



Experience Sexually Active Adolescents in the Use of Condoms to Prevent HIV/AIDS: Scoping Review

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ABSTRACT

Background: Sexually active adolescents are vulnerable to HIV/AIDS transmission due to various psychological, socioeconomic, and sociocultural factors. Although condoms are recognized as an effective method for preventing HIV transmission, their use among adolescents remains inconsistent and is influenced by individual experiences and social contexts. This scoping review aimed to map and synthesize evidence on adolescents' experiences of condom use for HIV/AIDS prevention.

Method: This scoping review followed the PRISMA-ScR guidelines and was guided by the Population–Exposure–Outcome–Study Design (PEOS) framework. Literature searches were conducted in PubMed, ScienceDirect, and DOAJ. Eligible studies were full-text articles published between 2021 and 2025 that explored condom use experiences among sexually active adolescents. Data were extracted and critically appraised using Joanna Briggs Institute (JBI) tools.

Result: A total of 1,448 records were identified, and eight studies met the inclusion criteria. Five major themes emerged: subjective experiences of condom use, psychosocial factors, socio-cultural norms, trauma and vulnerability, and health systems and services. Key factors influencing condom use included social stigma, limited negotiation skills, restrictive cultural norms, trauma-related experiences, and inadequate access to adolescent-friendly health services.

Conclusion: Adolescents' experiences of condom use are complex and shaped by psychosocial, sociocultural, and structural factors. Effective HIV/AIDS prevention strategies should incorporate culturally sensitive policies, evidence-based interventions, and strengthened adolescent-friendly health services to support safer sexual behaviors among adolescents.

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INTRODUCTION

Adolescence is a critical developmental period characterized by substantial biological, psychological, and social changes that influence health-related decision-making, including sexual behavior. During this stage, adolescents may become increasingly vulnerable to risky sexual practices due to curiosity, peer influence, evolving interpersonal relationships, and limited access to accurate sexual and reproductive health information. HIV/AIDS remains a major global public health concern among adolescents and young people. According to the Joint United Nations Programme on HIV/AIDS (UNAIDS), approximately 1.3 million new HIV infections occurred worldwide in 2024, with young people aged 15–24 years continuing to account for a substantial proportion of new cases (UNAIDS, 2024). Although significant progress has been achieved in HIV prevention, testing, and treatment, adolescents remain disproportionately affected by HIV, particularly in low- and middle-income countries where barriers to sexual and reproductive health services persist (WHO, 2024; Chew & Desai, 2025).

The HIV epidemic continues to present important public health challenges in the Asia-Pacific region, including Indonesia. National reports indicate that adolescents and young adults remain among the populations increasingly affected by HIV infection (Ministry of Health Republic of Indonesia, 2023). In response, the Indonesian government has strengthened its commitment to ending HIV and sexually transmitted infections (STIs) by 2030 through strategies focusing on prevention, early diagnosis, treatment expansion, and stigma reduction (Kementerian Kesehatan Republik Indonesia, 2023). However, persistent barriers related to stigma, limited sexual health literacy, inadequate access to youth-friendly services, and socio-cultural constraints continue to hinder HIV prevention efforts among adolescents (WHO, 2024; UNICEF, 2024). These challenges highlight the need for more effective and contextually appropriate interventions that address the realities of adolescents' sexual health experiences.

Condom use is widely recognized as one of the most effective, affordable, and accessible methods for preventing HIV transmission and other sexually transmitted infections. Consistent and correct condom use has been shown to significantly reduce the risk of HIV acquisition and transmission (Tibebu et al., 2022). Consequently, international organizations such as WHO, UNAIDS, and the United Nations Population Fund (UNFPA) continue to recommend condom promotion as a key component of comprehensive HIV prevention strategies alongside sexuality education, HIV testing, youth-friendly services, and biomedical prevention interventions (WHO, 2023; UNAIDS, 2024; UNFPA, 2024). Despite these recommendations, studies conducted in diverse settings have consistently reported suboptimal levels of condom use among adolescents and young people, even among those who possess adequate knowledge regarding HIV/AIDS prevention (Obeagu et al., 2023; Obeagu & Obeagu, 2024; Lwakatere et al., 2025).

Previous studies suggest that adolescents' condom use behaviors are shaped by a complex interaction of individual, interpersonal, socio-cultural, and structural factors. Psychosocial barriers such as fear of rejection, social anxiety, misconceptions regarding HIV/AIDS, low self-efficacy, and poor communication skills may reduce adolescents' willingness to use condoms despite understanding their protective benefits (Mbachu et al., 2021; Obeagu et al., 2023). Similarly, socio-cultural influences, including religious beliefs, cultural expectations, peer pressure, and gender power imbalances, often shape adolescents' sexual decision-making and their ability to negotiate condom use effectively (Baraki & Thupayagale-Tshweneagae, 2023; Mmari et al., 2024). Furthermore, evidence suggests that traumatic experiences, including sexual violence, exploitation, and adverse life events, may increase vulnerability to risky sexual behaviors while reducing adolescents' capacity to engage in protective practices (Shah et al., 2023; Gnaim-Mwassi et al., 2024; West et al., 2023).

