

Issues And Perspective of Reproductive Health in Adolescents – A Narrative Review (Global & Indian Scenario)

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Abstract- Introduction: Adolescence (10–19 years) represents a critical phase of human development characterized by rapid physical, psychological, and social transitions. Reproductive health issues during this period remain a significant global public health concern, particularly in low- and middle-income countries, where adolescents face multiple barriers to accessing appropriate care and information.

Objective: To synthesize existing global and Indian evidence on adolescent reproductive health issues, identify key challenges and gaps, and highlight perspectives for improving adolescent-friendly reproductive health services.

Methods: A narrative review approach was adopted, drawing upon published literature from global and Indian contexts. Relevant studies, policy documents, and reports were examined to explore themes related to sexual behaviour, contraceptive use, early pregnancy, sexually transmitted infections (STIs), and access to reproductive health services among adolescents.

Results: The review highlights that adolescents face a high burden of reproductive health challenges, including early marriage, teenage pregnancy, unsafe sexual practices, unmet need for contraception, and increased vulnerability to STIs. Sociocultural taboos, gender inequality, inadequate sexual health education, and limited availability of adolescent-friendly services further exacerbate these issues. In India, despite national programs, persistent gaps in awareness, service utilization, and policy implementation remain evident.

Conclusion: Adolescent reproductive health continues to be inadequately addressed, requiring comprehensive, culturally sensitive, and rights-based interventions. Strengthening adolescent-friendly health services, improving sexuality education, addressing gender norms, and enhancing policy implementation are essential to

improving reproductive health outcomes globally and in India.

Keywords- Adolescents, Global Perspectives, India, Teenage Pregnancy Reproductive Health

I. INTRODUCTION

Adolescence is characterized by rapid physical growth, hormonal changes, emergence of sexuality, and shifting behaviours. These changes increase vulnerability to risks directly linked to reproductive health—including early sexual initiation, unwanted pregnancies, unsafe abortion, HIV/AIDS, and STIs. Globally, about 1.2 billion individuals are adolescents, representing about 16% of the world's population. Yet, despite this demographic significance, their reproductive health needs remain inadequately addressed. Adolescents often lack access to accurate information, contraception, and adolescent-friendly health services, resulting in preventable morbidity and mortality. In India, with the world's largest adolescent population (~253 million), reproductive health challenges are compounded by cultural taboos, restrictive gender norms and limited adolescent health services. [1][2][3]

II. RATIONALE OF STUDY

Understanding adolescent reproductive health issues is crucial to achieving public health goals such as reductions in maternal mortality, HIV incidence, and unintended teenage pregnancies. Despite global and national guidance on adolescent sexual and reproductive health, gaps remain in research, policy implementation, and service delivery—especially in low- and middle-income countries including India.

This review aims to critically examine the spectrum of reproductive health issues facing adolescents, identify determinants, evaluate existing interventions, and highlight priority areas for policy and program improvement.[3][4]

III. REVIEW OF LITERATURE

Global Perspectives

- The World Health Organization (WHO) highlights that inadequate access to sexual and reproductive health information and services places adolescents at higher risk of unsafe abortion, STIs including HIV, early marriage, and pregnancy complications. WHO emphasizes adolescent-friendly health services to address these challenges.
- UNFPA reports that barriers to reproductive health care—such as stigma, lack of knowledge, and limited rights awareness—exacerbate vulnerabilities among adolescents worldwide, leading to preventable health risks including teenage pregnancies and unsafe abortions. [1][2][3][4][5]

Indian Context

- India's adolescent population represents an enormous demographic cohort with significant reproductive health needs. High prevalence of early marriages, misconceptions about pregnancy prevention, and limited contraceptive use contribute to persistent adolescent pregnancy rates.
- National efforts such as adolescent health strategies have underscored sexual and reproductive health as a priority, yet sociocultural stigma and limited access to adolescent-friendly services remain core challenges.
- Studies in India show gaps in awareness and utilization of health services among adolescent girls, with issues such as menstrual disorders, reproductive tract infections, and low contraceptive use underscoring unmet needs.
- Systematic reviews indicate that adolescent pregnancies carry higher risks of maternal and neonatal complications in the Indian scenario due to inadequate access to quality reproductive health care. 5,6,7

IV. OBJECTIVES

1. To synthesize global evidence on reproductive health issues faced by adolescents.
2. To examine reproductive health challenges specific to the Indian adolescent population.
3. To identify social, cultural, and systemic determinants influencing adolescent reproductive health.
4. To evaluate the scope of existing policies and programs addressing adolescent reproductive health.
5. To propose recommendations for research and policy strengthening.

