Systematic Review
https://doi.org/10.1590/1983-1447.2024.2030207.en

Factors associated with inconsistent condom use among young people: systematic review

Fatores associados ao uso inconsistente de preservativo entre jovens: revisão sistemática

Factores asociados con el uso inconsistente del condón entre los jóvenes: revisión sistemática

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How to cite this article:
Silva RS, Bossonario PA, Ferreira MEL, Andrade RLP, Bonfim RO, Alencar V, Monroe AA. Factors associated with inconsistent condom use among young people: systematic review. Rev Gaúcha Enferm. 2024;45:e2030207. https://doi.org/10.1590/1983-1447.2024.2030207.en

ABSTRACT

Objective: To identify in the literature the factors associated with the inconsistent use of conservation by the young population.

Method: Systematic review that searched for studies in six data sources in June 2023, with no publication date or language restrictions. Materials were selected by two independent reviewers who individually screened observational studies by reading the title and abstract of the articles. The studies were assessed for methodological quality and narrative synthesis.

Results: Of the 15,783 publications retrieved, nine were included. It was found that anal sex, not carrying a condom, low education, shame about buying condoms, drug use, early sexual debut and difficulties in negotiating condom use were factors associated with inconsistent condom use among the young population.

Conclusion: Multidimensional factors are associated with inconsistent condom use, permeated by sociodemographic, cultural and behavioral elements that challenge practices and policies aimed at promoting sexual and reproductive health, including the control of sexually transmitted infections.

Descriptors: Adolescent. Young adult. Risk factors. Condoms.

RESUMO

Objetivo: Identificar na literatura os fatores associados ao uso inconsistente de preservativo na população jovem.

Método: Revisão sistemática, cujas buscas por estudos foram realizadas em junho de 2023 em seis fontes de dados, sem que houvesse limites de tempo de publicação e restrições quanto ao idioma. Os materiais foram selecionados por dois revisores independentes, que realizaram individualmente a triagem de estudos observacionais por meio da leitura do título e resumo dos artigos. Os estudos foram submetidos à avaliação da qualidade metodológica e síntese narrativa.

Resultados: Foram recuperadas 15.783 publicações, sendo nove incluídas. Identificou-se que sexo anal, não carregar preservativo, baixa escolaridade, vergonha na compra de preservativos, uso de álcool e drogas, início sexual precoce e dificuldades na negociação do uso do preservativo constituíram fatores relacionados ao uso inconsistente de preservativo entre jovens.

Conclusão: Fatores multidimensionais estão associados ao uso inconsistente do preservativo, permeados por elementos sociodemográficos, culturais e comportamentais, os quais desafiam as práticas e políticas voltadas à promoção da saúde sexual e reprodutiva, incluindo o enfrentamento de infecções sexualmente transmissíveis.

Descritores: Adolescente. Adulto jovem. Fatores de risco. Preservativos.

RESUMEN

Objetivo: Identificar en la literatura los factores asociados al uso inconsistente del condón en la población joven.

Método: Revisión sistemática, cuyas búsquedas de estudios fueron realizadas en junio de 2023 en seis fuentes de datos, sin límites de tiempo de publicación ni restricciones de idioma. Los materiales fueron seleccionados por dos revisores independientes, que seleccionaron individualmente los estudios observacionales mediante la lectura del título y resumen de los artículos. Los estudios fueron sometidos a evaluación de calidad metodológica y síntesis narrativa.

Resultados: Entre las 15.783 publicaciones recuperadas, se incluyeron nueve. Se identificó que el sexo anal, no portar condón, baja escolaridad, vergüenza al comprar condones, consumo de drogas, inicio sexual temprano y dificultades para negociar el uso del condón constituyeron factores relacionados con el uso inconsistente del condón entre jóvenes.

Conclusión: Hay factores multidimensionales asociados con el uso inconsistente del condón, impregnados de elementos sociodemográficos, culturales y de comportamiento, que cuestionan las prácticas y políticas destinadas a promover la salud sexual y reproductiva, incluida la lucha contra las infecciones de transmisión sexual.

Descriptores: Adolescente. Adulto joven. Factores de riesgo. Condones.

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INTRODUCTION

Adolescents and young people aged between 10 and 24 had the highest incidence rate of sexually transmitted infections (STIs) globally between 1990 and 2019, followed by young adults, middle-aged adults and the older adult[1]. According to the World Health Organization (WHO), STIs are transmitted through oral, vaginal and/or anal sex and can be caused by viruses, bacteria or other microorganisms. They can be prevented, for example, through behavioral measures such as the use of condoms[2].

