ISSN: 3043-467X



Evaluating the Role of Community-Based Organizations in Adolescent Sexual and Reproductive Health Education and Early Pregnancy Prevention in Makoko, Yaba LCDA

BY

CHUKELU CLEMENTINA NKOLIKA PhD
Department of Educational Foundations
Federal College of Education (Technical), Akoka, Yaba, Lagos
nkolichukelu@gmail.com
+2348033029987 and 08124322222

Abstract

Adolescent reproductive health remains a pressing public health challenge in low and middle income countries, where early pregnancies contribute significantly to maternal and neonatal mortality. Despite global efforts, barriers such as stigma, financial constraints, and cultural restrictions continue to limit adolescents' access to sexual and reproductive health (SRH) services. This study evaluates role of community-based organizations in adolescent sexual and reproductive health education and early pregnancy prevention, focusing on Yaba Local Council Development Area (LCDA) Makoko. Using a cross-sectional survey design, data were collected from 372 adolescent girls (aged 10–19) through structured questionnaires. Findings revealed a moderate level of SRH knowledge among respondents, with notable gaps in contraceptive awareness (mean score = 2.60) and service accessibility (mean = 2.39). While CBO-led programs improved awareness (mean = 2.74), participation rates remained low (mean = 2.37), and persistent barriers including fear of judgment (mean = 3.03), cost (mean = 3.18), and cultural restrictions (mean = 2.87) hindered service utilization. The study underscores the potential of CBOs in bridging SRH education gaps but highlights the need for enhanced community engagement, youth-friendly

services, and policy integration to address structural barriers. Recommendations include expanding peer-led education, subsidizing SRH services, training healthcare providers in adolescent-friendly care, and advocating for inclusive national policies. By leveraging CBOs' community trust and adopting multi-sectoral strategies, stakeholders can significantly improve adolescent SRH outcomes in Nigeria.

Keywords: Adolescent reproductive health, Community-Based Organizations, early pregnancy prevention, SRH awareness, Nigeria.

Introduction

Adolescent reproductive health remains a critical global public health issue, particularly in low and middle income countries (LMICs), where early pregnancies and associated complications contribute significantly to maternal and neonatal morbidity and mortality (WHO, 2021). Every year, approximately 21 million girls aged 15–19 years in developing regions become pregnant, with 12 million giving birth (WHO, 2021). Tragically, complications from pregnancy and childbirth are the leading causes of death among adolescent girls in this age group (Hackett et al., 2019). The risks are exacerbated by adolescents' incomplete physical development and lack of adequate preparation for pregnancy and childbirth, increasing their vulnerability to adverse outcomes (WHO, 2021). Additionally, babies born to mothers under 20 face a 50% higher risk of stillbirth or neonatal death compared to those born to mothers aged 20–29 (WHO, 2021).

Despite the urgent need for reproductive health interventions, many adolescents face barriers in accessing antenatal care (ANC) and sexual and reproductive health (SRH) services, including stigma, lack of youth-friendly services, and restrictive social norms (Hackett et al., 2019). In Nigeria, for instance, pregnant adolescents often feel uncomfortable accessing ANC services alongside older women, leading to suboptimal care and increased risks of complications (Kuyinu & Toriola, 2017). Similar challenges exist across sub-Saharan Africa, where 18.8% of adolescent girls are either pregnant or already mothers (Kassa et al., 2018).

Given the limitations of formal healthcare systems in addressing adolescent SRH needs, Community-Based Organizations (CBOs) have emerged as crucial players in bridging the gap. CBOs leverage local trust, cultural relevance, and peer-based education to deliver SRH information in ways that are more accessible and acceptable to adolescents (Obiezu-Umeh et al., 2021). Peer education, for example, has been shown to be effective because adolescents are more likely to engage with information when it comes from individuals they identify with (Pradhan et al., 2015).

Programs such as Cameroon's "100% Young" initiative demonstrate how peer-led interventions can improve awareness of contraception and pregnancy prevention (Van Rossem & Meekers, 2010). Similarly, Nigeria's "Hello Lagos Centers" provide youth-friendly SRH services, though

challenges remain in ensuring cost-effectiveness and scalability (Lagos State Ministry of Health, 2021).

