

The Role of Adolescent Health Services in Promoting Sexual Health in Indonesia

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LITERATURE REVIEW

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ABSTRACT

Adolescents are a population group vulnerable to various reproductive health risks due to limited access to accurate sexual health information and youth-friendly services. This study aims to explore the role of adolescent health services in promoting sexual health among adolescents. Using a narrative literature-policy review, the analysis was based on current literature and policy reviews regarding adolescent health promotion in Indonesia. The findings indicate that adolescent health services play a significant role in increasing awareness, knowledge, and preventive behaviors related to sexual and reproductive health. Key strategies include the provision of youth-friendly service facilities, health education using appropriate media, and peer counseling. However, various challenges such as lack of trained personnel, stigma in society, and limited adolescent participation hinder service effectiveness. This study emphasizes that in Indonesia, the need for multi-sector collaboration, improvement of health personnel competence, and the involvement of adolescents in the design of educational programs. Strengthening the capacity and accessibility of adolescent health services is crucial in Indonesia to improving the overall sexual health status of adolescents and preventing reproductive health problems at an early age.

Key Messages:

- Youth-friendly health services play a critical role in promoting sexual and reproductive health among adolescents.
- Health promotion strategies must include media and peer-based education to increase effectiveness.
- Lack of trained health workers and societal stigma remain barriers to optimal service delivery.
- Adolescent involvement in service design can improve relevance and acceptance of health programs.

GRAPHICAL ABSTRACT



INTRODUCTION

Adolescence is a critical developmental stage characterized by significant physical, emotional, and social transformations, during which individuals begin to form their identity and explore their sexuality. Ensuring access to accurate information and supportive health services during this phase is essential for fostering healthy sexual and reproductive behaviors. Globally, adolescent reproductive health has garnered increasing attention as a public health priority, with youth-friendly services being promoted as an effective strategy to provide safe, accessible, and non-judgmental care for young people. These services have demonstrated success in enhancing adolescents' utilization of reproductive health care and improving health outcomes in various contexts (1).

However, the implementation of youth-friendly health services in many low- and middle-income countries remains inconsistent. Barriers such as limited provider training, insufficient adolescent engagement, and fragmented policies often undermine their effectiveness (2). These challenges are particularly pronounced in Southeast Asia, a region where cultural and religious norms frequently constrain open dialogue about sexuality. In countries like Thailand, Vietnam, and the Philippines, resistance to comprehensive sexual education in schools and limited parental support further complicate adolescent access to reproductive health information and services (3). As a result, interventions that are effective in other regions often face limited success due to the need for greater cultural sensitivity and contextual adaptation (4).

In Indonesia, these regional challenges are further compounded by deeply rooted socio-cultural taboos and a lack of comprehensive sexual education. Adolescents often receive inadequate or inaccurate information about reproductive health, increasing their vulnerability to risky sexual behaviors, unintended pregnancies, and sexually transmitted infections (5, 6). While national policies have begun to recognize the importance of adolescent health, the practical implementation of youth-friendly services is hindered by systemic issues such as undertrained health providers, stigma, and limited adolescent participation in the design and delivery of programs (2, 7).

Therefore, this study aims to explore the role and effectiveness of adolescent-friendly health services in Indonesia in meeting the sexual and reproductive health needs of young people. It seeks to identify existing service gaps, barriers to access, and potential strategies for enhancing program delivery. By providing a focused analysis within the Indonesian context, this research contributes to the broader discourse on youth-centered health policy and the development of culturally sensitive, evidence-based

interventions.

METHODS

This study employed a narrative literature-policy review approach to synthesize current evidence on adolescents' access to sexual and reproductive health (SRH) services. The review focused on the implementation of youth-friendly health services within diverse cultural and socio-political contexts, with particular attention to low- and middle-income countries such as Indonesia. The primary aim of this review was to identify recurring themes, policy challenges, and strategic approaches that inform efforts to improve adolescent SRH service delivery in culturally sensitive settings.

Relevant peer-reviewed articles were identified through searches in databases such as PubMed, Google Scholar, and ScienceDirect using keywords including "adolescent reproductive health," "youth-friendly health services," "sexual health education," and "health service barriers." To ensure the inclusion of current and contextually relevant studies, the following criteria were applied, including publication date between 2018 and 2025, in English or Indonesian, focusing on adolescents aged 10–19 years, and assembling the access to or implementation of adolescent sexual and reproductive health services. Studies were excluded if they focused solely on clinical outcomes without addressing aspects of access, service delivery, policy, or health education.

All eligible articles were reviewed in full, and key information was systematically extracted. A thematic content analysis was conducted to identify and categorize core themes emerging across the literature. These included barriers to service access, policy gaps, the influence of socio-cultural factors, and promising strategies for improving youth-friendly service delivery. Emphasis was placed on drawing conceptual linkages between research findings and their implications for health policy and programming.