Nowadays, there is a reluctance to use condoms among young people, making them vulnerable to STIs, an issue that is made even more complex and aggravated by the occurrence of early sex; the use of licit and illicit drugs; multiple sexual partners; receiving inaccurate information about STIs and sex education, as well as restricted access to the health system[3–6]. Among the reasons for the inconsistent use of condoms among young people are difficulties in negotiating the use of the method with the sexual partner, reports that condoms diminish the pleasurable sensation, as well as beliefs that they are not susceptible to STIs[7,8].

Knowing that inconsistent condom use is a reality in this population, it is important to consider that young people need to receive information on the subject and preventive actions offered by health services, which should be adapted to the reality of this population[2]. It is essential that young people and their families have access to quality information and sex education, as well as access to the health system. School plays a fundamental role in this process, since 72.3% learn about STI prevention methods at school[7].

Reaching out to the young population, recognizing the aspects that make them vulnerable to STIs, contributes to the implementation of measures and guidelines to qualify health care in order to overcome the challenges involved in preventing the transmission of these infections.[9–11], which is often limited to programmatic actions aimed at distributing condoms.

This study is justified by the high incidence of STIs among young people, and its prerogative is to contribute to tackling aspects that weaken adherence to condom use, in order to support the design of actions and strategies aimed at promoting sexual and reproductive health, including reducing the transmission of STIs among the population studied. Thus, this study aims to identify in the literature the factors associated with inconsistent condom use in the young population.

METHOD

This is a systematic review, which provides an overview of the literature on a given topic, through a process of reviewing existing databases, in an impartial, systematized way, capable of critically evaluating and synthesizing the data from the searches carried out to assist in decision-making in the area of interest[12].

The research protocol was registered with PROSPERO (CRD42021276567). This article was prepared in accordance with the Preferred Reporting Items for Systematic Reviews and Meta-Analyses 2020 Statement (PRISMA)[13].

The acronym PECO was used to elaborate the following guiding question: "What are the factors associated with inconsistent condom use among the young population?", where P (population of interest) refers to the young population; E (exposure), to the associated factors; C (comparator), to the absence of the associated factor; and O (outcome), to inconsistent condom use.

The materials included in this review permeated primary observational studies (cross-sectional, case-control or prospective or retrospective cohort), which addressed the factors associated with inconsistent condom use, which was considered to be sometimes or never using condoms during sex[14]. The studies included had people aged between 15 and 24 as research subjects. This age group is attributed to the young population and has been defined by the WHO and the Brazilian Ministry of Health[15,16]. Thus, studies with people under 15 and over 24 were excluded, as well as those that did not clarify the age of the participants.

The primary searches for materials were carried out by one author, in June 2023, using the following electronic databases: Medline, Embase, Scopus, LILACS and Web of Science. A search was also carried out on Google Scholar. The searches used controlled vocabulary made up of descriptors and their synonyms in Portuguese, English and Spanish, indexed in the Medical Subject Headings (MeSH), Embase subject headings (EMTREE) and Health Sciences Descriptors (DeCS), as well as the free vocabulary used to write publications on the subject, which were identified in previous literature searches. The strategies used for the searches were adapted for the different databases and presented in the published protocol[13]. It is important to note that the searches did not include limits on publication time or language.

After carrying out the searches, duplicate publications were excluded and two authors individually screened the studies by reading the title and abstract of the articles found,

using the Rayyan QCRI software from the Qatar Computing Research Institute[17]. The next stage involved reading the articles in full, which served to select the material more carefully, and then extracting the data using a structured form based on the recommendations of The Joanna Briggs Institute, which included the following items: author, title, year of publication, language of publication, country of study, study design, data source, sample size, sampling, age of participants, gender of participants, exposure variables, statistical treatment, results of interest, control of confounding variables and elements for discussion[18].

The research selection stages were presented using a flowchart, as indicated by PRISMA[14]. A narrative synthesis of the general characteristics and main results of the studies included in the review was carried out and entered into a summary table. In terms of methodological quality, the articles included were assessed using an instrument recommended by The Joanna Briggs Institute for studies of aetiology and risk[18]. This instrument makes it possible to indicate the number of items adequately addressed in the studies, according to the number of items provided by the instruments. No study was excluded due to the assessment of methodological quality.