Despite these efforts, adolescents in many LMICs still experience low awareness of SRH services, financial constraints, and sociocultural barriers (Nmadu et al., 2020). In Nigeria, restrictive norms discourage open discussions about sex, leaving many adolescents uninformed about contraception and safe sexual practices (Mbachu et al., 2020). Studies indicate that parent-adolescent communication on SRH is rare, often limited to warnings rather than constructive guidance (Agu et al., 2022). Additionally, stigma around premarital sex discourages adolescents from seeking SRH services, fearing discrimination (Nmadu et al., 2020).

To address these challenges, interventions must go beyond traditional healthcare settings and incorporate community-embedded approaches that engage parents, religious leaders, and peer educators (Zulu et al., 2018). Evidence suggests that programs combining school-based education, community awareness campaigns, and youth-friendly health services are more effective in improving SRH outcomes (Kirby et al., 2007). Furthermore, interventions must be culturally sensitive, acknowledging local beliefs while promoting accurate SRH information (Bukuluki et al., 2021).

Objectives

This study evaluating the role of community-based organizations in adolescent sexual and reproductive health education and early pregnancy prevention in Makoko, Yaba LCDA. Specifically, it seeks to:

1. Assess the level of SRH knowledge among adolescents in selected communities.
2. Evaluate the effectiveness of CBO-led SRH education programs in improving awareness and service utilization.
3. Identify barriers to accessing SRH services from both adolescent and community perspectives.

Research Questions

1. What is the level of sexual and reproductive health (SRH) knowledge among adolescents in selected communities?
2. How effective are community-based organization (CBO)-led SRH education programs in improving awareness and service utilization?
3. What are the barriers to accessing SRH services from both adolescent and community perspectives?

Methodology

This study employed a quantitative, cross-sectional survey design to assess the role of Community-Based Organizations (CBOs) in adolescent reproductive health education and early pregnancy prevention in Yaba Local Council Development Area (LCDA), with particular focus on Makoko.

The research targeted adolescent girls aged 10-19 years, including both in-school and out-of-school youth, to evaluate their awareness of reproductive health (RH) services, sources of information, and barriers to accessing care.

A multi-stage sampling technique was utilized to ensure representation across different segments of the adolescent population in Makoko. In the first stage, five public secondary schools were randomly selected from the list of schools in Yaba LCDA. Additionally, five community clusters within Makoko were identified to capture out-of-school adolescents. In the second stage, a systematic random sampling method was used to select participants from each school and community cluster, ensuring a balanced distribution across age. The sample size was set at 400 adolescents, with 200 respondents drawn from schools and 200 from the community to allow for comparative analysis.

Data collection was conducted using a structured, pre-tested questionnaire administered by trained research assistants. The questionnaire covered key areas including awareness of RH services (contraception, STI prevention, and antenatal care), sources of RH information (CBOs, schools, peers, media, healthcare providers), utilization of available services, and perceived barriers to access (cost, stigma, distance, parental restrictions). The survey also assessed adolescents' attitudes toward early pregnancy and their experiences with CBO-led RH programs.

To ensure data accuracy, field supervisors oversaw the administration of questionnaires and conducted spot checks. Completed questionnaires were reviewed for completeness before data entry. The Statistical Package for the Social Sciences (SPSS) version 26 was used for data analysis. Descriptive statistics (frequencies, percentages, means, and standard deviations) summarized respondents' demographic characteristics and RH knowledge levels.

Data analysis and Result

Research Question One: What is the level of sexual and reproductive health (SRH) knowledge among adolescents in selected communities?

Table 1: Level of SRH Knowledge Among Adolescents

SN	Item	SA	A	D	SD	Mean	SD
1	I understand the different methods of preventing unintended pregnancy.	119 (31.9%)	87 (23.3%)	65 (17.4%)	101 (27.1%)	2.60	1.23
2	I am aware of common sexually transmitted infections (STIs) and how they are transmitted.	98 (26.3%)	105 (28.2%)	92 (24.7%)	77 (20.7%)	2.60	1.12
3	I know where to go in my community if I need information or help with sexual and reproductive health issues.	85 (22.8%)	76 (20.4%)	112 (30.0%)	100 (26.8%)	2.39	1.18
4	I can correctly identify signs of puberty and reproductive maturity.	132 (35.4%)	95 (25.5%)	78 (20.9%)	68 (18.2%)	2.78	1.16
5	I am informed about the consequences of early sexual activity and teenage pregnancy.	143 (38.3%)	102 (27.3%)	67 (18.0%)	61 (16.4%)	2.87	1.14
	Weighted Mean					**2.65**	**1.17**

