

# Comic books on adolescent sexual and reproductive health: scoping review protocol

## História em quadrinhos sobre saúde sexual e reprodutiva de adolescentes: protocolo de revisão de escopo

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### ABSTRACT

**Objective:** To describe the stages of the scoping review aimed at mapping evidence on using comic books as a learning strategy in adolescent sexual and reproductive health. **Method:** This is a scoping review protocol guided by the Joanna Briggs Institute (JBI) guidelines, written by the PRISMA Extension for Scoping Reviews (PRISMA-ScR) items. This protocol will guide the process of identifying data sources and extracting and analyzing results, which will support health education actions using the technology in question in response to the increasingly emerging clinical issues in the field of adolescent sexual and reproductive health. The protocol is registered on the Open Science Framework (OSF): <https://osf.io/32sed>.

**Descriptors:** Graphic Novel; Sexual Health; Adolescent.

### RESUMO

**Objetivo:** Descrever as etapas da revisão de escopo, cuja proposta é mapear evidências sobre a utilização de histórias em quadrinhos como estratégia de aprendizagem na saúde sexual e reprodutiva de adolescentes. **Método:** Trata-se de um protocolo de revisão de escopo, orientado pelas diretrizes do Joanna Briggs Institute (JBI), escrito de acordo com os itens do PRISMA Extension for Scoping Reviews (PRISMA-ScR). Tal protocolo norteará o processo de identificação das fontes de dados, extração e análise dos resultados, o que dará suporte a ações de educação em saúde com a utilização da tecnologia em questão, frente às questões clínicas cada vez mais emergentes no âmbito da saúde sexual e reprodutiva de adolescentes. Protocolo registrado na Open Science Framework (OSF): <https://osf.io/32sed>.

**Descritores:** História em Quadrinhos; Saúde Sexual; Adolescente.

### INTRODUCTION

Technology, such as Comic Books (comics), has been used for hundreds of years to communicate, even in ancient civilizations. Various teaching methods have been developed in recent decades to facilitate communication and learning. Thus, comics, considered dynamic structures with text, images, and dialogues within a context close to an individual's reality, have positively influenced education. These educational strategies facilitate resources that aid teaching and learning, especially innovative teaching and learning methods<sup>(1,2)</sup>.

Due to its attractive and interactive approach, this type of strategy encourages its use among adolescents and young people, allowing for

the exploration of various topics. Stories told with characters that are part of the social context of this audience help create information that positively impacts adolescent sexual and reproductive health<sup>(3,4)</sup>.

Adolescence, a period between childhood and adulthood, typically occurring between the ages of 10 and 19, is marked by various physical and psychosocial changes, often including the awakening of sexual awareness. Therefore, guidance on issues related to sexual and reproductive health is essential to prevent risky situations that could lead to Sexually Transmitted Infections (STIs) and/or unplanned pregnancies<sup>(1,2)</sup>.

Adolescents must understand their bodies, the changes they undergo, and their sexuality so they can make informed and conscious decisions. Combining educational technologies with sexual and reproductive education becomes a strategy to bring educators and students closer together, facilitating the teaching and learning process and contributing to the development of these young individuals, helping them make conscious, responsible, and risk-free decisions regarding their health<sup>(3,4)</sup>.

Regarding educational technology like Comic Books (comics), it can be inferred that they can influence adolescents' knowledge and choices regarding their health, serving as an essential resource for health education, especially when addressing complex topics such as sexual and reproductive health, which are still surrounded by stigmas and cultural and social perceptions. Furthermore, comics can assist in professional interaction with young people, serving as an icebreaker<sup>(5,6)</sup>.

In light of the above and after a preliminary search in PROSPERO (International Prospective Register of Systematic Reviews), the Cochrane Database of Systematic Reviews, and JBI Evidence Synthesis, it was found that there is no scoping review or systematic review, current or ongoing, on the identified topic. Therefore, a scoping review on the use of comic books in the context of adolescent sexual and reproductive health as a learning strategy will contribute to the body of nursing evidence, providing support for actions related to adolescent sexual self-care, as well as identifying gaps in the literature on this topic. To reduce biases in the review process, a protocol was developed based on the methodological guidelines of the Joanna Briggs Institute (JBI)<sup>(7,8)</sup>.

This protocol aims to describe the stages of the scoping review, designed to map evidence

on using comic books as a learning strategy in adolescent sexual and reproductive health.