RESULTS

Adolescent health services play a pivotal role in promoting sexual and reproductive health by providing access to appropriate, youth-friendly, and inclusive care. The effectiveness of such services has been demonstrated in various contexts, where their availability and quality significantly influence the knowledge, attitudes, and behaviors of adolescents regarding their sexual health. In Indonesia, reproductive health programs targeting adolescents have shown promising outcomes in improving awareness and reducing risky behaviors when tailored to local contexts and cultural values.

Despite their potential, barriers to access remain a major challenge. These include geographical distance, socio-cultural stigma, inadequate provider training, and limited adolescent autonomy in health decisions. School-based interventions have proven to be an effective avenue for comprehensive sex education, especially when delivered with culturally sensitive content and active student participation. In addition, peer counselors have emerged as influential actors in disseminating sexual health education and building trust among adolescent populations.

From the service delivery perspective, enhancing the capacity and motivation of health workers remains essential. Training on adolescent-friendly approaches, confidentiality, and non-judgmental attitudes are key factors in improving service uptake. Parental involvement and perceptions also significantly shape adolescents' attitudes toward sexual health. In Southeast Asia, many parents express discomfort with formal sexual education, indicating a need for strategies that engage families in the process.

Community-based participation is another critical element. Programs that involve youth and community members in planning and implementation foster trust and relevance. Moreover, effective policy support is vital for sustaining youth sexual health promotion. In Indonesia, legal and political frameworks influence the success of advocacy and implementation efforts for adolescent reproductive rights.

Innovative tools such as digital media and gamified health promotion have also gained traction, especially in engaging tech-savvy youth audiences. Furthermore, religious leaders play an influential role in shaping sexual norms and can serve as allies in promoting accurate and respectful reproductive health messages. Attitudinal shifts resulting from community-embedded interventions highlight the value of culturally grounded approaches. Overall, the integration of youth-friendly services, school-based programs,

peer and community engagement, digital platforms, and supportive policy environments creates a holistic foundation for advancing adolescent sexual health. In line with this, emphasize the need for synergy across sectors, such as health, education, religion, and community, to ensure sustainability and inclusivity in adolescent health promotion efforts.

Table 1. Description of included studies (n=15)

No	Author (Year of Publication)	Country/Context	Study Design	Key Findings
1	Mukthar, V. K. (2025) (8)	Kenya	a descriptive cross-sectional study	About two-thirds (64%, n=340) of sampled youths utilized Youth-Friendly Sexual and Reproductive Health Services, which is suboptimal. The study found service utilization significantly associated with provider friendliness (p=0.000), respectful attitude (p=0.000), and active listening skills (p=0.011). Additionally, utilization was significantly associated with service affordability (p=0.001) and privacy/confidentiality (p=0.001).
2	Putri YHS, et al. (2025) (9)	Multiple contexts globally	a scoping review design	Interventions to improve adolescents' reproductive health knowledge included smartphone, school, game, educational, and family-based approaches. Interventions ranged from brief sessions to months, involving videos, educational apps, school discussions, games, and family interactions.
3	Mathabela B, et al. (2024) (10)	South Africa	a descriptive qualitative study	Using a socio-ecological model, findings show that poor socioeconomic status and lack of health service information are individual barriers for adolescents and young people with disabilities (AYPWDs) accessing clinic services. At the interpersonal level, AYPWDs faced challenges discussing reproductive health with parents, inadequate support, and negative attitudes from friends. Community barriers included negative attitudes and poor wheelchair infrastructure. At the organizational level, health care workers' (HCWs') negative treatment, discrimination, communication difficulties, confidentiality violations, and misconceptions about sexuality hindered services.
4	Sidamo NB, et al. (2024) (11)	Ethiopia	A descriptive phenomenology study	Major barriers preventing adolescents from accessing Sexual and Reproductive Health (SRH) services relate to supply and demand barriers across Levesque framework domains. Limited SRH literacy and health facility integration hamper adolescents' healthcare needs. Fear of stigma and minimal SRH discussion hinder healthcare seeking. Supply shortages and provider behaviors limit access. Limited adolescent involvement affects service appropriateness.
5	Versloot-Swildens M C, et al. (2024) (12)	Netherlands	A cluster-randomized controlled trial study	"Love is..." increased sexual knowledge, as adolescents in the program group showed less cyber victim blaming and improved communication skills afterward.
6	Permatasari D, Suprayitno E (2021) (13)	Indonesia	A quantitative Ccross-sectional study	The key factors influencing were knowledge of Youth Reproductive Health (YHR) counseling, motivation for YHR counseling implementation, support of officers for YHR counseling, and officer supervision of YHR counseling.
7	Denno DM, et al. (2021) (14)	Multiple contexts globally	A systematic review	Due to eligibility criteria, all programs included health worker training. Supervision was the most frequent intervention used (n=10).