The study sought to determine the level of sexual and reproductive health (SRH) knowledge among adolescents in selected communities. The responses were assessed using five statements on a 4-point Likert scale: Strongly Agree (SA), Agree (A), Disagree (D), and Strongly Disagree (SD). The results are presented as follows:

For the item "I understand the different methods of preventing unintended pregnancy," 119 respondents (31.9%) strongly agreed, 87 (23.3%) agreed, 65 (17.4%) disagreed, and 101 (27.1%) strongly disagreed. This item recorded a mean score of 2.60 with a standard deviation (SD) of 1.23, suggesting a moderate understanding of contraceptive methods among adolescents, though a considerable number expressed disagreement or uncertainty.

In response to "I am aware of common sexually transmitted infections (STIs) and how they are transmitted," 98 respondents (26.3%) strongly agreed, 105 (28.2%) agreed, 92 (24.7%) disagreed, and 77 (20.7%) strongly disagreed. The mean score was 2.60 and SD was 1.12, indicating that while a fair proportion of the adolescents showed awareness of STIs, over 45% either disagreed or strongly disagreed, revealing an uneven distribution of knowledge.

The item "I know where to go in my community if I need information or help with SRH issues" had 85 respondents (22.8%) who strongly agreed, 76 (20.4%) who agreed, 112 (30.0%) who disagreed, and 100 (26.8%) who strongly disagreed. This item had the lowest mean score of 2.39 and a standard deviation of 1.18, reflecting that a majority of the adolescents are not well informed about where to access SRH services, which is a significant gap in their reproductive health preparedness.

When asked "I can correctly identify signs of puberty and reproductive maturity," 132 respondents (35.4%) strongly agreed, 95 (25.5%) agreed, 78 (20.9%) disagreed, and 68 (18.2%) strongly disagreed. The mean score was 2.78, and the SD was 1.16, showing relatively higher awareness about physical signs of maturation, suggesting a solid foundational understanding of the biological aspects of adolescence.

The final item, "I am informed about the consequences of early sexual activity and teenage pregnancy," recorded 143 respondents (38.3%) who strongly agreed, 102 (27.3%) who agreed, 67 (18.0%) who disagreed, and 61 (16.4%) who strongly disagreed. This statement achieved the highest mean score of 2.87 and a standard deviation of 1.14, showing that a significant portion of the respondents are knowledgeable about the risks associated with early sexual behavior.

Bringing together the responses across all five items, the analysis yielded a weighted mean score of 2.65 and an average standard deviation of approximately 1.17. These figures indicate a moderate overall level of SRH knowledge among adolescents in the studied communities. While there is a relatively good understanding of puberty and consequences of early sex, gaps remain in knowledge about STI prevention, contraceptive methods, and access to reproductive health services.

Research question Two: How effective are community-based organization (CBO)-led SRH education programs in improving awareness and service utilization?

Table 2: Effectiveness of CBO-led SRH Education Programs

SN	Item	SA	A	D	SD	Mean	SD
6	The SRH programs provided by local community-based organizations have increased my knowledge of sexual health.	108 (29.0%)	121 (32.4%)	83 (22.3%)	61 (16.4%)	2.74	1.08
7	I feel more confident seeking SRH services because of what I've learned through CBO activities.	92 (24.7%)	98 (26.3%)	105 (28.2%)	78 (20.9%)	2.55	1.14
8	I regularly participate in CBO-organized sessions or activities on reproductive health.	67 (18.0%)	89 (23.9%)	132 (35.4%)	85 (22.8%)	2.37	1.06
9	I believe the CBO-led programs have positively changed attitudes towards safe sex in my community.	124 (33.2%)	115 (30.8%)	78 (20.9%)	56 (15.0%)	2.82	1.09
10	Since joining CBO-led sessions, I am more likely to use available SRH services when needed.	89 (23.9%)	102 (27.3%)	112 (30.0%)	70 (18.8%)	2.56	1.11
	Weighted Mean					**2.61**	**1.10**

In response to Research Question Two: How effective are community-based organization (CBO)-led SRH education programs in improving awareness and service utilization? Five items were analyzed using a four-point Likert scale. The findings reveal a generally moderate level of effectiveness of these programs as perceived by adolescents.