## METHOD

### Study design

The proposed scoping review will follow the JBI methodology and be registered by the Institute's recommendation<sup>(7)</sup>. For this protocol, developed based on the structure of the PRISMA Extension for Scoping Reviews (PRISMA-ScR), six methodological stages will be considered: formulating the research question; searching for relevant studies; screening studies; data extraction; data separation, summarization, and reporting; and dissemination of results<sup>(7-9)</sup>. Initially, a search was conducted to identify protocols and/or studies to avoid duplicate reviews. The following databases were used: PubMed, JBI, and PROSPERO. No scoping review on this topic or similar themes was found, justifying the need for this research. The protocol has been registered on the Open Science Framework (OSF): <https://osf.io/32sed>.

### Formulation of the research question

The Population, Context, and Concept (PCC) mnemonic structure was used to define the study question. The following terms were defined: Population: adolescents; Context: use of comic books; and Concept: learning about sexual and reproductive health. Thus, the primary research question was formulated as follows: What is the scientific evidence regarding the use of comic books as a learning strategy in the sexual and reproductive health of adolescents? To aid in data mapping, secondary questions were created: What common scenarios are adopted for addressing sexual health education for these young individuals? What impact(s) do educational interventions focusing on sexual and reproductive health have on the quality of life of adolescents?

### Identification of studies

For each component of the PCC strategy, a set of descriptors available in the Health Sciences Descriptors (DeCS) and Medical Subject Headings (MeSH) was selected. The search strategy was then guided by combining DeCS and MeSH terms. After defining the descriptors, an initial search was conducted in major databases to identify additional terms used in articles. Figure 1 presents the structured descriptors and their intersections.

DECS		MESH
Histórias em quadrinhos	OR	<i>Graphic novel</i> <i>Comics</i> <i>Educational comics</i> <i>Graphic medicine</i> <i>Graphic novels as topic</i>
	AND	
Saúde sexual e reprodutiva		<i>Sexual and reproductive health</i> <i>Sexuality</i> <i>Sex education and sexuality</i>
	AND	
Adolescentes		<i>Adolescent</i> <i>Young</i> <i>Teen</i> <i>Tennager</i>

**Figure 1** – Terms used in the search strategy. Recife, PE, Brazil, 2023

For the search, the descriptors will be used in the following databases: PubMed/MEDLINE, CAPES Portal of Journals, BVS/Bireme Regional

Portal, Embase, Scopus, Web of Science, Cochrane Library, and CAPES Theses and Dissertations Catalog, as described in Figure 2.

