

REVIEW ARTICLE

Understanding the intersection of perinatal HIV and sexual and reproductive health: A scoping review protocol

DOI: 10.29063/ajrh2026/v30i4.13

Bandile E. Ndlazi* and David D. Mphuthi

Department of Health Studies, University of South Africa, Pretoria, South Africa

*For Correspondence: Email: bandile.ndlazi@yahoo.com

Abstract

With the increasing prevalence of adolescents and young adults living with perinatally acquired HIV (AYA-PHIV) globally, there is a pressing need for a holistic management approach that addresses the sexual and reproductive health and rights (SRHR) of this population. The proposed scoping review aims to systematically map the existing literature on perinatal HIV and SRHR, thereby enhancing our understanding of the global response to these issues and informing future research. The review will be conducted through a comprehensive electronic search across various databases. To facilitate the screening and reporting of relevant literature, scoping and systematic review software along with reference management tools will be utilised. A qualitative content analysis approach will be employed to gain insights into the phenomena. The review may serve as a precursor for a systematic review, guided by the findings. The collaborative approach of this review is expected to enhance the credibility of the processes and findings. (*Afr J Reprod Health* 2026; 30 [4]: 138-145).

Keywords: Scoping review, protocol, sexual and reproductive health, perinatal HIV, adolescents and young adults

Résumé

Face à la prévalence croissante du VIH périnatal chez les adolescents et jeunes adultes (AJA-VIH) à l'échelle mondiale, il est urgent de mettre en place une approche de prise en charge globale qui intègre la santé et les droits sexuels et reproductifs (SDSR) de cette population. Cette revue exploratoire vise à recenser systématiquement la littérature existante sur le VIH périnatal et les SDSR, afin d'améliorer notre compréhension de la réponse mondiale à ces problématiques et d'orienter les recherches futures. La revue sera menée au moyen d'une recherche électronique exhaustive dans diverses bases de données. Pour faciliter la sélection et la présentation des publications pertinentes, des logiciels de revue exploratoire et systématique ainsi que des outils de gestion bibliographique seront utilisés. Une analyse de contenu qualitative sera employée pour mieux comprendre ce phénomène. Cette revue pourra servir de base à une revue systématique, guidée par ses résultats. L'approche collaborative de cette revue devrait renforcer la crédibilité des processus et des conclusions (*Afr J Reprod Health* 2026; 30 [4]: 138-145).

Mots-clés : Revue exploratoire, protocole, santé sexuelle et reproductive, VIH périnatal, adolescents et jeunes adultes

Introduction

The global prevalence of adolescents and young adults living with HIV, particularly those with perinatally acquired HIV is increasing. According to the 2024 UNICEF report, approximately 1.55 million adolescents aged 10-19 and 3.1 million individuals aged 15-24 are living with HIV.¹ This increasing population of adolescents and young adults growing up with HIV presents various challenges related to physical development, opportunistic infections, treatment adherence and sexual and reproductive health (SRH). Adolescents, regardless of their circumstances and

backgrounds, form a homogenous group with distinct and ever-changing needs, particularly concerning their sexual and reproductive health and rights (SRHR).² The 2021 global estimate indicated that around 1.7 million adolescents aged 10-24 were living with HIV, representing 8% of the total population of people living with HIV (PLHIV).³ This population introduces unique demands to public policies and health services, particularly regarding their SRH and mental wellbeing. Understanding the SRH needs of young adolescents and young adults living with perinatally acquired HIV (AYA-PHIV) is crucial in the context of global public health.