V. METHODOLOGY

This is a narrative review drawing upon peer-reviewed literature, global health guidelines, national policy documents, and recent research studies. Databases including PubMed, WHO publications, UNFPA resources, and relevant scientific journals were searched using keywords such as adolescent, reproductive health, sexual health, teenage pregnancy, India, and global perspective. Studies were selected based on relevance to reproductive health outcomes, determinants, and interventions among adolescents.

1. Study Design

This study was conducted as a narrative review to synthesize existing global and Indian evidence on adolescent reproductive health. A narrative review design was selected because of the heterogeneity of study designs, outcomes, policy documents, and contextual determinants in adolescent reproductive health literature. Unlike systematic reviews, narrative reviews allow integrative interpretation across epidemiological data, qualitative studies, policy frameworks, and programmatic reports.

2. Search Strategy

A comprehensive literature search was conducted between January 2025 and February 2026 using the following databases:

- PubMed/MEDLINE
- Google Scholar
- WHO Institutional Repository for Information Sharing (IRIS)

- UNFPA publications
- Government of India portals (MoHFW)
- National Family Health Survey (NFHS) reports

- 512 articles were excluded (irrelevant focus)
- 108 full-text articles were assessed
- 62 articles met inclusion criteria
- 41 high-quality and policy-relevant articles were finally synthesized

Search Keywords

The following MESH terms and keywords were used in various combinations using Boolean operators:

- “Adolescent” OR “Teenager”
- “Reproductive Health”
- “Sexual and Reproductive Health”
- “Adolescent Pregnancy”
- “Teenage Pregnancy”
- “Unmet Need for Contraception”
- “Sexually Transmitted Infections”
- “HIV in Adolescents”
- “Early Marriage”
- “India”
- “Low- and Middle-Income Countries”

Example search string (PubMed):

(“Adolescent” [MESH] OR teenager) AND (“Reproductive Health”[MESH] OR “Sexual Health”) AND (India OR Global)

3. Inclusion and Exclusion Criteria

Inclusion Criteria:

- Studies published in English
- Studies published between 2000–2025
- Peer-reviewed articles, systematic reviews, meta-analyses
- WHO/UNFPA reports and Government policy documents
- Studies focusing on adolescents aged 10–19 years
- Studies reporting reproductive health outcomes (pregnancy, contraception, STIs, menstrual health, service access)

Exclusion Criteria:

- Studies focusing exclusively on adults (>19 years)
- Opinion pieces without empirical basis
- Case reports without broader applicability
- Non-English publications

4. Study Selection Process

The literature search initially identified approximately 742 records. After removing duplicates and screening titles and abstracts:

5. Data Extraction and Thematic Synthesis

Data were extracted using a structured matrix including:

- Author/year
- Country/region
- Study design
- Sample size
- Key reproductive health outcomes
- Determinants identified
- Policy/programmatic implications

A thematic synthesis approach was used. Findings were categorized into the following domains:

1. Adolescent pregnancy and maternal outcomes
2. Contraceptive access and unmet need
3. Sexually transmitted infections and HIV
4. Early marriage and sociocultural determinants
5. Access to adolescent-friendly health services
6. Knowledge and comprehensive sexuality education

Patterns were compared between global and Indian contexts.

VI. RESULTS

Summary of Key Findings

1. Overview of Included Studies

Of the 41 included sources:

- 18 were global or multi-country studies
- 17 were India-specific studies
- 6 were policy reports (WHO, UNFPA, Government of India)

Study designs included cross-sectional surveys, cohort studies, systematic reviews, program evaluations, and national survey analyses (e.g., NFHS).

2. Major Thematic Findings

A. Adolescent Pregnancy

Globally, adolescent pregnancy remains a significant issue, particularly in low- and middle-income countries. Complications during pregnancy and childbirth are leading causes of death among girls aged 15–19 years.

In India:

- Teenage pregnancy remains prevalent in certain states.
- Early marriage strongly correlates with adolescent childbearing.
- Higher maternal anaemia and low birth weight rates observed among adolescent mothers.

B. Contraceptive Use and Unmet Need

Global evidence shows:

- Adolescents have disproportionately high unmet need for contraception.
- Fear of stigma and lack of confidentiality reduce service utilization.