RESULTS

A total of 15,783 publications were retrieved from the databases and 283 from Google Scholar, of which 7,756 were excluded due to duplication. Next,8,310 titles/abstracts of the materials were read to assess their inclusion in this review, of which 39 were selected to be read in full. Of the eligible studies, 22 were excluded because they did not cover the population aged 15 to 24, five because they did not answer the guiding question and three because they did not clarify the age of the subject. As a result, nine articles were included in the study (Figure 1).

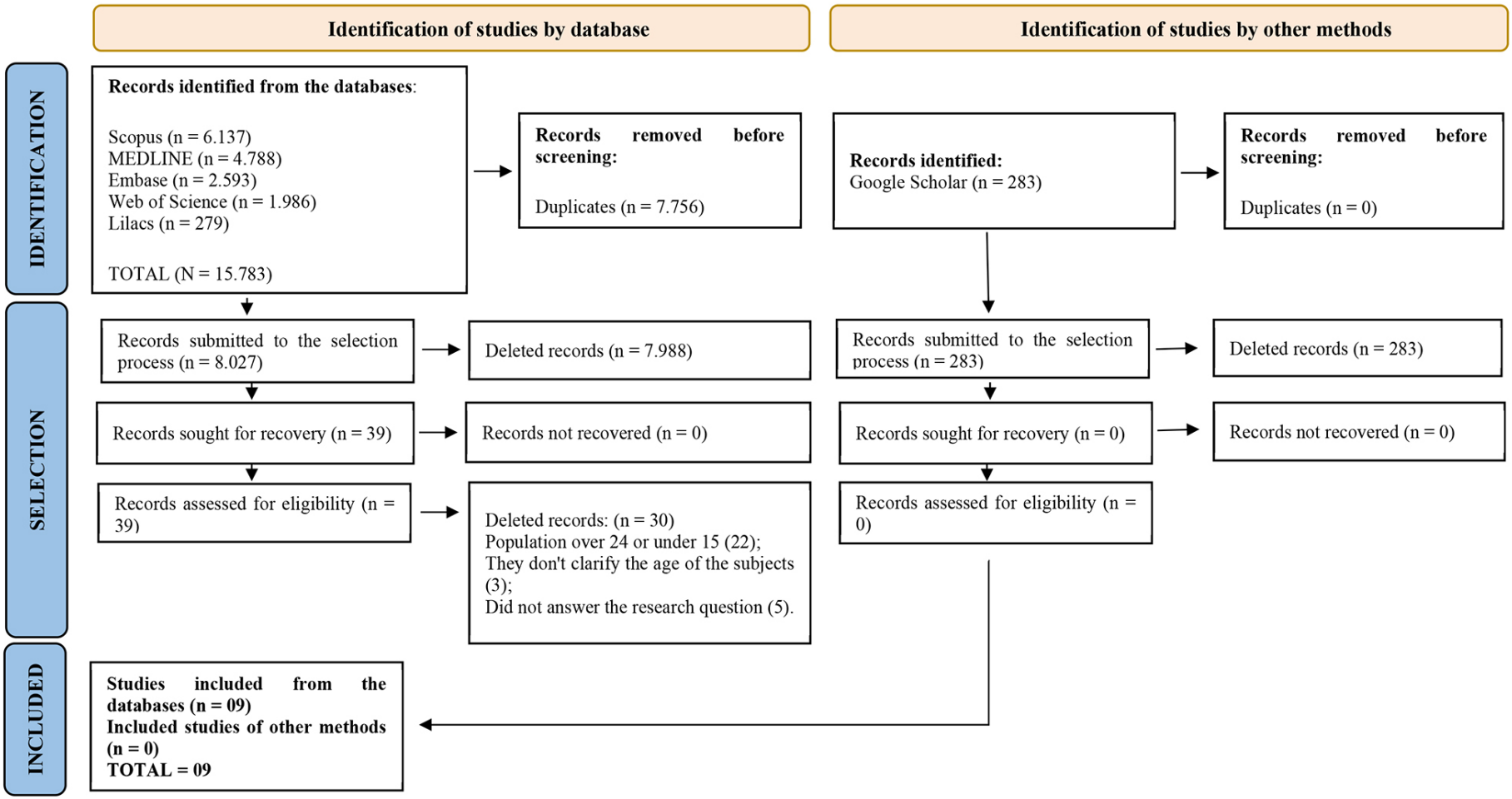
All the articles included in the review were published in English in 2010(19), 2011(20), 2012[21–22], 2013[23], 2017[24–26] and 2018[27]. These studies were conducted in countries in Africa[20–22,24–25], North America[26] and Asia[19,23,27]. All the studies had a cross-sectional design, with four including adolescents and young people of both sexes[20–21,24–25], three only males[19,26–27] and two females[22–23] (Chart 1).