In addition to individual and interpersonal influences, the health system plays a crucial role in shaping adolescents' experiences of condom use. Limited availability of youth-friendly services, concerns regarding confidentiality, stigma from healthcare providers, and inadequate service

readiness may discourage adolescents from accessing condoms and reproductive health information (Agu et al., 2023; Amenah et al., 2025; Gumede et al., 2025). Adolescents are more likely to seek sexual and reproductive health services when healthcare environments are accessible, confidential, non-judgmental, and responsive to their developmental needs (WHO, 2023; UNICEF, 2024). Therefore, understanding adolescents' experiences of condom use requires consideration not only of individual knowledge and attitudes but also of broader social and health-system contexts.

Although numerous studies have investigated factors associated with condom use among adolescents, the existing evidence remains fragmented across different disciplines and contexts. Most studies have focused on specific determinants such as knowledge, attitudes, stigma, cultural norms, gender dynamics, or service accessibility, while relatively few have synthesized adolescents' lived experiences and perceptions of condom use in a comprehensive manner. Moreover, no scoping review has comprehensively mapped the available evidence by integrating subjective experiences, psychosocial influences, socio-cultural norms, trauma-related vulnerabilities, and health-system determinants within a single analytical framework. This knowledge gap limits the development of holistic, adolescent-centered, and contextually appropriate HIV prevention interventions.

Therefore, this scoping review aimed to map and synthesize the available evidence regarding the experiences of sexually active adolescents in using condoms for HIV/AIDS prevention. Specifically, this review sought to identify key concepts, themes, and patterns emerging from the literature and to provide a comprehensive understanding of the factors shaping condom use experiences among adolescents. By integrating evidence across diverse contexts, the findings of this review are expected to support the development of culturally sensitive, evidence-based, and adolescent-centered HIV prevention policies and interventions aligned with current global HIV prevention priorities (UNAIDS, 2025; WHO, 2024).

METHOD

Study Design

This study employed a scoping review design to map and synthesize evidence regarding the experiences of sexually active adolescents in using condoms for HIV/AIDS prevention. The review was conducted in accordance with the Preferred Reporting Items for Systematic Reviews and Meta-Analyses Extension for Scoping Reviews (PRISMA-ScR) guidelines (Tricco et al., 2018) and the methodological framework recommended by the Joanna Briggs Institute (JBI) (Peters et al., 2020). The review question was developed using the Population–Exposure Outcome Study Design (PEOS) framework. The population consisted of sexually active adolescents, the exposure was condom use experiences, the outcome was HIV/AIDS prevention, and the study designs included qualitative, quantitative, mixed-methods, and review studies.

Eligibility Criteria

Studies were included if they met the following criteria: (1) published between January 2021 and December 2025; (2) written in English; (3) available in full-text format; (4) involved adolescents or young people aged 10–24 years as the primary study population; and (5) explored experiences, perceptions, attitudes, or factors related to condom use for HIV/AIDS prevention. Studies were excluded if they were conference abstracts, editorials, commentaries, study protocols, duplicate publications, or studies that did not specifically address adolescents' experiences of condom use. Studies focusing exclusively on pregnant or postpartum adolescents were also excluded.

Search Strategy

A comprehensive literature search was conducted on December 13, 2025, using three electronic databases: PubMed, ScienceDirect, and the Directory of Open Access Journals (DOAJ). The search strategy was developed using a combination of Medical Subject Headings (MeSH), keywords, Boolean operators (AND, OR), and truncation techniques. The primary search terms included “adolescent,” “teenager,” “youth,” “condom use,” “experience,” “perception,” “attitude,” “HIV,” and “HIV/AIDS.” The search strategy was structured using the following keyword combination: ("adolescent" OR "teenager" OR "youth" OR "young people") AND ("condom use" OR condom OR "safe sex") AND (experience* OR perception* OR attitude*) AND (HIV OR HIV/AIDS). All retrieved records were exported to Mendeley Reference Manager for duplicate removal and subsequently imported into Rayyan software to facilitate the screening and study selection process.

