



BMJ Open Mapping adolescent sexual and reproductive health research in sub-Saharan Africa: protocol for a scoping review

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ABSTRACT

Introduction Previous studies have attempted to review the vast body of evidence on adolescent sexual and reproductive health (ASRH), but none has focused on a complete mapping and synthesis of the body of inquiry and evidence on ASRH in sub-Saharan Africa (SSA). Such a comprehensive scoping is needed, however, to offer direction to policy, programming and future research. We aim to undertake a scoping review of studies on ASRH in SSA to capture the landscape of extant research and findings and identify gaps for future research.

Methods and analysis This protocol is designed using the framework for scoping reviews developed by the Joanna Briggs Institute. We will include English and French language peer-reviewed publications and grey literature on ASRH (aged 10–19) in SSA published between January 2010 and June 2019. A three-step search strategy involving an initial search of three databases to refine the keywords, a full search of all databases and screening of references of previous review studies for relevant articles missing from our full search will be employed. We will search AJOL, JSTOR, HINARI, Scopus, Science Direct, Google Scholar and the websites for the WHO, UNICEF, UNFPA, UNESCO and Guttmacher Institute. Two reviewers will screen the titles, abstracts and full texts of publications for eligibility and inclusion—using Covidence (an online software). We will then extract relevant information from studies that meet the inclusion criteria using a tailored extraction frame and template. Extracted data will be analysed using descriptive statistics and thematic analysis. Results will be presented using tables and charts and summaries of key themes arising from available research findings.

Ethics and dissemination Ethical approval is not required for a scoping review as it synthesises publicly available publications. Dissemination will be through publication in a peer-review journal and presentation at relevant conferences and convening of policymakers and civil society organisations working on ASRH in SSA.

INTRODUCTION

Adolescence is a critical stage in the life of any human being because physical, cognitive, social and emotional capabilities that

Strengths and limitations of this study

- This study will be the first comprehensive scoping review study on adolescent sexual and reproductive health in sub-Saharan Africa (SSA).
- It will map the scope and nature of extant research on adolescent sexual and reproductive health and rights (SRHR) in SSA, clarify key concepts, identify key topics and countries for which a knowledge base exists, summarise this knowledge and pinpoint major areas, both substantive and geographical, where further evidence generation is required.
- A key limitation is the likely exclusion of relevant publications in languages other than French or English, in particular, Portuguese or Arabic, from SSA's Lusophone or Arab-speaking countries.

are instrumental across the life-course are developed during this stage.¹ Crucially, these include capabilities related to sexuality and reproduction—as adolescence is associated with the rapid development of the reproductive organs, the onset of menarche² and the beginning of sexual activity.^{3–5} Despite being characterised as the healthiest period in the life of an individual, behaviours that could jeopardise the immediate and future health and well-being are learnt and established at this age.⁶ However, adolescence also offers enormous opportunities to amend unhealthy behaviours before they become entrenched. The Lancet Commission on health and well-being of adolescents determined that investment in adolescents' health, education, family and legal support would yield 'a triple dividend of benefits' related to the development of critical capabilities during adolescence, future adult-health trajectories and secure the welfare of the next generation.⁷ The health and well-being of adolescents and young adults is, thus, receiving

increasing policy attention worldwide after many decades of neglect. There is a growing recognition that targeting adolescents is critical not only for improving reproductive health and well-being for all but also for addressing other major challenges in global health.⁷ There will be over 1.8 billion adolescents and young adults globally in 2020, and sub-Saharan Africa (SSA) will account for 22.6% of this population.⁸ Addressing the sexual and reproductive health (SRH) needs of this population is critical if SSA is to achieve the sustainable development goals, reap a potential demographic dividend⁹ and its envisaged transformation as articulated in Africa's overarching Agenda 2063.¹⁰

Yet, SSA's adolescents carry a high burden of SRH-related challenges and associated morbidity, mortality and toll on their future prospects. In many SSA countries, a large proportion of young women become pregnant during adolescence.¹¹ Pregnancy and childbirth in adolescence are linked with adverse maternal and neonatal outcomes, including the increased risks of low birth weight, preterm delivery, severe neonatal conditions, early neonatal deaths, maternal mortality and morbidity.^{11–15} Also, a large number of adolescent pregnancies in SSA resulted in unsafe abortions performed by unqualified service providers in environments lacking the minimum required medical standards resulting in complications and deaths.¹⁵ Consequently, half of all deaths resulting from unsafe abortion in SSA occur among adolescent girls.¹⁵

Besides the risk of unintended pregnancy, adolescents are also disproportionately exposed to sexually transmitted diseases. For example, adolescent girls in SSA, in particular, have the highest burden of HIV, with three in five of every new infection among this age cohort.¹⁶ Pregnancy and HIV are now the leading causes of deaths among adolescents and young adults in SSA.¹³ Adolescent girls also bear a huge burden of sexual violence, which further exacerbates their exposure to HIV.^{17–18} Despite efforts to reduce all forms of violence against girls, available records show that girls, in SSA, in particular, are disproportionately exposed to violence, with female genital mutilation and child marriage still commonly practised.^{17–22}

Adolescents' heightened risk of SRH-related morbidity and mortality reflects, among others, their limited capacity and poor access to information or service to prevent unplanned pregnancy, negotiate safe sex and consent, prevent sexually transmitted diseases or avoid sexual violence.