The SRH experiences of adolescents are influenced by various socio-ecological factors, which also apply to AYA-PHIV; however, AYA-PHIV may encounter distinct socio-ecological challenges due to the multiple layers of discrimination they experience.⁴ Community norms and traditional practices determine how adolescents and young adults perceive their health, including sexual and reproductive health.² The intersection of HIV and SRH is complex and multifaceted with adolescents living with HIV often exposed to stigma and discrimination that hinders their access to health services and information.⁵⁻⁶ Addressing these gaps requires the development of systems and programs that can directly respond to SRH challenges faced by adolescents and young adults (AYAs) to improve their long term SRH outcomes. Creating innovative and targeted interventions that could effectively respond to AYA-PHIV's SRH needs and outcomes is crucial, primarily through optimising resources to generate robust evidence and disseminating findings to enhance understanding of effective strategies for this population and inform policy.⁴⁻⁷

Country laws and policies have the power to authorise and improve the delivery of health and social interventions for adolescents and young people.² At the highest level of governance, the United Nations (UN) collaborates with the World Health Organisation (WHO) to develop and provide credible guidance aimed at supporting countries in implementing accelerated actions to improve adolescent health and respond to their needs including SRHR.⁸ Despite the noted policy advancement, there remains a significant gap in understanding the SRH needs and experiences of adolescents and young people living with HIV globally. While several countries have initiated efforts to address these gaps from a programmatic perspective, many interventions have been developed as separate initiatives rather than integrated into existing frameworks. This highlights the need for further examination of structural and policy changes required to improve the health outcomes of AYA-PHIV.⁹ The proposed scoping review aims to identify and synthesise existing literature on AYA-PHIV and SRH needs and experiences across countries to inform future research, systematic reviews, and meta-analyses, as

well as recommend policy changes to enhance SRH outcomes for this population.

Review objectives

The objective of the proposed scoping review is to identify and assess the existing literature on SRHR of young adolescents and young adults living with HIV. As with all scoping reviews, this review intends to evaluate the available evidence in a rapidly growing area of adolescents and young adults living with perinatally acquired HIV.¹⁰ Specifically, the scoping review aims to explore and synthesise existing literature and research findings from January 2000 to June 2025 related to the SRHR experiences and needs of AYA-PHIV. Additionally, it will aim to identify research gaps, uncover emerging evidence and provide insights that can inform future interventions and research efforts designed to enhance the SRHR outcomes of this population group.

Review questions

What are the SRH needs of adolescents and young adults living with HIV across various contexts?
 What challenges do adolescents and young adults living with HIV encounter in accessing information and services related to sexual and reproductive health and rights?
 What are the structural barriers that impede access to SRH services, and their impact on the affected individuals?

Definition of terms used in this protocol

Perinatally acquired: HIV infection acquired during pregnancy
 Stigma: stigma refers to any labelling, negative stereotyping, linguistic separation, exclusion, status loss and power asymmetry, typically committed based on one's gender identity, sex, sexual orientation, drug use, sex work, and HIV status.¹¹⁻¹²
 Reproductive health: refers to a state of complete physical, mental, and social well-being, encompassing not only the absence of disease or infirmity but also all matters related to the reproductive system and its functions and processes.¹³⁻¹⁴ Reproductive health therefore implies that people can have a satisfying and safe

sex life and that they can reproduce and have the freedom to decide if, when and how often to do so.^{13,14} Sexual health: refers to a state of physical, emotional, mental and social wellbeing concerning sexuality; it is not merely the absence of disease, dysfunction or infinity.¹⁴

Sexual rights: are defined within the human rights that are already recognised in national laws and legislation, international human rights documents and other consensus statements. In this case, the right of all individuals, free of coercion, discrimination and violence to the highest attainable standards of sexual health, including access to sexual healthcare services.^{13-14TI}

Methods

The proposed study will take a scoping review approach to examine the literature reporting the SRH of AYA-PHIV. The proposed scoping review will serve as a precursor to a systematic review that will be conducted and guided by the insights gained from this initial review. The rationale for this approach is to comprehensively identify the existing literature, particularly peer-reviewed studies and all the relevant evidence on SRH for AYA-PHIV. Considering the advancement in the methodology of scoping reviews, including the integration of electronic tools, a tailored framework has been developed to suit these contemporary practices. The protocol for the scoping review is structured around specific objectives and review questions, and the review process will follow a series of defined steps within the framework: a) conducting literature searches and identification, b) selecting appropriate literature and deduplication, c) determining the eligibility of literature, d) data extraction, charting and coding, and e) summarising and reporting the results.