Study Selection

The study selection process followed the PRISMA-ScR flow diagram and consisted of four stages: identification, screening, eligibility assessment, and inclusion. A total of 1,448 records were identified through database searching, including 875 records from PubMed, 421 from ScienceDirect, and 152 from DOAJ. After removing duplicate records (n = 36) and records identified as ineligible during the initial screening process (n = 552), 860 records remained for title and abstract screening. Subsequently, 852 records were excluded because they did not meet the eligibility criteria, including studies focusing on adult populations, topics unrelated to HIV prevention, contraceptive use not involving condoms, or articles that did not explore adolescents’ experiences. Eight full-text articles met the inclusion criteria and were included in the final synthesis. The detailed study selection process is presented in Figure 1.

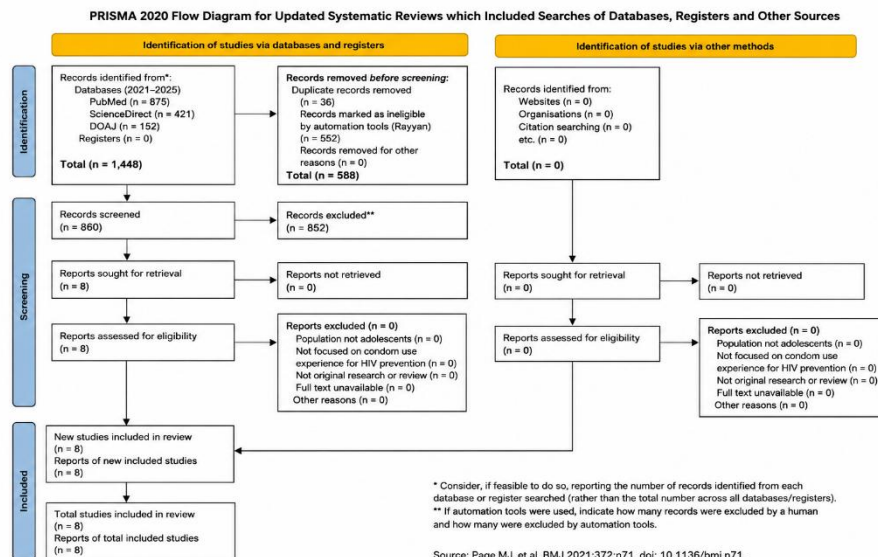


Figure 1. PRISMA-ScR flow diagram of the study selection process.

Figure 1. PRISMA-ScR Flow Diagram of the Study Selection Process

Data Extraction

Data extraction was conducted using a standardized charting form developed by the researchers. The extracted information included author, year of publication, country, study objectives, study design, participant characteristics, sample size, and key findings related to adolescents' experiences of condom use for HIV/AIDS prevention. To enhance consistency and reliability, the extraction process was independently reviewed by two reviewers. Any discrepancies were resolved through discussion until consensus was reached.

Quality Appraisal

The methodological quality of the included studies was assessed using the Joanna Briggs Institute (JBI) Critical Appraisal Tools according to the design of each study. The appraisal process was conducted to evaluate the credibility, methodological rigor, and relevance of the included evidence. The quality assessment results were reported descriptively and categorized as high, moderate, or low quality. No studies were excluded based on the appraisal results.

Data Analysis

Data were analyzed using descriptive and thematic synthesis approaches. The researchers repeatedly reviewed the findings of the included studies to identify recurring concepts, patterns, and meanings related to adolescents' experiences of condom use. Findings with similar meanings were grouped into categories and subsequently synthesized into broader themes through an iterative thematic analysis process. The final themes were reviewed and agreed upon by the research team.

Five major themes emerged from the analysis: (1) subjective experiences of condom use, (2) psychosocial factors, (3) socio-cultural norms, (4) trauma and vulnerability, and (5) health systems and services.

RESULTS AND DISCUSSION

Characteristics of Included Studies

Data extraction was conducted on eight studies that met the inclusion criteria and were included in the final synthesis. The included studies were conducted in Nigeria, Thailand, Ethiopia, Israel, Kenya, South Africa, Somalia, and Uganda. The studies employed diverse methodologies, including descriptive qualitative, phenomenological, thematic qualitative, cross-sectional, observational quantitative, and narrative review designs. Sample sizes ranged from 10 to 1,003 participants and involved adolescents, young people, women with histories of sexual trauma, and female sex workers. The extracted data included study objectives, study designs, participant characteristics, and key findings related to adolescents' experiences of condom use for HIV/AIDS prevention. Detailed characteristics of the included studies are presented in Table 1.

