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Sexual and reproductive health and rights of very young adolescents in low- and middle-income countries: A narrative review

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Background. Very young adolescents (VYAs), aged 10 - 14 years, represent a critical yet frequently neglected demographic in the field of sexual and reproductive health and rights (SRHR) research and programming. This developmental stage is characterised by rapid biological, cognitive, social and emotional changes that shape future sexual and reproductive trajectories. Despite their importance, the SRHR needs of VYAs remain under-represented in policy, research and service provision, particularly in low- and middle-income countries.
Objectives. To synthesise existing evidence on the SRHR needs of VYAs, examine barriers and facilitators to service access, and identify strategies to strengthen age-appropriate SRHR interventions.
Methods. A narrative review of English-language peer-reviewed literature, grey literature and global policy documents published between 2000 and 2024 was conducted using PubMed, Scopus and Google Scholar. Twenty-three relevant sources were included and synthesised thematically.
Results. VYAs experience intersecting vulnerabilities related to early pubertal onset, restrictive gender norms, limited access to accurate SRHR information, and health systems that are primarily oriented towards older adolescents and adults. Barriers to SRHR information and services were reported in approximately half of the reviewed sources. Evidence indicates that early, context-specific interventions – particularly comprehensive sexuality education, parental engagement and adolescent-responsive health services – can improve SRHR knowledge and protective behaviours.
Conclusion. Addressing the SRHR needs of VYAs is essential for advancing public health equity and broader development goals. Integrating tailored, rights-based approaches across health, education and policy frameworks can support healthier transitions through early adolescence.

Keywords: very young adolescents; sexual and reproductive health; rights-based approach; adolescent health services; comprehensive sexuality education; sub-Saharan Africa

S Afr Med J 2026;116(7):e4290. https://doi.org/10.7196/SAMJ.2026.v116i7.4290

Early adolescence is a pivotal developmental period that shapes long-term health trajectories. Very young adolescents (VYAs), aged 10 - 14 years, undergo rapid physical, cognitive and psychosocial changes that influence sexual and reproductive health and rights (SRHR) outcomes.[1,2] Despite this critical transition, VYAs remain one of the most neglected groups in SRHR research, policy and programming. Their needs are frequently subsumed under broader adolescent health agendas, or addressed primarily in relation to older adolescents, resulting in limited age-specific interventions.[3]

This gap is particularly concerning in low- and middle-income countries (LMICs), where structural inequities, poverty, entrenched gender norms and under-resourced health systems heighten vulnerability.[3,4] In sub-Saharan Africa, early sexual debut, child marriage and harmful sociocultural practices further compound SRHR risk.[4,5] At the same time, early adolescence represents a window of opportunity: timely, developmentally appropriate interventions can improve health literacy, strengthen agency and prevent adverse outcomes such as unintended pregnancy, sexually transmitted infections and gender-based violence.[6-8]

This narrative review synthesises evidence on the SRHR needs of VYAs, examines barriers to information and services, and highlights strategies to strengthen early adolescent-focused interventions.

Methods

A narrative literature review was conducted to synthesise current evidence on SRHR among very young adolescents aged 10 - 14 years. Searches were performed in PubMed, Scopus and Google Scholar for English-language publications from 2000 to 2024 using combinations of the terms 'very young adolescents', 'early adolescence', 'sexual and reproductive health', 'comprehensive sexuality education' and 'adolescent-friendly services'. Titles and abstracts were screened, followed by full-text review.

Eligible sources included peer-reviewed empirical studies, narrative and systematic reviews, and global or regional policy and programmatic documents addressing SRHR determinants, services or policy implications relevant to early adolescence, with a particular focus on LMIC settings. Grey literature from international agencies was included where relevant. After screening, 23 sources met inclusion criteria and were synthesised thematically. Given ethical and regulatory constraints limiting empirical research among adolescents aged 10 - 14 years, the review prioritised interpretive thematic synthesis rather than quantitative aggregation.[3,9]

Results

The thematic synthesis identified five inter-related domains shaping SRHR outcomes among VYAs.