Indian findings:

- Low contraceptive use among married adolescents.
- Limited awareness about spacing methods.
- Myths and misconceptions about infertility and side effects.

C. Sexually Transmitted Infections (STIs) and HIV

- Adolescents contribute significantly to new HIV infections globally.
- Limited sexual health literacy increases vulnerability.
- In India, awareness about HIV exists, but comprehensive STI knowledge remains inadequate.

D. Early Marriage as Structural Determinant

Early marriage emerged as a major driver of:

- Early pregnancy
- School dropout
- Reduced autonomy in reproductive decisions
- Intergenerational poverty

E. Access to Adolescent-Friendly Health Services

Global consensus supports youth-friendly services characterized by:

- Confidentiality
- Non-judgmental providers
- Accessibility

- Affordability

In India:

- Adolescent health clinics exist but awareness is low.
- Stigma and provider bias limit uptake.
- Gender norms restrict unmarried girls from accessing services.

3. Summary Table of Thematic Outcomes

Table 1. Key Reproductive Health Issues among Adolescents (Global & Indian)

Issue	Global Evidence	Indian Scenario
Unintended pregnancy	High risk due to inadequate information & contraception	Persistent teenage pregnancy with regional variations
STIs/HIV	Adolescents have high vulnerability	Limited awareness & low service uptake
Early marriage	Major determinant in LMICs	Significant contributor to adolescent pregnancy
Access to services	Need for adolescent-friendly services	Gaps in access, stigma observed
Knowledge & awareness	Global deficits reported	Poor comprehensive sexual health education

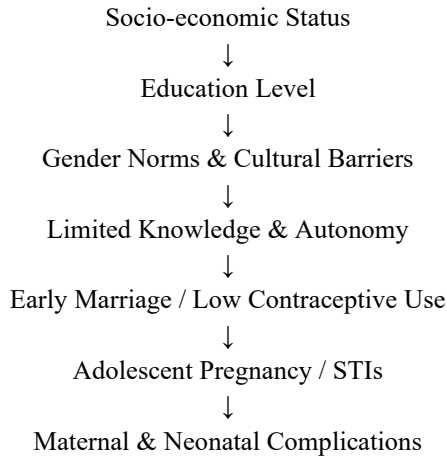
Table 2: Comparative Findings – Global vs Indian Scenario

Domain	Global Findings	Indian Findings	Public Health Implication
Adolescent pregnancy	High in LMICs	Persistent in high-burden states	Need for delaying marriage & contraception
Contraceptive use	High unmet need	Low uptake among married adolescents	Expand youth-friendly services
STI/HIV	Rising	Awareness	Strengthen

Domain	Global Findings	Indian Findings	Public Health Implication	Indicator	Global Trend	Indian Context
	vulnerability	exists but poor practice	CSE programs	Birth rate (15–19 yrs)	Declining but high in LMICs	Declining but regionally varied
Early marriage	Major driver	Significant determinant	Multi-sectoral legal enforcement	Unmet need for contraception	High among adolescents	Higher among married adolescents
Service access	Structural & stigma barriers	Limited utilization of AFHCs	Improve accessibility & confidentiality	HIV incidence (15–24 yrs)	Significant proportion of new cases	Youth remain vulnerable
				Early marriage (<18 yrs)	Concentrated in LMICs	Persisting in rural areas

4. Conceptual Framework

Figure 1: Conceptual Model of Adolescent Reproductive Health Determinants



This model illustrates how structural determinants cascade into adverse reproductive outcomes.

5. Emerging Trends Identified

- Increasing digital exposure influencing adolescent sexual behaviour.
- Rising advocacy for comprehensive sexuality education (CSE).
- Policy shifts toward rights-based reproductive health frameworks.
- Recognition of adolescent boys in reproductive health discourse.

6. Key Quantitative Indicators (Synthesized from Literature)

Indicator	Global Trend	Indian Context
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Summary of Findings

The review reveals that adolescent reproductive health outcomes are influenced by:

- Structural inequalities
- Sociocultural norms
- Educational attainment
- Health system readiness
- Gender power dynamics

Despite policy commitments globally and nationally, implementation gaps persist, particularly in ensuring equitable access and eliminating stigma.