Searching and identification of literature

A systematic search will be conducted across multiple databases, including PubMed, Scopus, Web of Science and Google Scholar from February to July 2025. To streamline our search and ensure relevance, the review will employ a set of targeted keywords such as "young people/ living/ born with

HIV," "sexual reproductive health," "vertical HIV/ transmission", "maternally acquired" perinatal HIV, "born with HIV", "stigma and health care 'access'" "family planning", "contraceptives". "sex education", "sexuality and growing up with Hiv. The review will include studies published between January 2000 and June 2025 that specifically addressed SRH issues among AYA-PHIV.

Inclusion criteria

The selection criteria for this scoping review will encompass original research articles published in peer-reviewed journals. Considering the limited attention given to the topic, the search will look at available literature from January 2000 to June 2025, regardless of the country of origin. Articles must be written in English or available in a translated version. The focus will be specifically on adolescents and young adults aged 10-30 living with perinatally acquired HIV, with particular attention to findings related to SRH. The age range will be expanded to include individuals up to 30 years of age, in light of the limited research available concerning AYA-PHIV. The review will encompass a variety of study designs, with basic qualitative content analysis applied to the findings. For quantitative studies, the review will include cross-sectional, randomised, and non-randomised controlled trials, as well as experimental and quasi-experimental studies. Additionally, qualitative research methodologies such as ethnography, grounded theory, and phenomenology will be considered. The proposed review will also include analytic and descriptive observational studies, action research and feasibility studies.

Exclusion criteria

This review will exclude studies in languages other than English due to limitations in interpreting and understanding keywords. Additionally, any studies published before January 2000 and after June 2025 will not be considered. Reports, abstracts and other material that are not scientifically published will also be excluded. In terms of population, studies involving participants outside the stipulated age range of 10-30 will be excluded.

Table 1: The review guiding framework

Framework category	Variables
Population	Adolescents and young people, Age: 10-30, All genders
Concept	Sexual and reproductive health, Sexual health education, Family planning services, HIV management services, Healthcare services, Sexual health communication
Context	Globally, Adolescents and young adults living with HIV, Adolescents and young adults living with perinatally acquired HIV

Furthermore, studies focusing on general challenges faced by AYA-PHIV without a specific focus on sexual and reproductive health and rights will be excluded. Lastly, studies that examine general adolescents and young people without a distinction of those living with perinatal HIV will also be excluded from this review.

Selection of appropriate literature and deduplication

The literature search will be conducted by two independent reviewers across designated databases, with the results saved in their respective libraries. All collaborators will be given a month to search for articles, perform preliminary readings and identify suitable articles as guided by the keywords and the search strategy. Each collaborator will document all articles that meet the initial selection criteria in spreadsheets which will be later consolidated for review. The pre-selected articles will specifically address SRH and HIV in a specified and predetermined population. Subsequently, the articles will be uploaded to the reference management platform, such as EndNote 20 software,¹⁵ and others, to accommodate collaborators who may not have access to EndNote. A shared library will be created to facilitate storage and pre-selection of articles based on the identified keywords. Given that the review will involve multiple reviewers utilising the same search engines and similar keywords, there's a potential for duplicate entries in the literature. To address this, deduplication will be performed on EndNote 20. After removing duplicates, the remaining manuscripts will be retained for further evaluation.

Selection of eligible literature

From the initial pool of remaining articles, the preselected literature will be exported to Rayyan software, which is designed for systematic and scoping reviews, for a comprehensive full-text review.¹⁶ Rayyan is an intelligence research collaboration platform that leverages artificial intelligence, machine learning and natural language processing.¹⁶ The review lead will create a user profile on Rayyan and register the scoping review under that profile. Subsequently, the lead will invite review collaborators to utilise the platform to upload any articles that were not included in the EndNote 20 software for further team review. Collaborators will be allowed a two week period to finalise importing additional articles into Rayyan. The use of shared electronic platforms enables researchers or collaborators to progress with the search, selection and conclusion processes without having to meet in person.