The study population and exposure variables analyzed in the studies included in this review were very heterogeneous and included multidimensional factors for inconsistent condom use (Chart 1). Thus, this heterogeneity made it impossible to carry out a meta-analysis of the factors associated with inconsistent condom use among young people.

A summary of the factors associated with inconsistent condom use is shown in Chart 2.

The methodological quality of each publication was analyzed in order to identify the main limitations of the studies. None of the articles reached methodological excellence, and only two[25–26] came close to it, covering seven of the eight items assessed. The identification and control of confounding factors were the elements least addressed in these studies (Chart 3).

Figure 1 – Flowchart of the steps followed to select the articles included in the systematic review on factors associated with inconsistent condom use in young people, Ribeirão Preto, SP, Brazil, 2021.



Caption: Scopus = SciVerse Scopus; MEDLINE = Medical Literature Analysis and Retrieval System Online; Embase = Excerpta Medica Database; LILACS = Literatura Latino-Americana e do Caribe em Ciências da Saúde
Source: Adapted from Page et al. (2021).[14]

Chart 1 – Description of the articles included in the systematic review on factors associated with inconsistent condom use among young people, Ribeirão Preto, SP, Brazil, 2023.

Authors, year of publication/ Journal/ Country of study	Study design	Objective	Total adolescents and young people aged 15 to 24 (N) Sex	Main results
CHEMNASIRI et al., 2010[19]/ AIDS Education and Prevention/ Thailand	Cross-sectional	To analyze the factors associated with UIP in the population of young men who have sex with men.	827 young men:274 MSM, of whom 128 reported UIP;312 MSW, of whom 109 reported UIP; and 126 TGM, of whom 126 reported UIP	Factors associated with UIP in MSM: - Being receptive during anal intercourse (OR 2.68; 95%CI 1.51-4.76), and not carrying a condom at the time of the interview (OR 1.84; 95%CI 1.11-3.06). Factors associated with UIP in MSW: - Living far from family (OR 1.85; 95%CI 1.02-3.36), being receptive (OR 2.23; 95%CI 1.23-4.02) or receptive and insertive (OR 2.42; 95%CI 1.32-4.44) during anal sex, having been sexually coerced (OR 2.96; 95%CI 1.48-5.95). Factors associated with UIP in TGM: - Having completed technical or higher education (OR 1.82; 95%CI 1.07-3.15), history of STIs (OR 2.31; 95%CI 1.28-4.19), being worried about contracting HIV infection (OR 1.79; 95%CI 1.03-3.11) and not carrying a condom at the time of the interview (OR 1.93; 95%CI 1.12-3.30).
DAVIDOFF-GORE; LUKE, WAWIRE, 2011[20]/Aids Care/Quênia	Cross-sectional	To analyze how the various dimensions of socioeconomic status are associated with UIP and how these associations vary according to gender.	959 person-months among 261 young men and women	Factors associated with UIP: - Belonging to the fourth household health quintile compared to the fifth (healthiest) quintile (OR 2.95; 95%CI 1.21-7.18); incomplete primary education or illiteracy (OR 3.09; 95%CI 1.02-9.35); food insufficiency in women (OR 5.24; 95%CI 1.05-26.22). Factors associated with not using condoms: - Belonging to the fourth household health quintile compared to the fifth (healthiest) quintile (OR 3.04; 95%CI 1.06-8.74); Not attending school (OR 2.81; 95%CI 1.11-7.09).

Chart 1 – Cont.