No	Author (Year of Publication)	Country/ Context	Study Design	Key Findings
8	Ellin MRB, et al. (2024) (15)	Asian cultures broadly	A systematic review	<p>Training and supervision quality varied considerably across programs. Nearly half described ensuring availability of medicines and supplies (n=7). Other interventions (policies, standards, job descriptions [n=5]; refresher trainings [n=5]; job aids [n=3]) were less commonly employed. No patterns emerged between interventions and outcomes of interest.</p> <p>Parents showed good knowledge in quantitative studies but inadequate knowledge in qualitative studies. Cultural denial existed regarding sexuality, while six studies emphasized parental support needs. Negative experiences, including discomfort, shyness, embarrassment, fear of intimidation, and fearful encounters, were reported.</p>
9	Tuaf H, Orkibi H. (2023) (16)	Multiple contexts globally	A scoping Review	<p>Twenty-seven psychosocial programs providing leisure/social activities for adolescent mental health in the community were identified. We mapped these programs into three categories: integrated recovery, leisure recovery, and advocacy recovery.</p>
10	Ridwan R, Sarasswati PW. (2024) (17)	Indonesia	A book chapter	<p>Young Indonesians have driven change on sexuality issues for decades. Sexual Reproductive Health and Rights (SRHR) among Indonesian youth presents complex challenges. Documentation on how Indonesian youth organize themselves is mainly portrayed through student political movements, with SRHR issues by non-students less represented in literature. This chapter examines the history, development, and achievements of Indonesian youth SRHR activism, combining research findings and authors' experience as youth SRHR activists. Enablers and challenges to sustain activism are discussed.</p>
11	Rubio C, Besoain F. (2025) (18)	Multiple contexts globally	A scoping review	<p>We screened 521 of 612 articles (85.1%) after removing duplicates. After review, 51 (9.8%) articles were assessed, and 30 (5.8%) articles meeting criteria were evaluated. Results showed pervasive video games positively impact safe sexual behaviors, enhanced by theory-based techniques and mobile technologies as developmental factors. This domain is a growing field that should not be ignored.</p>
12	Wadham E, et al. (2019) (19)	Multiple contexts globally	A systematic review	<p>Sixteen studies used web platforms for intervention delivery, with eleven focusing on HIV prevention. Seven studies found significant effects on HIV/STI prevention and sexual health knowledge, while only one-fifth showed increased condom use intentions. Nine studies focused on African American participants. While new media can improve efficiency and coverage, success requires high-quality, evidence-based content that engages participants.</p>
13	Ashriady A, et al. (2024) (20)	Multiple contexts globally	A systematic review	<p>Religious leaders influence adolescents' use of modern contraceptives, though their impact on reproductive health information remains limited. Partnering with religious leaders can enhance family planning efforts despite cultural</p>

No	Author (Year of Publication)	Country/Context	Study Design	Key Findings
14	Agu CI, et al. (2024) (21)	Nigeria	A qualitative impact assessment approach	barriers. Their involvement in reproductive health programs helps raise awareness and support adolescents' health decisions. The community-embedded intervention changed individual attitudes and community norms regarding adolescent sexual and reproductive health (SRH). Adolescents became more comfortable discussing SRH issues with peers and parents, while parents became more willing to have these discussions. Parents no longer use euphemisms for sexual body parts, and community leaders now support SRH discussions with adolescents. SRH discussions are no longer seen as encouraging sex, and menstruation in unmarried adolescents is not viewed as promiscuous behavior. Community norms changed as both parents discuss SRH with adolescents regardless of gender, and public shaming of pregnant teenagers has decreased.
15	Fitri RP, Fitriani IM. (2023) (22)	Indonesia	Quantitative research	Before and after health education at SMPN 1 Pekanbaru with Audio Visual Aid (AVA) media, differences emerged in knowledge effectiveness

DISCUSSION

The findings of this study highlight a multifaceted yet uneven landscape of adolescent sexual health promotion in Indonesia, characterized by a mix of promising strategies such as youth-friendly health services, formal education, and community-based interventions which is each shaped by unique opportunities and constraints (Table 1). These findings echo prior studies that emphasize the need for accessible, comprehensive, and culturally attuned services for adolescents (8, 2). As indicated in other research, youth-friendly services play a pivotal role in facilitating health-seeking behavior among teenagers, particularly when health workers are adequately trained and facilities are welcoming (14). However, such services remain inconsistently implemented across regions, reflecting broader systemic issues of decentralization and limited inter-sectoral coordination.