Table 1. Characteristics of Included Studies (n = 8)

Author	Objective	Study Design	Participants	Key Findings
Mbachu et al. (2021)	To explore adolescent beliefs and misconceptions related to condom use	Descriptive qualitative	Five FGDs involving 40 adolescents aged 10–19 years	Condoms were perceived as embarrassing and socially risky, leading to fear, shame, and misconceptions that reduced intentions to use condoms.
Leekuan et al. (2022)	To understand adolescents' reproductive health experiences	Phenomenology	In-depth interviews with 18 adolescent girls aged 18–19 years	Condoms were perceived as symbols of distrust within relationships, limiting communication and condom negotiation.
Baraki & Thupayagale-Tshweneagae (2023)	To explore sociocultural factors influencing adolescent sexual behavior	Descriptive qualitative	Interviews with 25 female adolescents aged 15–19 years	Cultural beliefs, religious norms, and peer pressure hindered condom negotiation and utilization.
Gnaim-Mwassi et al. (2024)	To explore women's experiences following sexual violence	Phenomenology	Narrative interviews with 10 women with histories of sexual trauma	Condoms triggered traumatic memories and contributed to inconsistent condom use behaviors.
Shah et al. (2023)	To identify childhood factors associated with vulnerability to sexual exploitation	Observational quantitative	Structured interviews involving 1,003 female sex workers aged >18 years	Childhood violence reduced self-efficacy and condom negotiation abilities.
Gumede et al. (2025)	To explore access to sexual and reproductive health information	Thematic qualitative	Adolescents and young people aged 15–24 years in rural communities	Stigma and limited access to services negatively influenced condom use experiences.
Dirie et al. (2025)	To assess HIV/AIDS knowledge, attitudes, and practices	Cross-sectional	Structured questionnaires involving 440 adolescents aged 10–19 years	Limited condom accessibility and environmental stigma reduced consistent condom use.
Obeagu et al. (2023)	To analyze knowledge gaps and preventive behaviors related to HIV/AIDS	Narrative review	Review of studies involving adolescents aged 10–19 years	Adequate HIV/AIDS knowledge did not necessarily translate into condom use behavior.

Thematic Synthesis

Five major themes and fifteen subthemes were identified from the thematic synthesis. These themes describe the experiences of sexually active adolescents in using condoms for HIV/AIDS prevention. The themes and subthemes are presented in Table 2.

Table 2. Main Themes and Subthemes

Main Theme	Subthemes
Subjective Experiences of Condom Use	Condoms as shame and taboo; Condoms as a symbol of distrust; Emotional ambivalence
Psychosocial Factors	Social fear and anxiety; Misconceptions regarding condoms and HIV/AIDS; Self-efficacy and negotiation skills
Socio-Cultural Norms	Cultural and religious norms; Peer pressure; Gender power relations
Trauma and Vulnerability	Sexual violence; Condoms as trauma triggers; Risky coping strategies
Health Systems and Services	Youth-friendly services; Health worker stigma; Knowledge–practice gap

Subjective Experiences of Condom Use

Several studies reported that adolescents perceived condom use as embarrassing, socially risky, and incompatible with relationship trust. Feelings of shame and fear of negative judgment discouraged adolescents from obtaining or using condoms. In addition, condoms were frequently interpreted as symbols of distrust toward sexual partners, creating emotional conflict between maintaining intimacy and protecting sexual health. These perceptions resulted in emotional ambivalence, whereby adolescents recognized the benefits of condom use but remained reluctant to use them consistently.

Psychosocial Factors

Psychosocial influences emerged as important determinants of condom use experiences. Fear of rejection, anxiety regarding social judgment, misconceptions about condoms and HIV/AIDS, and limited self-efficacy reduced adolescents' willingness to engage in safe sexual practices. Several studies also highlighted difficulties in condom negotiation, particularly among adolescents who lacked confidence and communication skills. These findings suggest that knowledge alone is insufficient to promote condom use when psychosocial barriers remain unresolved.

Socio-Cultural Norms

Socio-cultural factors significantly influenced adolescents' sexual health behaviors. Cultural and religious norms often discouraged discussions about sexuality and reproductive health, limiting opportunities to obtain accurate information and negotiate condom use. Peer pressure further reinforced negative attitudes toward condom use, while unequal gender power relations restricted adolescents' autonomy in sexual decision-making. Consequently, condom use was often shaped by social expectations rather than individual preferences.

Trauma and Vulnerability

Experiences of trauma and vulnerability were associated with inconsistent condom use. Adolescents and young women with histories of sexual violence reported emotional distress, reduced self-efficacy, and difficulties negotiating safer sexual practices. In some cases, condoms served as reminders of previous traumatic experiences, leading to avoidance behaviors and risky coping strategies. These findings highlight the importance of considering trauma-informed approaches in HIV prevention interventions.

Health Systems and Services

Health system factors also influenced adolescents' experiences with condom use. Limited access to youth-friendly services, concerns regarding confidentiality, and stigmatizing attitudes among health workers discouraged adolescents from seeking condoms and reproductive health information. Furthermore, a gap between knowledge and practice was observed, indicating that awareness of HIV prevention does not automatically translate into consistent condom use when supportive services are unavailable.