Upon the closure of the importation period, a deduplication process will be undertaken to ensure that no new or remaining duplicate articles persist. Upon completion of this process, collaborators will be granted four weeks to review the articles for further analysis using the captured keywords that will determine and serve as inclusion and exclusion criteria. Articles imported to Rayyan will undergo a thorough review that extends beyond mere keywords and abstracts.¹⁷ The primary focus will be to highlight literature that specifically mentions the focus on perinatally acquired HIV rather than living with HIV. During this evaluation period, collaborators will be blinded to prevent bias and ensure the integrity of the selection process.

Collaborators will utilise the annotation function to make notes and provide justifications for their decisions to include or exclude articles. An “maybe” option will be used for instances where the collaborator is uncertain about whether to include or exclude the article. The software will be unblinded during the collaborators' meetings to discuss discrepancies among reviewers, facilitating a consensus on the articles in question.

Data extraction, charting and coding

Data extraction will be performed independently by the collaborators guided by the Population, Concept and Context (PCC) framework, as well as the objectives and the inclusion/exclusion criteria established for the review.¹⁷⁻¹⁸ To enhance the coordination of information captured by the collaborators, a standardised data extraction tool will be developed. Additionally, terms of reference will be developed to guide the extraction process and serve as a contractual document outlining the specific data components to be extracted and the overall extraction plan. As part of the extraction plan, a meeting will be scheduled during the first week to discuss progress and address any challenges encountered with the data extraction tool. For this scoping review, a basic qualitative content analysis will be employed.¹⁸ The analysis phase will be conducted following the steps below: Preparation phase: A deductive data extraction approach will be utilised, which is appropriate when a pre-existing framework is available.¹⁸ This approach will leverage the PCC framework, along with the review's objectives and questions. The reviewers will convene to discuss the data extraction plan and the extraction tool. As part of the planning meeting, the reviewers will evaluate the framework for suitability and make any necessary revisions. The following framework will serve as the foundational reference point:

The structured approach will ensure that the data extraction process is systemic, transparent and aligned with the objectives of the scoping review. To facilitate the qualitative content analysis, a codebook will be created collaboratively by two reviewers, each independently examining the articles to extract relevant data and identify preliminary codes and themes. The process of codebook development will be continuous,

allowing for modifications to be made at any stage leading up to the final analysis.¹⁷ Organising phase: Considering the availability of a pre-developed framework, data extraction will proceed in alignment with the framework's categories and the proposed questions.¹⁸ Following this initial analysis, a team discussion will be conducted to critically review the extracted data, ensuring that it accurately conveys the intended meanings and interpretations of the framework. This collaborative discussion will promote consensus among the reviewers, thereby enhancing the reliability and validity of the analysis and findings.

Ethical considerations

Ethical approval will not be sought for this review, as it will utilise existing published literature. The authors will ensure that all sources are appropriately cited and referenced. The review report will be submitted for publication in a peer-reviewed journal that specialises in either HIV or sexual and reproductive health. Additionally, opportunities will be pursued to present the findings at relevant conferences and to disseminate the results to programmers in the SRH sector.

Results

The findings of the scoping review will be presented following the Preferred Reporting Items for Systematic Reviews and Meta-Analysis extension for Scoping Reviews (PRISMA-ScR). PRISMA-ScR and its extensions provide a valuable framework comprising a minimum set of recommendations and guidance designed to enhance the transparency and comprehensiveness of scoping review reporting.¹⁹⁻²⁰ PRISMA-ScR framework also delineates the structure of each section and specifies the expected reporting details, offering examples of effective reporting practices for scoping reviews.¹⁸ These will include literature from various countries that focuses on SRH for AYA-PHIV, specifically those aged 10-30. The data search will include literature published as far back as the year 2000 to ensure comprehensive inclusion of diverse studies.