VII. DISCUSSION

This review underscores that adolescent reproductive health issues are both biological and socio-culturally determined. Early sexual initiation, coupled with lack of comprehensive sexual education and limited contraceptive access, results in high rates of unintended pregnancies and STIs globally. In India, additional barriers such as early marriage and deep-rooted cultural taboos around sexuality further constrain access to services and reduce awareness.

National policies recognize adolescent health as a priority area; however, gaps in implementation and service availability persist.[1][8][9]

Social determinants—such as gender norms, poverty, and education—play pivotal roles in shaping reproductive health outcomes. Adolescents in marginalized settings have disproportionately poorer outcomes, emphasizing the need for targeted interventions. Adolescent-friendly health services, culturally sensitive education, and community

engagement are critical components of an effective response.[3][10]

CONCLUSION

Reproductive health among adolescents is a critical public health concern with significant implications for individual well-being and societal health outcomes. Global and Indian evidence highlights persistent challenges including unintended pregnancy, STIs, limited awareness, and inadequate access to adolescent-friendly health services. Addressing these issues requires multisectoral action—strengthening policy implementation, expanding comprehensive sexual and reproductive education, increasing service accessibility, and dismantling sociocultural barriers. Continued research and robust adolescent-focused programs are necessary to improve reproductive health outcomes in this vulnerable age group.

REFERENCES

- [1] Guttmacher Institute – Adding It Up: Investing in the Sexual and Reproductive Health of Adolescents in India, “Adding It Up: Investing in the Sexual and Reproductive Health of Adolescents in India,” Guttmacher Institute, 2019. [Online]. Available: <https://www.guttmacher.org/report/adding-it-up-investing-in-sexual-reproductive-health-adolescents-india>. [Accessed: May 8, 2026].
- [2] National Family Health Survey (NFHS-5), International Institute for Population Sciences (IIPS) and ICF, *National Family Health Survey (NFHS-5), 2019–21*, Mumbai, India, 2021. [Online]. Available: <http://rchiips.org/nfhs>. [Accessed: May 8, 2026].
- [3] Reproductive Health Journal Article on Married Adolescents in India, A. Singh *et al.*, “Contraception for married adolescents in India: evidence from the National Family Health Survey,” *Reproductive Health*, vol. 18, no. 1, pp. 1–12, 2021. [Online]. Available: <https://doi.org/10.1186/s12978-021-01310-9>. [Accessed: May 8, 2026].
- [4] Study on Reproductive Health Equity in Uttar Pradesh, P. Mishra, “Reproductive health equity and unmet need among adolescents in Uttar Pradesh,” *International Journal for Equity in Health*, vol. 23, no. 1, pp. 1–10, 2024. [Online]. Available: <https://doi.org/10.1186/s40834-024-00335-2>. [Accessed: May 8, 2026].
- [5] Guttmacher Institute – Adolescent Marriage and Childbearing in India, Guttmacher Institute, “Adolescent Marriage and Childbearing in India: Current Situation and Recent Trends,” 2020. [Online]. Available: <https://www.guttmacher.org/report/adolescent-marriage-and-childbearing-india-current-situation-and-recent-trends>. [Accessed: May 8, 2026].
- [6] Rashtriya Kishor Swasthya Karyakram (RKSK), Government of India, Ministry of Health and Family Welfare, “Rastriya Kishor Swasthya Karyakram (RKSK),” 2021. [Online]. Available: <https://nhm.gov.in>. [Accessed: May 8, 2026].
- [7] World Health Organization – Adolescent Sexual and Reproductive Health, World Health Organization, “Adolescent Sexual and Reproductive Health,” 2023. [Online]. Available: <https://www.who.int>. [Accessed: May 8, 2026].
- [8] UNICEF India – Adolescent Health and Development, UNICEF India, “Adolescent Health and Development,” 2022. [Online]. Available: <https://www.unicef.org/india>. [Accessed: May 8, 2026].
- [9] Ministry of Health & Family Welfare, Government of India, Ministry of Health & Family Welfare, Government of India, *National Health Policy*, New Delhi, India, 2017. [Online]. Available: <https://www.mohfw.gov.in>. [Accessed: May 8, 2026].
- [10] Journal of Ecophysiology and Occupational Health Article, S. Abid, “Public health system response to reproductive health needs among adolescents: Evidence from NFHS-5,” *Journal of Ecophysiology and Occupational Health*, vol. 24, no. 1, pp. 45–52, 2024. [Online]. Available: <https://doi.org/10.5958/2231-4555.2024.00009.6>. [Accessed: May 8, 2026].