Mapping of Articles to Themes

To illustrate the distribution of evidence across the identified themes, a thematic mapping of the included studies was conducted. The results showed that socio-cultural norms, psychosocial factors, and health system influences were the most frequently reported themes. The thematic mapping is presented in Table 3.

Table 3. Mapping of Included Articles to Major Themes

Article Code	T1	T2	T3	T4	T5
A1 (Mbachu et al., 2021)	✓	✓	✓	-	✓
A2 (Leekuan et al., 2022)	✓	✓	✓	-	-
A3 (Baraki & Thupayagale-Tshweneagae, 2023)	✓	-	✓	-	-
A4 (Gnaim-Mwassi et al., 2024)	-	✓	-	✓	-
A5 (Shah et al., 2023)	-	✓	✓	✓	-
A6 (Gumede et al., 2025)	-	-	✓	-	✓
A7 (Dirie et al., 2025)	-	✓	✓	-	✓
A8 (Obeagu et al., 2023)	-	✓	-	-	✓

T1 represents subjective experiences of condom use, T2 represents psychosocial factors, T3 represents socio-cultural norms, T4 represents trauma and vulnerability, and T5 represents health systems and services. As shown in Table 3, socio-cultural norms (T3) emerged as the most frequently reported theme, appearing in six of the eight included studies. Psychosocial factors (T2) and health systems and services (T5) were also commonly identified, each appearing in five studies. Subjective experiences of condom use (T1) were reported in three studies, whereas trauma and vulnerability (T4) emerged in two studies. These findings indicate that adolescents' experiences of condom use for HIV/AIDS prevention are shaped by multiple interacting factors, including personal perceptions, psychosocial influences, socio-cultural contexts, traumatic experiences, and health system characteristics. Overall, socio-cultural norms, psychosocial barriers, and limitations within health services emerged as the most prominent factors influencing condom use among sexually active adolescents. The findings suggest that HIV/AIDS prevention interventions should not focus solely on increasing knowledge but should also address broader social, cultural, psychological, and structural barriers that affect adolescents' ability to practice safe sexual behaviors.

DISCUSSION

This scoping review identified five interrelated themes influencing the experiences of sexually active adolescents in using condoms for HIV/AIDS prevention: subjective experiences of condom use, psychosocial factors, socio-cultural norms, trauma and vulnerability, and health systems and services. Collectively, these findings demonstrate that condom use among adolescents is a multidimensional behavior shaped by the interaction of individual, interpersonal, community, and structural determinants. This perspective is consistent with the Social Ecological Model, which explains that health behaviors are influenced not only by individual knowledge and attitudes but also by relationships, social environments, institutional contexts, and public policies. Consequently, adolescent condom use cannot be adequately understood through a purely

educational lens but must be examined within the broader social and structural contexts in which adolescents live (WHO, 2023; UNAIDS, 2024; UNFPA, 2024).

The findings indicate that adolescents frequently assign subjective meanings to condom use that extend beyond its biomedical function as a preventive tool. Condoms were often perceived as symbols of embarrassment, distrust, or social impropriety, particularly within romantic relationships (Mbachu et al., 2021; Leekuan et al., 2022). Such perceptions generate emotional ambivalence whereby adolescents acknowledge the protective value of condoms while simultaneously experiencing fear of negative social judgment. Similar observations have been reported in studies examining adolescent sexual decision-making, where interpersonal acceptance and relationship maintenance often outweigh perceived health risks (Obeagu et al., 2023; Obeagu & Obeagu, 2024). This finding reinforces the argument that HIV prevention strategies should address adolescents' emotional and relational experiences rather than focusing exclusively on factual knowledge regarding HIV transmission.

Psychosocial influences emerged as another critical determinant of condom use experiences. Fear of rejection, anxiety regarding social evaluation, misconceptions about HIV/AIDS, low self-efficacy, and limited communication skills were consistently identified as barriers to condom use (Mbachu et al., 2021; Shah et al., 2023; Obeagu et al., 2023). These findings support the Theory of Planned Behavior, which proposes that health behaviors are shaped by attitudes, subjective norms, and perceived behavioral control (Latuheru et al., 2025). Adolescents who lack confidence in negotiating condom use may be unable to translate knowledge into action despite recognizing the importance of HIV prevention. Similar evidence from Tanzania demonstrated that self-efficacy and communication competence were significant predictors of condom use among sexually active youth (Lwakatare et al., 2025). Furthermore, studies among adolescents in diverse cultural settings have shown that psychosocial resilience and positive self-perception are associated with safer sexual behaviors and greater uptake of preventive health services (Chew & Desai, 2025; UNICEF, 2024). These findings suggest that interventions aimed at strengthening communication skills, negotiation capacity, and behavioral confidence may be as important as traditional educational approaches.