Authors, year of publication/ Journal/ Country of study	Study design	Objective	Total adolescents and young people aged 15 to 24 (N) Sex	Main results
KATIKIRO; NJAU, 2012[21]/ International Scholarly Research Notices/ Tanzania	Cross-sectional	To identify the factors that motivate or hinder condom use among young people out of school in an urban environment.	348 people, 186 men and 162 young women	Factors associated with non-use of condoms among men: - Feeling embarrassed to buy condoms (AOR 1.16; 95% CI 1.12-1.34), believing that condoms reduce sexual pleasure (AOR 8.19; 95% CI 3.98-17.01). Factors associated with non-use of condoms among women: - Having forced sex (AOR 1.16; 95% CI 1.10-2.78), believing that condom use reduces sexual pleasure (AOR 8.29; 95% CI 3.39-20.73), inability to convince a partner to use a condom (AOR 1.14; 95% CI 1.04-1.28). In both sexes, it was associated with not using condoms: - Having a religion that forbids condom use (OR 5.08; 95% CI 2.22-11.86) and believing that condoms don't protect against anything (OR 7.83; 95% CI 3.32-18.95).
ZEMBE et al., 2012[22]/Plos one/ South Africa	Cross-sectional	To assess the prevalence of sexual risk behavior and HIV and the predictors of UIP among young women with multiple sexual partners.	259 young women with multiple sexual partners	Factor associated with UIP with casual partners: - Having 5 or more casual sexual partners (OR 2.43; 95% CI 1.39-4.25) Factor associated with UIP with main partners: - Having 5 or more casual sexual partners (OR 2.22; 95% CI 1.07-4.60) Factor associated with no UIP with most recent partner: - Age 20-24 (OR 4.37; 95% CI 1.67-11.81)
ZHANG et al., 2013[23]/ Sexually transmitted infections/ China	Cross-sectional	To evaluate social and behavioral predictors of risky sexual behavior and STIs, including HIV, among adolescent sex workers.	201 young women sex workers	Factors associated with UIP or non-use of condoms in the last month: - Elementary school or illiteracy (OR 3.07; 95% CI 1.09-8.62), working less than 6 months as a sex worker (OR 2.90; 95% CI 1.02-8.19); illicit drug use (OR 8.54; 95% CI 1.04-70.41); not receiving an HIV test (OR 2.35; 95% CI 1.08-5.13). Factor associated with not using a condom during the last sexual activity with the client: - Not receiving an HIV test (OR 2.88; 95% CI 1.11-7.50).

Chart 1 – Cont.

Authors, year of publication/ Journal/ Country of study	Study design	Objective	Total adolescents and young people aged 15 to 24 (N) Sex	Main results
CHIALEPEH; SUSUMAN, 2017[24]/ Journal of Asian and African Studies/ 2017/ Malawi	Cross-sectional	To examine the risk factors associated with UIP and their implication in HIV/STI transmission among sexually active young people.	1,186, 511 men and 675 young women	Factors associated with UIP in men: - 15-19 age group (OR 1.60; 95% CI 1.01-2.52), married (OR 8.76; 95% CI 4.52-16.96) and with more than one partner (OR 1.78; 95% CI 1.02-3.08). Factors associated with inconsistent condom use in women: - Age group 15-19 (OR 1.47; 95% CI 1.17-1.84), married (OR 6.19; 95% CI 4.73-8.11), with more than one sexual partner (OR 4.72; 95% CI 3.43-5.31) and high school or higher education (OR 1.46; 95% CI 1.16-1.85).
HURLEY et al., 2017[25]/Journal of Adolescent Health/ Democratic Republic of Congo	Cross-sectional	To explore the role of individual alcohol expectancies in risk behaviors among young people in the Democratic Republic of Congo.	286 men and 246 women who used alcoholic beverages	Factors associated with UIP: - Alcohol use is a factor associated with unprotected sex in men (AOR 3.41; 95% CI 2.39-4.89) and women (AOR 2.05; 95% CI 1.47-2.88); Factors associated with unprotected sex in men who use alcohol: - Age 20-24 (AOR 1.84; 95% CI 1.10-3.10); alcohol abuse (AOR 2.66; 95% CI 1.55-4.58); high (AOR 1.82; 95% CI 1.00-3.32) and moderate (AOR 1.99; 95% CI 1.02-3.87) expectations that alcohol increases the likelihood of sex or positive sexual experiences. Factors associated with unprotected sex in women who use alcohol: - Age 20-24 (AOR 2.54; 95% CI 1.46-4.42); alcohol abuse (AOR 2.66; 95% CI 1.55-4.58); moderate expectations (AOR 2.03; 95% CI 1.02-4.05) that alcohol increases the likelihood of sex or positive sexual experiences; expectation that alcohol decreases the ability to resist unwanted sex (AOR 3.54; 95% CI 1.41-8.86); expectation that alcohol decreases the ability to negotiate condom use (AOR 4.98; 95% CI 1.70-14.71).