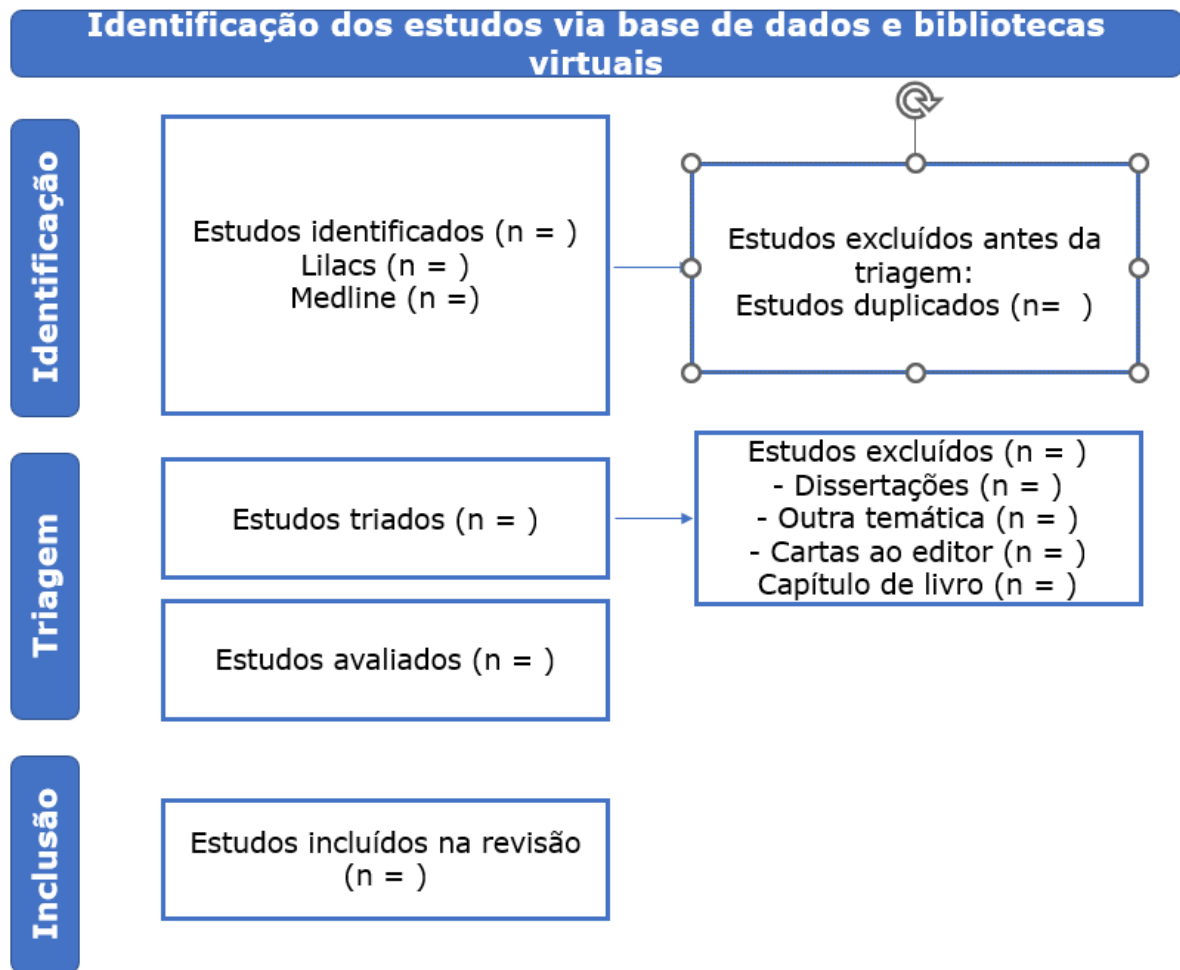
Database	Search query
BVS	((("Saúde Sexual e Reprodutiva" OR "educação sexual" OR sexualidade OR mh:"Saúde Sexual e Reprodutiva" OR mh:"educação sexual" OR mh:sexualidade OR mh:SP2.006.087*) AND (quadrinhos OR "História em Quadrinhos" OR gibis OR mangás OR cartoons OR cartoon OR gipi OR "Revistas em Quadrinhos" OR "Arte Sequencial" OR "Banda Desenhada" OR "Bandas Desenhadas" OR "Histórias em Quadrinhos" OR "Livros de Bandas Desenhadas" OR "Narrativa Figurada" OR "Narrativa Gráfica" OR "Revista de Banda Desenhada" OR "Revista em Quadrinhos" OR "Revistas de Bandas Desenhadas" OR "Revistas em Quadrinhos" OR "Revistinha" OR "Revistinha em Quadrinhos" OR "Revistinhas em Quadrinhos" OR "Romance Gráfico" OR "Romances Gráficos" OR mh:"História em Quadrinhos" OR mh:V02.700.415*))
CAPES Theses and Dissertations Catalog	(educação sexual OR Saúde Sexual e Reprodutiva) AND (quadrinhos OR gipi OR revista em quadrinhos)

Database	Search query
Scopus	( ( "Sex Education" OR "Sexual and Reproductive Health" OR "sex education" ) AND ( "Comic Book" OR "ghq" OR cartoon OR comics ) )
PubMed/ Medline	(( "Graphic Novel"[ti] OR "Graphic Novels"[ti] OR "Comic Book"[ti] OR "Comic Books"[ti] OR "HQ"[ti] OR cartoon[ti] OR comics[ti] ) AND ( "Sex Education" OR "Sexual and Reproductive Health" OR "sex education" OR sexuality OR "Sex Education"[mh] OR D012736[id] ))
CAPES Portal of Journals	: ( "Saúde Sexual e Reprodutiva" OR "educação sexual" OR sexualidade ) (TI;AB;KY) AND (HQ OR "quadrinhos" OR "História em Quadrinhos" OR "gibis" OR mangás OR cartoons OR cartoon OR gibi OR "Revistas em Quadrinhos" OR "Arte Sequencial" OR "Banda Desenhada" OR "Bandas Desenhadas" OR "Histórias em Quadrinhos" OR "Livros de Bandas Desenhadas" OR "Narrativa Figurada" OR "Narrativa Gráfica" OR "Revista de Banda Desenhada" OR "Revista em Quadrinhos" OR "Revistas de Bandas Desenhadas" OR "Revistas em Quadrinhos" OR "Revistinha" OR "Revistinha em Quadrinhos" OR "Revistinhas em Quadrinhos" OR "Romance Gráfico" OR "Romances Gráficos" )
COCHRANE LIBRARY	: ( "Sex Education" OR "Sexual and Reproductive Health" OR "sex education" OR sexuality ) AND ( "Comic Book" OR "Comic Books" OR "HQ" OR cartoon OR comics )