Socio-cultural norms represented one of the most prominent themes identified across the included studies. Cultural and religious beliefs often discourage open discussions about sexuality, thereby restricting adolescents' access to accurate information and limiting opportunities to discuss condom use with peers, partners, or family members (Baraki & Thupayagale-Tshweneagae, 2023). In many settings, condom use remains socially sensitive and is frequently associated with moral judgment, promiscuity, or mistrust within relationships. Such social expectations can discourage adolescents from obtaining condoms even when they are aware of HIV-related risks. Peer influence further reinforces these barriers through social pressure, fear of ridicule, and concerns about reputation. These findings align with previous studies highlighting the influence of community norms on adolescent sexual and reproductive health behaviors (Mmari et al., 2024; UNFPA, 2024). Gender power relations also emerged as a significant challenge, particularly for adolescent girls whose ability to negotiate condom use may be constrained by unequal relationship dynamics. According to Mmari et al. (2024), gender-transformative interventions that challenge unequal social norms are essential for improving adolescents' sexual autonomy and strengthening HIV prevention outcomes.

Another important finding concerns the influence of trauma and vulnerability on condom use experiences. Adolescents who have experienced sexual violence, exploitation, or other adverse life events often encounter additional barriers to consistent condom use (Gnaim-Mwassi et al., 2024; Shah et al., 2023). Trauma may negatively affect self-esteem, interpersonal trust, emotional regulation, and decision-making capacity, all of which are important determinants of protective sexual behavior. Furthermore, traumatic experiences may increase susceptibility to risky coping strategies, including unprotected sexual activity and substance use. West et al. (2023) demonstrated

that cumulative exposure to trauma contributes significantly to HIV-related vulnerability by increasing engagement in high-risk behaviors and reducing access to supportive social networks. These findings emphasize that HIV prevention programs should move beyond traditional risk-reduction models and incorporate trauma-informed approaches that address psychological recovery, emotional well-being, and social support systems.

The findings also underscore the importance of health systems and service environments in shaping adolescents' experiences of condom use. Access to youth-friendly services remains a critical determinant of adolescents' ability to obtain sexual and reproductive health information and preventive resources. Adolescents frequently reported concerns regarding confidentiality, lack of privacy, and stigmatizing attitudes from healthcare providers, all of which discouraged service utilization (Dirie et al., 2025; Gumede et al., 2025). Similar barriers have been documented in Nigeria, where healthcare providers' attitudes influenced adolescents' willingness to access reproductive health services (Agu et al., 2023). Conversely, facilities that provide confidential, respectful, and non-discriminatory services are associated with greater utilization of sexual and reproductive health services and improved preventive behaviors (Amenah et al., 2025; WHO, 2024). These findings support global recommendations emphasizing the expansion of adolescent-friendly health services as a key strategy for reducing HIV transmission among young people (UNAIDS, 2025; WHO, 2023).

A recurring pattern across the reviewed studies was the discrepancy between knowledge and behavior. Although many adolescents demonstrated adequate awareness of HIV/AIDS prevention, such knowledge did not consistently translate into regular condom use (Obeagu et al., 2023; Dirie et al., 2025). This observation highlights the limitations of interventions that focus exclusively on information provision. Knowledge is only one component of behavior change and may be insufficient when adolescents face psychosocial challenges, restrictive socio-cultural norms, trauma-related vulnerabilities, and structural barriers within healthcare systems. Similar conclusions have been reported in global HIV prevention literature, which increasingly recognizes that sustainable behavior change requires supportive environments that enable adolescents to act upon their knowledge (UNAIDS, 2024; UNICEF, 2024; WHO, 2024).

The findings of this review have important implications for research, practice, and policy. HIV prevention programs targeting adolescents should adopt comprehensive and multidimensional approaches that integrate sexuality education, condom negotiation training, psychosocial support, self-efficacy enhancement, and trauma-informed care. At the service level, healthcare systems should strengthen youth-friendly approaches by ensuring confidentiality, reducing stigma, improving accessibility, and involving adolescents in service design and implementation. Policy initiatives should also address gender inequalities and socio-cultural barriers that limit adolescents' capacity to engage in protective sexual behaviors. These recommendations are consistent with current global priorities emphasizing adolescent-centered care, equitable access to health services, and supportive social environments as fundamental components of effective HIV prevention strategies (UNAIDS, 2024; UNAIDS, 2025; UNFPA, 2024; WHO, 2023).

LIMITATIONS

This review has several limitations. First, the number of included studies was relatively small, which may limit the comprehensiveness of the evidence synthesis. Second, the included studies varied in terms of study design, population characteristics, and research settings, resulting in considerable heterogeneity that should be considered when interpreting the findings. Third, the review was restricted to studies published between 2021 and 2025 and limited to full-text articles, which may have excluded relevant evidence published outside the selected period or unavailable in full-text format. Finally, as a scoping review, this study aimed to map and synthesize existing evidence rather than evaluate the effectiveness of interventions or establish causal relationships between variables.