Chart 1 – Cont.

Authors, year of publication/ Journal/ Country of study	Study design	Objective	Total adolescents and young people aged 15 to 24 (N) Sex	Main results
OIDTMAN et al., 2017[26]/ Archives of sexual behavior/ United States of America	Cross-sectional	We sought to understand whether satisfaction, anal sex without a condom and contextual factors during first intercourse are associated with sexual risk and recent condom use in young black men attracted to the same sex.	201 black men attracted to the same sex	Factors associated with recent sexual intercourse without a condom: - Emotional satisfaction at first intercourse (AOR 2.25 95% CI 1.06-4.77); time since first intercourse (AOR 1.21 95% CI 1.09-1.33 in the first hypothesis and AOR 1.14 95% CI 1.03-1.26 in the second hypothesis); First intercourse without a condom (AOR 4.95; 95% CI 2.60-9.44 in the second hypothesis and AOR 4.28; 95% CI 2.18-8.40 in the third hypothesis).
PINYAPHONG et al., 2018[27]/ Asia Pacific Journal of Public Health/ Thailand	Cross-sectional	To assess the association of sociodemographic, individual, dyadic and social factors with UIP among male university students.	1,091 male university students	Factors associated with UIP: - Not using a condom at first intercourse (AOR 6.1; 95% CI 3.7-10.1), history of STIs (AOR 2.1; 95% CI 1.0-4.2), low self-efficacy in condom use (AOR 2.4; 95% CI 1.3-4.7), high perception that condom use reduces pleasure (AOR 1.4; 95% CI 1.0-2.1), high subjective perception of the norm that significant others tolerate unprotected sex (AOR 1.9; 95% CI 1.3-2.8).

AIDS = Acquired Human Immunodeficiency Syndrome; AOR = Adjusted Odds Ratio; HIV = Human Immunodeficiency Virus; MSW: Male sex worker; MSM: Man who has sex with man; TGM: Transgender man; 95% CI = Confidence Interval (all were 95%); STI: Sexually Transmitted Infection; OR = Odds Ratio; UIP = inconsistent condom use.
Source: prepared by the authors (2023).

Chart 2 – Factors associated with inconsistent condom use among young people, Ribeirão Preto, SP, Brazil, 2023.

Category	Associated factors
Sociodemographic factors	- aged between 20 and 24[22,25] or men aged between 15 and 19[24]; - not attending school[20], low schooling[20,23–24], or high school or college education[19,24]; - married people[24]; - recent work as a sex worker[23]; - people on food insufficiency[20]; - living away from family[19].
Experiences during sexarche	- first intercourse without a condom[26–27]; - time since first intercourse[26]; - emotional satisfaction at first intercourse[26].
Options and positions assumed in sexual practices	- being receptive during anal intercourse[19]; - having multiple partners[22].
Beliefs and taboos	- religion[21]; - believe in the low effectiveness of condoms[21]; - feeling ashamed of buying them[21]; - high and moderate expectations that alcohol increases the likelihood of sex or positive sexual experiences or that it decreases the ability to resist unwanted sex or negotiate condom use[25]; - low self-efficacy regarding condom use[27]; - believing that condoms reduce pleasure during sex[21;27]; - worry about contracting HIV[19].
Communication difficulties	- difficulty negotiating condom use or being coerced or forced[19;21]
Behavioral factors	- use of illicit drugs[23]; - use of alcohol[25]; - not carrying a condom[19].
Young people's health history	- have a history of STIs[27]; - not having been tested for HIV[23].

Chart 3 – Evaluation of the methodological quality of the articles included in the systematic review on factors associated with inconsistent condom use among young people, Ribeirão Preto, SP, Brazil, 2023.

	1. Were the criteria for inclusion in the sample clearly defined?	2. Were the study subjects and the setting described in detail?	3. Was the exposure measured in a valid and reliable way?	4. Were objective, standard criteria used for measurement of the condition?	5. Were confounding factors identified?	6. Were strategies to deal with confounding factors stated?	7. Were the outcomes measured in a valid and reliable way?	8. Was appropriate statistical analysis used?
CHEMNASIRI et al., 2010[19]	Y	Y	Y	Y	N	N	Y	Y
DAVIDOFF-GORE; LUKE, WAWIRE, 2011[20]	Y	Y	N	Y	Y	Y	Y	N
KATIKIRO; NJAU, 2012[21]	Y	Y	Y	Y	N	N	Y	N
ZEMBE et al., 2012[22]	Y	Y	Y	Y	N	N	Y	Y
ZHANG et al., 2013[23]	Y	Y	Y	Y	N	N	Y	UN
CHIALEPEH; SUSUMAN, 2017[24]	Y	Y	N	N	Y	Y	Y	Y
HURLEY et al., 2017[25]	Y	Y	N	Y	Y	Y	Y	Y
OIDTMAN et al., 2017[26]	Y	N	Y	Y	Y	Y	Y	Y
PINYAPHONG et al., 2018[27]	Y	Y	Y	Y	N	N	Y	Y