To redress this situation, African countries have articulated collective commitments to ensuring adolescents' access to comprehensive SRH services and supportive environments. The directions are captured in continental frameworks such as the African Union's Maputo Protocol,²³ and the Addis Ababa Declaration on Population and Development.²⁴ However, progress in the domestication and implementation of such commitments through policy, legislation or programming at subregional

and national levels has remained limited.²⁵ Two key obstacles to progress are an absence of requisite evidence needed to inform and promote national-level policy debates and processes, but also an insufficient synthesis and marshalling of relevant evidence that already exists.²⁵ A fuller understanding of the landscape of, and key gaps in, existing research and evidence on adolescent SRH in SSA is needed to help address both barriers.

To our knowledge, no prior studies have comprehensively mapped the extant body of literature on this topic in SSA. To address this gap, we aim to conduct a comprehensive scoping review, in order to map the scope and nature of extant research on adolescent sexual and reproductive health and rights (SRHR) in SSA, clarify key concepts, identify key topics and countries for which a knowledge base exists, summarise this knowledge and pinpoint major areas, both substantive and geographical, where further evidence generation is required.

We expect that the findings of the review will offer a useful basis for the planning of further research, but also for the synthesis and marshalling of existing evidence in debates and advocacy to advance evidence-informed, national-level policy and practice that protects the SRH and rights of the large population of young people in SSA.

Review questions

The review will answer the following key research questions:

1. How has the body of research on adolescent SRH (ASRH) in SSA evolved over the past decade, and what is its present profile, in terms of trends in volume, geographic and substantive focus, research approaches and Africa-led inquiry?
2. What are the extent and patterns of, and potential inequities in, adolescents' access to requisite SRH services, including contraceptives, HIV and sexually transmitted infections (STI) care, antenatal care, delivery and postnatal care, safe abortion and post-abortion care?
3. What are the key barriers to, and facilitators of, and sound programmatic approaches for, enhancing access to ASRH services across different contexts and populations?
4. What are the levels and patterns of, potential inequities in, and factors shaping access to comprehensive sexuality education (CSE), and the fidelity of CSE that is being provided?
5. What are the key barriers to, and facilitators of, and sound programmatic approaches for, enhancing access to and the fidelity of CSE?
6. What are the nature and scope of impacts of CSE receipt or non-receipt on relevant SRH outcomes among adolescents across different contexts and populations, including sexual debut and activity, teenage pregnancy and risk of STI?
7. What are the nature, scope and patterns of, and potential inequities in, the burden of harmful cultural

practices such as forced marriages and female genital mutilation among adolescents in SSA?

8. What are the key drivers of, and barriers to, and sound programmatic approaches for eliminating harmful cultural practices across different contexts and in different populations?

METHODS/DESIGN

This protocol is designed using the framework for scoping review from the Joanna Briggs Institute.²⁶ The scoping review will follow the methodological framework proposed by Arksey and O'Malley,²⁷ and its reporting will be Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) extension for scoping reviews checklist compliant.²⁸

Search strategy

We aim to identify peer-reviewed, English and French languages publications, and online grey literature on ASRH in any SSA countries published between the year January 2010 and June 2019. Grey literature will be limited to theses and technical reports that present data on ASRH. A three-step search strategy will be used to ensure that our search strategy is comprehensive. A limited preliminary search of PubMed, web of science and JSTOR will be conducted using ASRH and SSA. Analysis of the text words in the title and abstract of the papers retrieved from the initial search and of the index terms used in describing the articles will be performed. We will then perform a second search using all identified keywords and index terms across these databases: AJOL, JSTOR, HINARI, Scopus, Science Direct, PsycInfo, WHO website, UNICEF website, UNFPA website, UNESCO website, Guttmacher Institute website and Google Scholar. In the third stage, the reference list of identified reports and papers with full text available will be searched for additional studies. Also, a manual search using google will be performed. Detailed search terms are already prepared and presented in online supplementary file 1.