CONCLUSION

This scoping review demonstrates that adolescents' experiences of condom use for HIV/AIDS prevention are influenced by multiple interconnected factors, including subjective perceptions, psychosocial conditions, socio-cultural norms, trauma and vulnerability, as well as health system and service factors. Socio-cultural norms, psychosocial barriers, and limitations in youth-friendly health services emerged as the most frequently reported influences on condom use among sexually active adolescents. The findings highlight that improving knowledge alone is insufficient to promote consistent condom use. Effective HIV/AIDS prevention strategies should adopt a comprehensive approach that strengthens self-efficacy and condom negotiation skills, addresses stigma and gender-related barriers, incorporates trauma-informed support, and ensures access to adolescent-friendly health services. Such multidimensional interventions may contribute to safer sexual behaviors and enhance HIV/AIDS prevention efforts among adolescents.

REFERENCES

- Agu, I. C., Agu, C., Mbachu, C., & Onwujekwe, O. (2023). Impact of a capacity-building intervention on views and perceptions of healthcare providers towards the provision of adolescent sexual and reproductive health services in southeast Nigeria: A cross-sectional qualitative study. *BMJ Open*, 13(11), e073586. <https://doi.org/10.1136/bmjopen-2023-073586>
- Amenah, M. A., Novignon, J., Fenny, A. P., Agyepong, I. A., & Ensor, T. (2025). Services availability and readiness assessment of adolescent sexual and reproductive health in primary healthcare facilities: Evidence from selected districts in Ghana. *Reproductive Health*, 22(1), 1–14. <https://doi.org/10.1186/s12978-025-01955-w>
- Baraki, S. G., & Thupayagale-Tshweneagae, G. B. (2023). Socio-cultural factors perceived to influence sexual behaviours of adolescents in Ethiopia. *African Journal of Primary Health Care & Family Medicine*, 15(1), 1–9. <https://doi.org/10.4102/phcfm.v15i1.3865>
- Chew, H., & Desai, N. (2025). Transition to adult care for young people living with HIV. *Current HIV/AIDS Reports*, 22(1), 1–10. <https://doi.org/10.1007/s11904-025-00730-7>
- Dirie, N. I., Hassan, M. M., Ali, A. N., Ahmed, M. M., Ahmed, J. B., Elmi, A. H., Abdullahi, H. M., & Mohamed, L. H. (2025). Knowledge, attitudes, and practices regarding HIV/AIDS among adolescents in internally displaced persons (IDP) camps in Mogadishu, Somalia: A descriptive cross-sectional study. *AIDS Research and Treatment*, 2025, Article 5911447. <https://doi.org/10.1155/ARAT/5911447>
- Gnaim-Mwassi, N., Avieli, H., & Band-Winterstein, T. (2024). Prostitution in the shadow of life-long sexual abuse: Arab women's retrospective experiences. *Journal of Elder Abuse & Neglect*, 36(2), 117–147. <https://doi.org/10.1080/08946566.2024.2331503>
- Gumede, N. A., Hlongwane, S., Nxumalo, V., Gumede, D., Shahmanesh, M., Seeley, J., & Harling, G. (2025). Finding knowledge: How youth identify their candidacy and sources of information regarding sexual and reproductive health in rural KwaZulu-Natal, South Africa. *BMC Public Health*, 25(1), 1–14. <https://doi.org/10.1186/s12889-025-22595-6>
- Joint United Nations Programme on HIV/AIDS. (2024). UNAIDS data 2024. UNAIDS.
- Joint United Nations Programme on HIV/AIDS. (2025). Global AIDS update 2025. UNAIDS.
- Kementerian Kesehatan Republik Indonesia. (2023). Percepat identifikasi, perluas pengobatan, dan hapus stigma untuk akhiri HIV pada 2030. Kementerian Kesehatan Republik Indonesia.
- Latuheru, J. A., Yosep, I., & Sriati, A. (2025). A scoping review of factors associated with premarital sex-related risky sexual health behavior among adolescents in conservative societies based