Legend: Y – Yes; N – No; UN – Unclear.
Source: prepared by the authors (2023)

DISCUSSION

It was found that the factors associated with inconsistent condom use are multidimensional, ranging from sociodemographic and behavioral aspects, as well as those involving beliefs, values and experiences throughout life.

With regard to sociodemographic aspects, the results of the studies differed in terms of age[22,24,25] and education[19–20,23–24]. It is difficult to say which of these studies may be closer to reality, since some have limitations in terms of measuring exposure variables and others in terms of controlling confounding variables, even age may have been one of them. In this way, health education activities anchored in the approach to sexual behavior need to be carried out in a way that is accessible to all ages of these young people and aligned with different levels of understanding, requiring activities that are fun and induce protagonism, so that the people involved can be participatory agents, as well as multipliers of knowledge.

With regard to marital status, or even the fact of having a steady partner, this can predispose young people to STIs due to non-use or inconsistent use of condoms. This situation

may predispose married women more significantly, since in many societies and cultural contexts, men usually have more than one sexual partner[24].

With regard to unprotected sex among young people and its interface with work activities, mention should be made of people who work as sex workers[23], whose vulnerable context reveals the urgent need for intensive fieldwork in order to map and act in spaces where these professionals work, with the aim of identifying people at risk early on, as well as increasing this population's access to health actions, services and supplies. Such protagonism is necessary and is known to be recommended, since adolescent sex workers who did not receive condoms were 2.5 times more likely to have at least one STI when compared to those who were offered condoms[23].

Another aspect of a social nature identified in the study concerns food insufficiency, which was also portrayed as a factor associated with inconsistent condom use[20], in other words, a context of extreme vulnerability with food insecurity as an important marker of social inequality, which can lead to emotional, sexual and economic exchanges as coping and survival mechanisms. Such situations can predispose them to practices such as sex work or even relationships characterized by transactional sex, since there is no commercial motivation involved, but rather the exchange of sex for material support/other benefits [28]. Both sex work and transactional sex challenge the prevention of STIs, especially HIV, which requires recognizing these practices in order to design unique interventions[28]. In addition to STI prevention through consistent condom use, the broad and complex social context presented requires a broad approach, through robust social protection policies. Thus, the prevention and management of STIs requires an interface with public policies that contribute to the social support of people, especially those who live far from family members, with the prerogative of guaranteeing incentives and social benefits for the food security of adolescents and young people in situations of vulnerability.

With regard to the identification of experiences during the sexarche of young people as determinants of inconsistent condom use[26,27], these reflect social conceptions, values, feelings, learning, as well as effective access to health and educational actions and services for seeking and sharing information and obtaining supplies. Thus, there is an urgent need to reflect on the extent to which health education activities with themes aimed at sexual and reproductive health, including STI prevention, are present and aligned with the needs and demands of adolescents and young people in their different contexts and moments of life, both for motivation and empowerment for the sustained use of condoms in sexual relations, as well as in the sense of presenting and problematizing other potential technologies available, such as the combined prevention mandala.

In relation to sexual options and practices, there was an association between assuming a receptive position during anal intercourse and inconsistent condom use[19], showing the position of dominance of the person occupying the insertive position, requiring guidance on the different risks of HIV transmission, since the risk is increased when it comes to receptive anal sex, followed by insertive anal sex, receptive vaginal sex and insertive vaginal sex[29].

Studies[21,25,27] reinforce that beliefs and taboos prevent consistent condom use. Therefore, in health education activities, these issues need to be addressed in order to demystify condom use and sensitize young people to the importance of sustained use for STI prevention. Important challenges include breaking with current beliefs and taboos, since not even concern about contracting HIV[19] and having had a history of STIs[27] have been enough to transform the highly vulnerable behavior of the population studied.