The findings will be organised according to the identified themes, with a clear mapping of the number of studies contributing to each theme.

Additionally, a summary table will be created detailing the study authors, publication year, the country of origin, study aims, methodology, population and key findings. The table will be reported alongside the results to provide a clear overview of the reviewed literature. The findings will comprehensively describe the available evidence and literature on SRH for AYA-PHIV across diverse contexts. The findings will highlight the SRH needs, experiences, social and systemic barriers to optimal SRH. Additionally, the scoping review will assist in identifying research gaps and invaluable insights of how healthcare systems can better support the SRH, especially AYA-PHIV.

Discussion

Several studies have repeatedly examined the SRH needs of AYPLHIV. However, there's a notable scarcity of research specifically addressing the needs of AYA-PHIV. The existing literature highlights significant SRH communication education challenges among young people, their parents, caregivers and healthcare professionals.²¹ The communication gaps restrict opportunities for effective SRH education and diminish the autonomy of young people concerning SRH.

The availability of SRH education is severely limited in clinical and social contexts, leading adolescents to seek information from peers, social media and pornography.²²⁻²³ Unfortunately, these sources often spread misinformation and expose them to inappropriate content. AYAPHIV often lack adequate preparation for this critical developmental stage, highlighting the need for comprehensive sexual education tailored to their circumstances.²⁴⁻²⁵ Schools are an ideal place for delivering SRH education and need to be utilised for this purpose, with community members and stakeholders involved in program development to ensure relevance and effectiveness.²⁶ Additionally, understanding the diverse experiences of AYA-PHIV across countries is essential for the development of interventions that allow provision and access to age appropriate SRH education to improve program outcomes.²⁷

External factors, including cultural norms and social expectations, significantly influence SRH behaviour and outcomes, affecting aspects

such as sexual debut, virginity expectations, relationships and marriage. Soon AYAPLHIV aspire to engage in healthy relationships with the hope to get married and have children; however, achieving these goals requires access to accurate information empowerment, as they constantly struggle with sexuality, disclosure and stigma.²⁸ The stigma is particularly the main challenge as it often starts at home, healthcare facility and within the community, making it challenging for this population to seek knowledge or services without fear of judgement.²³⁻²⁸⁻²⁹

To address these issues, countries must proactively develop programs that enhance access to SRH services and incorporate population focused interventions. Additionally, the competencies of healthcare providers in delivering SRH services to adolescents and young adults should be reviewed and addressed to suit the country's needs.²⁹⁻³⁰ Understanding the intersection of perinatal HIV and SRH is important for tailoring interventions that directly address the SRH gaps among AYA-PHIV.²⁵⁻³¹

Limitations

The exclusion of studies or articles published in languages other than English may introduce bias in the proposed review, while reliance on digital translation tools could result in the loss of nuance and the introduction of inaccuracies in the interpretation of meanings.

Conclusion

Several studies on SRH among AYAs and other PLHIV have been conducted and published across various countries and regions; however, there has been limited focus on the SRHR of individuals growing up with perinatally acquired HIV. This proposed scoping review seeks to systematically map, identify, and describe the existing literature that explicitly addresses the SRH for AYA-PHIV. This work aims to inform future research and policy updates. Additionally, the review will also highlight the AYA-PHIV SRH needs and gaps identified in various studies conducted globally.

A comprehensive understanding of the SRH needs and rights of AYA-PHIV across is crucial for

informing future interventions designed to enhance SRH outcomes for this population. By exploring the diverse experiences of this AYA-PHIV across different contexts, this review intends to provide valuable insights into how healthcare and community systems can better support the SRH needs of this group. The incorporation of software tools will facilitate remote participation in the review process while minimising selection bias through rigorous blinding techniques.