- on the theory of planned behavior. *BMC Public Health*, 25, Article 25665. <https://doi.org/10.1186/s12889-025-25665-x>
- Leekuan, P., Kane, R., Sukwong, P., & Kulnitichai, W. (2022). Understanding sexual and reproductive health from the perspective of late adolescents in Northern Thailand: A phenomenological study. *Reproductive Health*, 19(1), 1–11. <https://doi.org/10.1186/s12978-022-01528-1>
- Lwakatere, M., Thompson, G., Msofe, J., Nyoni, W., Gillum, C., & Tureski, K. (2025). Determinants of condom use among sexually active youth in SBC intervention communities in Tanzania: A cross-sectional study. *PLOS ONE*, 20(7), e0326878. <https://doi.org/10.1371/journal.pone.0326878>
- Mbachu, C. O., Agu, I. C., Obayi, C., Eze, I., Ezumah, N., & Onwujekwe, O. (2021). Beliefs and misconceptions about contraception and condom use among adolescents in south-east Nigeria. *Reproductive Health*, 18(1), 1–12. <https://doi.org/10.1186/s12978-020-01062-y>
- Ministry of Health Republic of Indonesia. (2023). Indonesia HIV/AIDS situation report 2023. Ministry of Health Republic of Indonesia.
- Mmari, K., Simon, C., & Verma, R. (2024). Gender-transformative interventions for young adolescents: What have we learned and where should we go? *Journal of Adolescent Health*, 75(4 Suppl.), S62–S80. <https://doi.org/10.1016/j.jadohealth.2024.04.016>
- Obeagu, E. I., & Obeagu, G. U. (2024). Preventive measures against HIV among Uganda's youth: Strategies, implementation, and effectiveness. *Medicine*, 103(44), e40317. <https://doi.org/10.1097/MD.00000000000040317>
- Obeagu, E. I., Obeagu, G. U., Ede, M. O., Odo, E. O., & Buhari, H. A. (2023). Translation of HIV/AIDS knowledge into behavior change among secondary school adolescents in Uganda: A review. *Medicine*, 102(49), e36599. <https://doi.org/10.1097/MD.00000000000036599>
- Peters, M. D. J., Godfrey, C., McInerney, P., Munn, Z., Tricco, A. C., Khalil, H., & Aromataris, E. (2020). Chapter 11: Scoping reviews. In E. Aromataris & Z. Munn (Eds.), *JBIM Manual for Evidence Synthesis*. Joanna Briggs Institute. <https://doi.org/10.46658/JBIMES-20-12>
- Shah, P., Kabuti, R., Beksinska, A., Nyariki, E., Babu, H., Kungu, M., Jama, Z., Ngurukiri, P., Kaul, R., Kyegombe, N., Medley, G. F., Devries, K., Seeley, J., Weiss, H. A., Beattie, T. S., & Kimani, J. (2023). Childhood and adolescent factors shaping vulnerability to underage entry into sex work: A quantitative hierarchical analysis of female sex workers in Nairobi, Kenya. *BMJ Open*, 13(12), e078618. <https://doi.org/10.1136/bmjopen-2023-078618>
- Tibebu, N. S., Kassie, B. A., Kebede, A. A., Anteneh, T. A., Temesgan, W. Z., Aklil, M. B., Wondie, K. Y., Abegaz, M. Y., Ayalew, H. G., & Rade, B. K. (2022). Consistent condom use and its associated factors among human immunodeficiency virus-positive pregnant women in Ethiopia. *Frontiers in Medicine*, 9, 907879. <https://doi.org/10.3389/fmed.2022.907879>
- Tricco, A. C., Lillie, E., Zarin, W., O'Brien, K. K., Colquhoun, H., Levac, D., Moher, D., Peters, M. D. J., Horsley, T., Weeks, L., Hempel, S., Akl, E. A., Chang, C., McGowan, J., Stewart, L., Hartling, L., Aldcroft, A., Wilson, M. G., Garrity, C., ... Straus, S. E. (2018). PRISMA extension for scoping reviews (PRISMA-ScR): Checklist and explanation. *Annals of Internal Medicine*, 169(7), 467–473. <https://doi.org/10.7326/M18-0850>
- United Nations Children's Fund. (2024). Adolescent HIV prevention and care: Global progress report. UNICEF.
- United Nations Population Fund. (2024). Adolescent sexual and reproductive health in Asia and the Pacific. UNFPA Asia and the Pacific Regional Office.
- West, N. S., Kussaga, F., Rittenhouse, A., Duroseau, B., Knight, D., Mbwanbo, J., Likindikoki, S., & Saleem, H. T. (2023). From trauma to transmission: Exploring the intersection of

- adversity, substance use, and HIV risk in women's life histories. *International Journal for Equity in Health*, 22(1), 1–12. <https://doi.org/10.1186/s12939-023-01994-4>
- World Health Organization. (2023). Consolidated guidelines on HIV prevention, testing, treatment, service delivery and monitoring. World Health Organization.
- World Health Organization. (2024). Global HIV programme report 2024. World Health Organization.
- World Health Organization. (2024). Adolescent sexual and reproductive health fact sheet. World Health Organization.
- World Health Organization. (2024). Global health sector strategies on HIV, viral hepatitis and sexually transmitted infections 2022–2030: Progress report 2024. World Health Organization.