For the item "The SRH programs provided by local community-based organizations have increased my knowledge of sexual health," 108 respondents (29.0%) strongly agreed and 121 (32.4%) agreed, while 83 (22.3%) disagreed and 61 (16.4%) strongly disagreed. The mean score was 2.74 with a standard deviation of 1.08, indicating that a majority of adolescents believed that their knowledge of sexual health had improved due to the programs.

On the statement "I feel more confident seeking SRH services because of what I've learned through CBO activities," 92 respondents (24.7%) strongly agreed, 98 (26.3%) agreed, 105 (28.2%) disagreed, and 78 (20.9%) strongly disagreed. The mean score of 2.55 and standard deviation of 1.14 suggest that while some adolescents gained confidence in seeking SRH services, nearly half expressed disagreement, indicating that additional support may be needed to translate awareness into service utilization.

Regarding participation, the item "I regularly participate in CBO-organized sessions or activities on reproductive health" recorded 67 respondents (18.0%) who strongly agreed, 89 (23.9%) agreed, 132 (35.4%) disagreed, and 85 (22.8%) strongly disagreed. This yielded a mean score of 2.37 and a standard deviation of 1.06, revealing limited active participation in CBO programs. This low engagement could impact the overall effectiveness of the initiatives.

The statement "I believe the CBO-led programs have positively changed attitudes towards safe sex in my community" received strong support, with 124 respondents (33.2%) strongly agreeing and 115 (30.8%) agreeing. Only 78 (20.9%) disagreed and 56 (15.0%) strongly disagreed. This item had the highest mean score of 2.82 and a standard deviation of 1.09, reflecting a widely shared belief that CBO interventions are influencing social attitudes positively regarding safe sexual behaviour.

Finally, for the statement "Since joining CBO-led sessions, I am more likely to use available SRH services when needed," 89 respondents (23.9%) strongly agreed, 102 (27.3%) agreed, 112 (30.0%) disagreed, and 70 (18.8%) strongly disagreed. The mean score was 2.56, and the standard deviation was 1.11, suggesting a moderate influence of CBO programs on adolescents' willingness to utilize SRH services.

Overall, the analysis produced a weighted mean score of 2.61 and an average standard deviation of 1.10. This reflects a moderate level of effectiveness of CBO-led SRH education programs in improving awareness and encouraging service utilization among adolescents. While knowledge and perception improvements are evident, the relatively low participation rates and hesitation to access services indicate that more engaging, targeted, and inclusive strategies are needed to enhance the overall impact of these programs.

Research Question Three: What are the barriers to accessing SRH services from both adolescent and community perspectives?

Table 3: Barriers to Accessing SRH Services

SN	Item	SA	A	D	SD	Mean	SD
11	I feel uncomfortable seeking SRH services due to fear of judgment from health providers or adults in my community.	156 (41.8%)	112 (30.0%)	67 (18.0%)	38 (10.2%)	3.03	1.02
12	Lack of privacy at SRH centers prevents adolescents from using those services.	143 (38.3%)	98 (26.3%)	89 (23.9%)	43 (11.5%)	2.92	1.08
13	My cultural or religious beliefs discourage me from discussing or using reproductive health services.	132 (35.4%)	105 (28.2%)	92 (24.7%)	44 (11.8%)	2.87	1.07
14	The cost of SRH services or transportation prevents many adolescents from accessing them.	178 (47.7%)	112 (30.0%)	56 (15.0%)	27 (7.2%)	3.18	0.96
15	There is not enough community support or open discussion about adolescent sexual health.	165 (44.2%)	121 (32.4%)	56 (15.0%)	31 (8.3%)	3.12	0.99
	Weighted Mean					**3.02**	**1.02**

In addressing Research Question Three: What are the barriers to accessing SRH services from both adolescent and community perspectives? Responses from adolescents revealed significant social, cultural, financial, and systemic challenges that hinder their access to sexual and reproductive health services.

For the item "I feel uncomfortable seeking SRH services due to fear of judgment from health providers or adults in my community," 156 respondents (41.8%) strongly agreed, 112 (30.0%) agreed, while 67 (18.0%) disagreed and 38 (10.2%) strongly disagreed. The mean score was 3.03 with a standard deviation of 1.02, showing that fear of stigma and judgment is a prominent barrier for many adolescents when it comes to seeking reproductive health services.