Inclusion criteria

To ensure comprehensiveness and reduce the inclusion of irrelevant information, only studies written in English and French languages and published between 2010 and June 2019 that focused on ASRH (aged 10–19) in SSA will be included. The decision to limit the publication period to January 2010–June 2019 reflects the particular need for current, up-to-date evidence to help inform and promote decisions on the domestication and implementation of continental commitments on ASRH in SSA. The topic of focus will include ASRH, sexual behaviour, sexual initiation, sexual coercion and sexual violence, violence, teenage pregnancy, harmful cultural practices, HIV, STIs, abortion, access and use of contraceptives, comprehensive sexuality education, human sexuality education, life skills, sex education, culture, religion, female genital mutilation, early marriage and forced marriage, youth-friendly services, economic empowerment of girls,

school-based interventions, peer focused interventions, media campaign and large scale communication, mentoring and positive role modelling, creating safe spaces for adolescent girls, partner-oriented interventions and promoting laws and policies and their implementation. All study types and designs will be considered, including research articles (qualitative, quantitative and mixed-methods studies), systematic reviews, meta-analyses, commentaries and technical reports.

Exclusion criteria

Studies on ASRH focusing on regions other than SSA will be excluded. Also, studies published before January 2010 will be excluded. Conference abstracts and posters, book reviews, blog posts and other kinds of grey literature will also be excluded.

Study selection

Two reviewers will conduct the screening of titles and abstracts, and study selection will be based on an agreement between these reviewers. Primarily, the inclusion criteria prespecified in this protocol will inform study selection. In cases of disagreement between the two reviewers, the larger research team will discuss the contentious issues and resolve the disagreement. In the second stage, the reviewers will assess the full texts of all publications, and finally, reference lists of review studies will be searched for identification of any additional studies. The PRISMA flow chart diagram for reporting items for systematic reviews will be used to demonstrate the process of articles screening, inclusion and exclusion.

Extraction of data

A template for the data extraction process has been created (see [table 1](#)). The extraction will focus on the study details, methods, objectives and the key findings related to the scoping review questions. Relevant data, including the study title, year of publication, study population, type of publication, study methods, geographical focus, thematic focus and key findings will be extracted from each publication included on an excel sheet.

Presentation of results

The data extracted will be analysed using descriptive statistics and thematic analysis. Results will be presented with the aid of tables and charts and organised into themes for discussion of the main findings. The article details will be presented with a table showing the year of publication, country of origin, research methods, lead author, funders, study setting, sample size and scope of the study. A narrative summary will be presented under the following themes: study details, key findings and gaps in the research. The team will work together to identify key knowledge gaps emerging from the review on the main questions.

Patients and public involvement

Patients and the public were not involved in the preparation of the study protocol.

Table 1 Data extraction framework

Main category	Subcategory	Description
Author		
Lead author		Indicate where the lead author is based (we will determine if a lead author is African or non-African by the institutional affiliation of the author)
Funder(s)		Indicate the funder (eg, Africa, European, USA, other North America)
Title		
Journal		
Year of publication		
Aim/objectives		Describe the stated aim and objectives of study
Year of research		
The country where the study was conducted		Indicate country(ies) where study was conducted
Study setting		Specify the location of study sites (eg, district(s))
Subregion where the study was conducted		Indicate the subregion study was conducted
Type of study		Indicate the study type (eg, primary research, secondary analysis, review, commentary, document analysis or discourse analysis)
Type of source		Indicate the type of publication (eg, journal article, book chapter, report, thesis)
Is the study an intervention study or focusing on describing the problem		Indicate whether the study described a problem or examine the effect of an intervention
Thematic focus	If describing a problem	Identify the problem in focus (eg, child marriage, unplanned pregnancy, risky sexual behaviours, abortion)
	If an intervention study	Describe the nature of the intervention
Methodology		
	Study design	Specify the study design adopted (eg, cross-sectional design, case study, prestudy, poststudy design, longitudinal study, mixed methods, randomised control trial, qualitative study, review study)
	Population	Describe the characteristics of the target population
	Sampling strategy	Describe how sampling was done if applicable
	Data collection	Specify the methods of data collection
	Outcome measures	Indicate the outcome measures for quantitative studies
	Data analysis	Indicate method of data analysis
Results		
	Reported outcomes	Indicate the prevalence reported Highlight the determinants reported
	Key findings	Summarise the key findings
Conclusion		
Limitations		Describe the study limitations

Ethics and dissemination

Ethical approval is not required for scoping review given that it is a synthesis of publicly available publications. Dissemination will be through publication in a peer-review journals and presentation at relevant conferences, convening of policymakers and civil society organisations

working on ASRH in SSA. The findings of the review will offer a useful basis for the planning of further research, but also for the synthesis and marshalling of existing evidence in debates and advocacy to advance evidence-informed, national-level policy and practice that protects

the SRH and rights of the large population of young people in SSA.

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Contributors AIA, BAU, MM, EKI, RO, KJ and IA made substantial contributions to the conceptualisation, design and development of this protocol. AIA provided the initial draft of the protocol. All authors provided a critical review of the initial draft and read and approved the final draft.

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Competing interests None declared.

Patient and public involvement Patients and/or the public were not involved in the design, or conduct, or reporting, or dissemination plans of this research.

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