Developmental transitions during early adolescence

Pubertal onset introduces significant biological changes, including hormonal shifts that result in the development of age-appropriate secondary sexual characteristics (Table 1) and the acquisition of reproductive capability.[10,11] These changes occur alongside evolving cognitive capacity and heightened sensitivity to peer and social influence.[6] Earlier pubertal onset, particularly among girls, increases vulnerability to SRHR risks when not accompanied by age-appropriate information and supportive environments.[1,7]

Social and structural determinants

Gender norms, poverty, educational access and sociocultural practices strongly influence SRHR knowledge and agency among VYAs.[3,12] In many settings, girls face expectations related to virginity, marriageability and fertility, while boys encounter norms linked to masculinity and sexual dominance.[4] School retention consistently emerges as a protective factor through access to information, structured environments and social support.[13]

Barriers to SRHR information and services

Approximately half of the reviewed sources identified significant barriers to SRHR information and services for VYAs.[3,4] Health systems are often designed for adults or older adolescents, with limited adolescent-friendly infrastructure and provider training.[14] Legal and consent requirements, stigma surrounding early adolescent sexuality and provider discomfort further restrict access. Ethical and regulatory challenges also limit inclusion of VYAs in research, contributing to persistent evidence gaps.[9]

Facilitators and effective interventions

Evidence supports the effectiveness of comprehensive sexuality education delivered in age-appropriate and culturally sensitive formats.[13] Programmes engaging parents and caregivers improve communication and support, while adolescent-responsive health services enhance acceptability and uptake.[14] Digital platforms and school-based interventions show promise in expanding access to SRHR information in resource-limited settings.[4]

Policy and research gaps

A lack of age-disaggregated data, limited evaluation of VYA-specific interventions and under-representation of marginalised groups remain key gaps across the literature.[3,9]

Discussion

The SRHR needs of VYAs represent a critical yet under-recognised dimension of public health. This review demonstrates that early adolescence is a period of heightened vulnerability owing to the convergence of biological maturation, evolving cognitive capacity and restrictive social environments.[1,10,11] Earlier pubertal onset, in the absence of age-appropriate information and supportive services, increases exposure to risks such as unintended pregnancy, sexually transmitted infections and gender-based violence.[6-8] At the same time, this developmental stage offers a strategic opportunity for early intervention with long-term benefits.

The findings highlight a persistent misalignment between the timing of adolescents' SRHR needs and the design of existing health and education systems. Many SRHR interventions and policies remain oriented towards older adolescents, often extrapolating approaches that may not be developmentally appropriate for younger adolescents.[3,4] Such extrapolation risks overlooking the specific informational, psychosocial and service needs of VYAs, and may limit the effectiveness of SRHR programming.

A key issue emerging from the reviewed literature is the systematic exclusion of VYAs from SRHR research. Ethical and regulatory concerns – particularly those related to informed consent, parental involvement and perceived vulnerability – frequently limit the inclusion of adolescents aged 10 - 14 years in empirical studies.[3,4] While the protection of minors is essential, overly restrictive frameworks may inadvertently contribute to evidence gaps, leaving policy-makers and practitioners without adequate data to guide age-appropriate interventions. As a result, programme design often relies on indirect evidence derived from older adolescents, which may not accurately reflect the lived experiences and developmental realities of early adolescence.[9]

Emerging scholarship emphasises the need for ethically robust and developmentally sensitive research approaches that balance protection with participation.[3,4] Strategies such as assent-based models, structured caregiver engagement and context-specific consent processes have been proposed to facilitate the ethical inclusion of VYAs in SRHR research while safeguarding their wellbeing. Strengthening ethical guidance, institutional capacity and researcher training in this area is critical to improving the quality and relevance of evidence informing policy and programme development.[13,15]

Collectively, these findings underscore the need to move beyond risk-focused approaches towards rights-based, multisectoral strategies that recognise VYAs as active agents in their own health.[13,14] Integrating tailored SRHR interventions into health, education and social systems, supported by responsive policy frameworks, is essential for advancing health equity and achieving broader public health and development goals.

Conclusion

VYAs represent a critical yet neglected population in SRHR discourse. Earlier pubertal onset combined with persistent social and structural barriers underscores the need for tailored, rights-based interventions. Strengthening access to age-appropriate education and adolescent-responsive health services during early adolescence is essential for improving long-term sexual and reproductive health outcomes and advancing public health equity.

Table 1. Tanner stages of pubertal development, with approximate age ranges

Tanner stage	Female development	Male development	Age range, years*
I	Prepubertal	Prepubertal	<9 - 10
II	Breast bud formation	Testicular enlargement	9 - 11
III	Continued breast enlargement	Penile growth	10 - 13
IV	Secondary mound	Increased penile girth	11 - 14
V	Mature adult pattern	Mature adult pattern	≥13 - 15

*Age ranges are approximate, and vary by population and individual.
Adapted from Breehl and Caban.[10]

Declaration. None.

Acknowledgements. None.

Author contributions. TM conceptualised and drafted the manuscript. ZN critically reviewed the manuscript and provided academic oversight. Both authors approved the final version.

Funding. None.

Conflicts of interest. None.

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Received 1 October 2025; accepted 7 January 2026.