**Figure 2:** Database search strategies. Recife, PE, Brazil, 2023

Additionally, a reference list search will be conducted for the selected studies in the sample to retrieve references that may not have been included in the initial search. The description

of the search and article selection is presented following the Preferred Reporting Items for Systematic Review and Meta-Analyses (PRISMA) - 2020 flowchart in Figure 3<sup>(10)</sup>.



Source: PRISMA Flow Diagram adapted from Page et al., 2020.

**Figure 3** – Flowchart of the study selection process. Porto, PT, Portugal, 2022

### Article selection

Two researchers will independently select scientific articles by reviewing titles and abstracts based on the specified eligibility criteria. Subsequently, the selected articles will be read in full. Any discrepancies in the selection and analysis process will be resolved through consensus among the researchers. In case of no agreement, a third researcher will be consulted to make a final decision.

When searching for scientific evidence, studies are exported to EndNote reference manager

software, where duplicates are removed. After that, they are manually deleted. The data is then exported to the Rayyan application, which helps archive, organize, and select studies. Through Rayyan, the titles and abstracts of the studies are read, with careful selection according to the eligibility criteria. The studies selected in the previous step will be read in full by the same researchers, and those that will constitute the final sample will be selected<sup>(11,12)</sup>. Information will be extracted from the selected articles according to the study screening form shown in Figure 4.

<b>Justification for inclusion</b>	<b>YES</b>	<b>NO</b>	<b>OTHERS</b>
Publications that analyze comic books as a learning strategy in sexual and/or reproductive health			
Secondary study using a systematic review design			
Government publications			
Publications in English, Portuguese and Spanish			
<b>Justification for exclusion</b>	<b>SIM</b>	<b>NÃO</b>	<b>OUTRAS</b>
Studies in editorial formats, letters to the editor, opinion articles, bibliographic and/or integrative reviews			

**Figure 4** – Study screening form. Recife, PE, Brazil, 2023

### Data extraction

A data extraction form will be used to analyze and synthesize articles, as shown in Figure 5. This form will include information such as bibliographic details, study characteristics, and key information describing the use of comic books as an educational tool in the context

of sexual and reproductive health for adolescents. The data extraction form will be completed independently by the reviewers. Questions and doubts about extractions will be addressed through consensus between the two primary reviewers, and when unresolved, they will be discussed with a third reviewer.

<b>Extracted information</b>	
<b>Bibliographic information</b>	
Authors	
Year	
Location	
Title	
Publication type	
Journal	
Institution	
<b>Study characteristics</b>	
Objective	
Theme	
Method	Quantitative or qualitative
	Year of the study
	Study design, methods, clinical trial
	Participants, adolescents, health professionals, teachers
	Study focus: STI, pregnancy, HIV
	Study location

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**Extracted information**


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Main findings

Recomendations

Limitations

Final considerations

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**Figure 5** – Data extraction form. Recife, PE, Brazil, 2023

The data extraction form will be tested and independently validated by two research team members in a pilot phase that will include 10% of the articles from the final list of studies retrieved in the selection phase. If necessary, adjustments to the extraction categories/items will be made after discussion and consultation with team members. This procedure is important to ensure the consistency of information extraction.

All data extraction will be stored in an electronic database created in the Microsoft Excel for Windows program. With the information collected in the data extraction phase, a mapping of the research's main elements will be conducted per the study's objectives.

### Presentation of results

The summarization and presentation of results should effectively present all retrieved information, its extent, and the nature of the literature on the reviewed topic. In the scoping review, results will be presented in a tabular and descriptive format, following the guidelines of the PRISMA extension for scoping reviews<sup>(6)</sup>. This table will summarize the reviewed studies, based on the information from the data extraction form, characterizing the studies and presenting the factors relevant to the educational process on sexual and reproductive health for adolescents using comic books. A narrative synthesis of study recommendations and limitations will also be presented to provide valuable insights for future research. Results will be presented in graphs to facilitate data visualization.

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Responsibility for the text in ensuring the accuracy and completeness of any part of the paper: Oliveira MI de, Almeida TG de, Melo P de OC, Guedes TG



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