, including discomfort, lack of practitioner knowledge, and lack of patient understanding of how to approach the topic. It is worth noting that the multidisciplinary health team is responsible for initiating conversations to address the subject directly, privately, and regularly<sup>5</sup>.

In this sense, the aim was to identify the impact on the sexuality of adolescent cancer survivors and to identify research evidence on sexual functioning and factors related to dysfunction.

## Methodology

### Study design

An integrative review will be carried out. The protocol was registered in the Open Science Framework, number DOI 10.17605/OSF.IO/MBH8N.

### Search strategy and sources of information

A search strategy was devised to locate published and unpublished studies. Initially, a preliminary check was carried out in PubMed, the Virtual Health Library (VHL), the Latin American and Caribbean Literature on Health Sciences (LILACS) and the Scientific Electronic Library Online (SciELO) looking

for relevant publications that meet the proposal of this review. The keywords, descriptors and/or terms of free interest contained in the titles, abstracts and indexes were used to develop a general search strategy, considering the particularities of each database and/or online library. (Table 2). Afterwards, a search will be carried out in the reference list and citations of all studies selected for data extraction.

**Table 2.** Description of the search strategies carried out in each source of information. 2024.

Source	Search Conducted	Items Found	Search Date
Virtual Health Library	(sexuality) AND (adolescent)AND (cancer survivors)	78	06/10/2024
PUBMED	Sexuality AND Adolescent AND Cancer Survivors AND Leukaemia	26	07/10/2024
LILACS	adolescent and cancer survivors	17	30/10/2024
Scielo	adolescent and cancer survivors	9	09/10/2024

### Studies Selection

After carrying out the search strategy, the information collected from the different sources will be imported into the Rayyan - Intelligent Systematic Review software, which will be the platform for selecting and exploring the studies (OUZZANI et al., 2016). All duplicates will be removed. The selection stage will consist of the evaluation of titles and abstracts based on the inclusion criteria and the PCC strategy defined in this integrative review, where Population (P) - people with childhood cancer; Concept (C) - human sexuality; and Context (C) - Cancer survivors, defining the guiding question: What are the impacts of childhood cancer treatment on survivors' sexuality? Subsequently, the researchers will read the selected texts in detail, and they will always record the reasons for the exclusion of the text in the literature review, when necessary. The selection process will be carried out by five independent reviewers, students of the discipline, emotional and biopsychosocial aspects of sexuality in oncological diseases, from the graduate program in oncology at the State University of Campinas (UNICAMP). Any disagreements that arise between reviewers at any stage of the selection process will be resolved through a consensus meeting (PETERS et al., 2020).

### Data extraction

The information on the studies selected and included in this integrative review will be entered into a specific form prepared by the researchers, as described in Chart 3.

**Chart 3 -** Form for data extraction. 2024.

Extraction Items
Last name of the authors
Article Publication Date
Country of publication
Language

Study design
Environment/Context
Participants
Sample size
Main factors impacting the sexuality of adolescent surviving patients

## Data presentation

The results will be presented through maps, charts, tables or figures, answering the research question and the objectives determined in this study.

## Acknowledgment

This study was funded by the authors themselves.

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