It is important to note that the exclusion of articles written in languages other than English and articles with participants above 30 in this review may be a limitation. To mitigate another potential limitation of publication year, the review will include literature dating back to the year 2000. The authors believe this is the first review focusing on AYA-PHIV, which will contribute to creating awareness of the growing attention to the SRH concerns and needs within this population and the necessary improvements required within the existing systems

Contribution of authors

Authors B.N and D.M conceptualised the scoping review protocol and designed the methodological framework. B.N. and DM initiated the writing of the draft manuscript, and both contributed to the completion and review of the draft manuscript and subsequently approved the final version.

References

1. UNICEF. Adolescent and HIV Treatment 2024 [updated July 2024. HIV Data]. UNICEF website.
2. World Health Organization. WHO recommendations on adolescent sexual and reproductive health and rights. Geneva World Health Organization 2018: Geneva.
3. UNAIDS. Dangerous inequalities: World AIDS Day Report; 2022. Joint United Nations Programme on HIV/AIDS 2022: Geneva, Switzerland
4. Mehta SD and Seeley J. Grand Challenges in Adolescent Sexual and Reproductive Health. *Frontiers in Reproductive Health* 2020; 2.
5. Faidas M, Stockton MA, Mphonda SM, Sansbury G, Hedrick H, Devadas J, Phanga T, Reugsegger L, Kramer J, Mortensen H, Kulisewa K, Pence BW, Bhushan NL and Gaynes BN. Stigma and discrimination faced by adolescents living with HIV and experiencing depression in Malawi. *BMC Global and Public Health* 2024; 2(1): 39.
6. Milanzi A and Wekwete NN. Sexual and Reproductive Health Issues among HIV Positive Adolescents in Gweru Rural District in Zimbabwe: A cross-sectional study. *Med Research Archives* 2024; 12(1).
7. Armstrong A, Nagata JM, Vicari M, Irvine C, Cluver L, Sohn AH, Ferguson J, Caswell G, Njenga LW, Oliveras C, Ross D, Puthanakit T, Baggaley R and Penazzato M. A Global Research Agenda for Adolescents Living With HIV. *J Acquir Immune Defic Syndr* 2018;78: 1(1):S16-S21.
8. WHO. Global Accelerated Action for the Health of Adolescents (AA-HA!), guidance to support country implementation. World Health Organization 2017: Geneva.
9. Society for Adolescents Health Medicine (SAHM). Improving Outcomes for Adolescents and Young Adults Living With HIV. *J of Adolescent Health* 2023;73(3): 605-9.
10. Munn Z, Peters MDJ, Stern C, Tufanaru C, McArthur A and Aromataris E. Systematic review or scoping review? Guidance for authors when choosing between a systematic or scoping review approach. *BMC Medical Research Methodology* 2018;18(1): 143.
11. Link BG and Phelan JC. Conceptualizing stigma. *Annual Rev of Soc.* 2001; 27(1):363-85.
12. Andersen MM, Varga S and Folker AP. On the definition of stigma. *J Eval Clin Pract* 2022; 28(5): 847-53.
13. WHO. Reproductive health strategy to accelerate progress towards the attainment of international development goals and targets. World Health Organization 2004: Geneva.
14. Glasier A, Gülmezoglu AM, Schmid GP, Moreno CG and Van Look PF. Sexual and reproductive health: a matter of life and death. *Lancet* 2006; 368(9547): 1595-607.
15. Gotschall T. EndNote 20 desktop version. *J Med Libr Assoc* 2021; 109(3): 520-522.
16. Ouzzani M, Hammady H, Fedorowicz Z, Elmagarmid A. Rayyan-a web and mobile app for systematic reviews. *Systematic Reviews* 2016;5(1).
17. Mak S and Thomas A. Steps for Conducting a Scoping Review. *J Grad Med Educ* 2022; 14(5): 565-7.
18. Pollock D, Peters MDJ, Khalil H, McInerney P, Alexander L, Tricco AC, Evans C, de Moraes EB, Godfrey CM, Pieper D, Saran A, Stern C and Munn Z. Recommendations for the extraction, analysis, and presentation of results in scoping reviews. *JB I evidence synthesis* 2023; 21(3): 520-32.
19. Sarkis-Onofre R, Catalá-López F, Aromataris E and Lockwood C. How to properly use the PRISMA Statement. *Systematic Reviews* 2021; 10(1): 117.
20. Tricco AC, Lillie E, Zarin W, O'Brien KK, Colquhoun H, Levac D, Moher D, Peters MDJ, Horsley T, Weeks L, Hempel S, Aki EA, Chang C, McGowan J, Stewart L, Hartling L, Aldcroft A, Wilson MG, Garrity C, Lewin S, Godfrey CM, Macdonald MT, Langlois EV, Soares-Weiser K, Moriarty J, Clifford T, Tuncalp O and Straus SE. PRISMA Extension for Scoping Reviews (PRISMA-ScR): Checklist and Explanation. *Ann Intern Med* 2018; 169(7): 467-73.