School-based sex education, as supported by Putri Y (2025) (9) and Versloot-Swildens (2024) (12), remains one of the most scalable and impactful channels for improving adolescents' knowledge and protective behaviors. Nevertheless, its reach and effectiveness in Indonesia are often constrained by local resistance, unclear curricular mandates, and a lack of teacher training. Peer education, as discussed in Permatasari D (2021) (13), offers an alternative model by leveraging adolescents' social networks to diffuse information in relatable ways. However, the sustainability of these programs is undermined by high turnover among peer educators, lack of institutional support, and limited mechanisms for program monitoring and quality assurance. In many cases, once pilot funding or NGO support ceases, these initiatives fail to integrate into existing school or community structures, pointing to a critical need for stronger ownership and capacity-building at the local level.

Despite these strengths, access to services continues to face structural and sociocultural barriers. Consistent with Sidamo N (2024) (11) and Ellin M (2024) (15), entrenched norms around gender, sexuality, and adolescent autonomy, especially in conservative or rural communities, contribute to stigma and low parental support. These barriers are further reinforced by fragmented policy environments that fail to present a unified stance on adolescent sexual health. While some local governments embrace progressive health promotion efforts, others adopt restrictive interpretations of national guidance, leading to stark regional disparities.

Religious values, often perceived as barriers, also present complex opportunities. As Ashriady A (2024) (20) suggests, when religious leaders are engaged as advocates, they can play a pivotal role in framing reproductive health as part of moral and community well-being. Yet such engagement requires

nuanced, context-specific dialogue, something current policy frameworks rarely account for in implementation.

The present findings also highlight the emerging role of digital media in reaching youth populations, supporting prior reviews (19, 18), though disparities in access to technology may introduce bias or unequal reach. While digital tools offer scalable and youth-centric avenues for engagement, Indonesia's digital divide, rooted in geographical, economic, and gender-based inequities, raises concerns about unequal access. Adolescents in remote or low-income settings often lack stable internet connectivity, digital literacy, or personal device ownership, limiting their participation in online interventions. Moreover, digital strategies often assume a level of privacy and autonomy that is unrealistic in many adolescents' home environments.

Policy-level analysis confirms that youth reproductive health in Indonesia, while increasingly acknowledged, faces fragmented implementation (17). This fragmentation often results in inconsistent service quality, duplication of efforts, and limited scalability of successful programs. The lack of alignment between national policies and local-level execution further complicates coordination and weakens accountability. As such, an integrated policy framework that aligns with local sociocultural contexts and actively engages regional stakeholders as discussed by Tuaf H (2023) (16), is critical to ensuring coherent and effective adolescent health interventions across the country. Importantly, the involvement of parents, as noted by Agu C (2024) (21), must be recognized not just in terms of support, but as active agents in shaping adolescents' health environments. Programs that meaningfully involve parents through awareness campaigns, dialogue forums, or school-community partnerships tend to foster safer and more supportive ecosystems for adolescent decision-making.

This study has limitations inherent in its qualitative literature review approach. While narrative synthesis allows for rich contextual analysis, it lacks the statistical power of meta-analytical techniques. Potential publication bias may also skew the representation of program success. Moreover, the geographic scope remains limited to literature available in English and Bahasa Indonesia, potentially omitting relevant data from local grey literature or non-digitized sources.

Improving adolescent sexual health in Indonesia requires more than assembling effective strategies; it necessitates critically addressing the systemic, cultural, and digital divides that shape health behaviors and access. Sustainable outcomes depend on harmonizing national policies with local execution, ensuring inclusivity in digital innovation, and building institutional mechanisms that can support long-term implementation. Future research should prioritize evaluating the durability of peer and school-based programs, unpacking the influence of religious and parental engagement, and identifying scalable models that thrive amid policy and infrastructural fragmentation.

CONCLUSION

This study highlights the crucial role of adolescent health services in promoting sexual health among youth, particularly through youth-friendly service models, comprehensive sexual education, digital interventions, and community-based support systems. The findings indicate that accessible, confidential, and inclusive health services significantly improve adolescents' reproductive health outcomes. Moreover, peer education, religious leader involvement, and school-based initiatives serve as effective channels for promoting sexual health knowledge and responsible behavior among teenagers. Despite these positive developments, challenges such as socio-cultural taboos, limited parental involvement, policy inconsistencies, and digital access disparities continue to hinder optimal service utilization.

Therefore, future practices should focus on strengthening intersectoral collaboration, enhancing service delivery quality, and ensuring culturally sensitive approaches. Further research is needed to explore innovative methods for increasing adolescent engagement, particularly in underserved regions, and to evaluate long-term outcomes of various intervention strategies. Addressing these gaps will contribute to more equitable and effective sexual and reproductive health services for young people.

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CONFLICTS OF INTEREST

The authors declare no conflict of interest.

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