Another aspect that reveals pertinent challenges in negotiating condom use concerns communication between sexual partners, with the underlying dynamic being the configuration of power relations through the sovereignty of one of the partners in the decision-making process[19,21]. In this sense, understanding the relational dynamics and how they influence young people's decision-making regarding condom use, considering not only fixed partnerships, but also casual ones, are elements that should be constantly evaluated during the care provided. With this in mind, discussions are needed with straight or homosexual couples, as well as with casual partnerships, in which health professionals are able to conduct successful experiences in the use of barrier methods against HIV and other STIs, as well as guidance on issues aimed at mutual agreement, especially among groups in which there are men in sexual relationships, since the male gender may have subjective perceptions of the norm that other people tolerate unprotected sex[27].

In addition, there is a need to evaluate and implement strategies and technologies with the potential to empower adolescents and young adults about risk behaviors and harm reduction, as well as to give visibility to public policies and safe spaces for reporting, with the prerogative of reducing vulnerabilities to HIV and other STIs, especially given that part of the population in question has already reported being sexually coerced and having forced sex[19,21]. In this sense, a literature review shows studies carried out in the United States and Canada, which have shown results such as reducing inconsistent condom use and sexually transmitted infections by encouraging behavioral interventions

through health education actions, mainly[30]. At the same time, another study aimed at young men showed that a home-based intervention strategy carried out in the United Kingdom also increased condom use[31].

The use of illicit drugs and alcohol has also been mentioned as a factor associated with inconsistent condom use[23,25]. In this sense, in addition to STI Control Programs reinforcing the need to carry condoms with them when counseling young people[19], broader and integrated approaches should be conceived, involving articulation with mental health actions and services for harm reduction or cessation of the use of such substances.

In relation to the role of other key figures, peer education should be mentioned in approaches aimed at young people. Although the consistent use of condoms is an ally in the prevention of STIs/HIV and unwanted pregnancies, it is important to consider the relevance of peer education activities in spaces that go beyond health units, offering serological or rapid tests for STIs/HIV[23] and information on where to buy condoms and other possible ways of preventing such infections. In this sense, it is worth noting that in addition to condom use for HIV prevention, other preventive methods can be adapted to the reality of young people and adolescents, such as Pre-Exposure Prophylaxis (PrEP), Post-Exposure Prophylaxis (PEP), harm reduction, timely diagnosis and treatment, use of water-based lubricants, as well as regular self-testing/testing for HIV and other STIs[32]. Thus, the care provided to young people includes, among other things, the permanent assessment of singularities and vulnerabilities, health education and support in decision-making in relation to the choice of preventive methods appropriate to the contexts of life and health.

With regard to analyzing the methodological quality of the materials that made up this review, it was found that the majority of the studies included did not meet high methodological standards; only two studies came close to acceptable standards, but even so with gaps that permeated the lack of adequate identification and control of confounding factors. On the other hand, these shortcomings show the potential of this review study, since it supports the need for further studies on the subject.

Among the limitations of this review, we would mention the non-inclusion of grey literature and the lack of a manual search for titles and abstracts in the references of the included studies that were related to the guiding question of this review. Furthermore, data synthesis was hampered due to the subpopulations studied, as well as the multidimensional and heterogeneous approach of the exposure variables.

CONCLUSION

Multidimensional factors associated with inconsistent condom use among young people have been identified, including: married people; recent work as a sex worker; people on food insufficiency; living far from family; first relationship without a condom; having multiple partners; religion; feeling ashamed to buy a condom; believing that condoms reduce sexual pleasure; difficulty negotiating condom use; alcohol and drug use; not carrying a condom; and having a history of HIV. These factors challenge practices and policies aimed at promoting sexual and reproductive health, including tackling sexually transmitted infections.

The studies presented very heterogeneous exposure variables and did not meet high methodological standards, showing the need for new studies on the subject that actually show the reality experienced by these young people with the challenges and barriers faced in negotiating and consistently using condoms.

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Acknowledgments:
This work was carried out with the support of the Coordination for the Improvement of Higher Education Personnel – Brazil (CAPES) – Funding Code 001 and the Unified Scholarship Program of the University of São Paulo (PUB/USP) – Research-2022/1533.

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The authors declare that there is no conflict of interest.

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Associate editor:
Fernanda Ludmilla Rossi Rocha

Received: 09.29.2023
Approved: 03.01.2024

Editor-in-chief:
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