21. Karugaba G, Thupayagale-Tshweneagae G, Moleki MM, Mabikwa OV, Matshaba M. Determinants of health-related quality of life in young adults living with perinatally acquired HIV infection in Botswana. *South Afr J HIV Med* 2022;23(1):1362.
22. Adams L, Crowley T. Adolescent human immunodeficiency virus self-management: Needs of adolescents in the Eastern Cape. *Afr J Prim Health Care Fam Med* 2021;13(1):e1-e9.
23. McGranahan M, Bruno-McClung E, Nakyeyune J, Nsibirwa DA, Baguma C, Ogwang C, et al. Realising sexual and reproductive health and rights of adolescent girls and young women living in slums in Uganda: a qualitative study. *Reproductive Health* 2021;18(1).
24. Mudhune V, Winskell K, Bednarczyk RA, Ondenge K, Mbeda C, Kerubo E, et al. Sexual behaviour among Kenyan adolescents enrolled in an efficacy trial of a smartphone game to prevent HIV: a cross-sectional analysis of baseline data. *SAHARA J: journal of Social Aspects of HIV/AIDS Research Alliance* 2024;21(1):2320188.
25. WHO. Global Accelerated Action for the Health of Adolescents (AA-HA!), guidance to support country implementation. Geneva: World Health Organization 2017.
26. Subramanian S, Namusoke-Magongo E, Edwards P, Atujuna M, Chimulwa T, Dow D, et al. Integrated Health Care Delivery for Adolescents Living with and at Risk of HIV Infection: A Review of Models and Actions for Implementation. *AIDS and Behavior* 2023;27(1):50-63.
27. Soon CN, Kaida A, Nkala B, Dietrich J, Cescon A, Gray G, et al. Adolescent experiences of HIV and sexual health communication with parents and caregivers in Soweto, South Africa. *SAHARA-J: Journal of Social Aspects of HIV/AIDS* 2013;10(3-4):163-9.
28. Kaunda-Khangamwa BN, Kapwata P, Malisita K, Munthali A, Chipeta E, Phiri S, et al. Adolescents living with HIV, complex needs and resilience in Blantyre, Malawi. *AIDS Res Ther* 2020;17(1):35.
29. Mashamba L, Letswalo L, Mkhonto F, Ramalepa T. Barriers to the provision of youth-friendly services for adolescents living with HIV and AIDS. *International Journal of Research in Business and Social Science (2147- 4478)* 2024;13:177-85.
30. Mkumba LS, Nassali M, Benner J, Ritchwood TD. Sexual and reproductive health needs of young people living with HIV in low- and middle-income countries: a scoping review. *Reproductive Health* 2021;18(1):219.
31. Pretorius L, Andrew G, Tamaryn C, and Willan S. Interventions targeting sexual and reproductive health and rights outcomes of young people living with HIV: a comprehensive review of current interventions from sub-Saharan Africa. *Global Health Action* 2015;8(1):28454.