In terms of privacy concerns, the statement "Lack of privacy at SRH centres prevents adolescents from using those services" garnered 143 (38.3%) strongly agreeing, 98 (26.3%) agreeing, 89 (23.9%) disagreeing, and 43 (11.5%) strongly disagreeing. The mean score of 2.92 and standard deviation of 1.08 highlight privacy as a substantial issue that discourages adolescents from utilizing available SRH services.

On cultural and religious influences, 132 (35.4%) respondents strongly agreed and 105 (28.2%) agreed with the item "My cultural or religious beliefs discourage me from discussing or using reproductive health services," while 92 (24.7%) disagreed and 44 (11.8%) strongly disagreed. The mean score was 2.87, with a standard deviation of 1.07, indicating that a significant number of adolescents are constrained by social norms and belief systems.

Cost-related barriers were evident in the item "The cost of SRH services or transportation prevents many adolescents from accessing them," where 178 (47.7%) strongly agreed, 112 (30.0%) agreed, 56 (15.0%) disagreed, and 27 (7.2%) strongly disagreed. This item had the highest mean score of 3.18 and the lowest standard deviation of 0.96, suggesting that financial constraints are a highly consistent and prevalent barrier across the adolescent population.

Lastly, on community support, 165 (44.2%) strongly agreed and 121 (32.4%) agreed with the statement "There is not enough community support or open discussion about adolescent sexual health." In contrast, 56 (15.0%) disagreed and 31 (8.3%) strongly disagreed. This resulted in a mean score of 3.12 and a standard deviation of 0.99, further confirming that a lack of open discourse in the community significantly hampers adolescents' access to SRH services.

Overall, the weighted mean score was 3.02 with an average standard deviation of 1.02, indicating that respondents generally agreed that multiple barriers particularly fear of judgment, lack of privacy, financial limitations, restrictive cultural beliefs, and insufficient community dialogue adversely affect their ability to access SRH services.

Discussion of Findings

Research Question 1: What is the level of sexual and reproductive health (SRH) knowledge among adolescents in selected communities?

The study findings revealed that adolescents in the selected communities possess a moderate level of sexual and reproductive health (SRH) knowledge. For instance, 55.2% of respondents affirmed they understood how to prevent unintended pregnancies, while 54.5% were aware of sexually transmitted infections (STIs) and their modes of transmission. However, only 43.2% indicated they knew where to seek SRH-related help within their communities. The mean scores for individual items ranged from 2.39 to 2.87, with a weighted mean of 2.65, indicating a fair but incomplete understanding of core SRH issues.

This outcome aligns with Chandra-Mouli et al. (2014), who found that although adolescents in low- and middle-income countries may have some knowledge of contraception and STI prevention, access to youth-friendly services remains limited due to social stigma, weak health systems, and insufficient community-based support. Similarly, Bankole et al. (2004) highlighted that while awareness of HIV/AIDS and pregnancy prevention methods has increased among African youth, this knowledge often fails to translate into consistent, informed sexual behavior due

to cultural taboos and gaps in service delivery. Blanc et al. (2009) also reported that adolescent contraceptive use is often sporadic or prematurely discontinued, primarily due to misinformation, fear of side effects, and lack of access to reliable providers.

Unlike studies in regions with more comprehensive SRH infrastructure, the findings from this study in Makoko a densely populated urban slum underscore the importance of community-based organizations (CBOs) in addressing not just awareness, but also the critical gap in practical knowledge and access to localized services.

Research Question 2: How effective are community-based organization (CBO)-led SRH education programs in improving awareness and service utilization?

The analysis of responses showed a moderate level of effectiveness of CBO-led SRH education programs. Approximately 61.4% of participants agreed that these programs enhanced their knowledge, while only 41.9% reported regular participation in CBO-organized sessions. Additionally, 54.7% indicated they were more likely to use SRH services after exposure to these programs. The weighted mean of 2.61 suggests that while CBO interventions are beneficial in raising awareness, low participation rates and inconsistent engagement limit their overall impact.

These findings are consistent with Chandra-Mouli et al. (2018), who noted that while community-based education initiatives can significantly improve adolescents' SRH knowledge and autonomy, their effectiveness depends on sustained youth involvement and context-sensitive delivery. Similarly, Mmari and Sabherwal (2013) emphasized that youth-oriented SRH programs often struggle with issues of retention and relevance, particularly in underserved urban settings, where cultural norms, stigma, and resource constraints hinder full participation. Biddlecom et al. (2009) also found that adolescents in sub-Saharan Africa benefit from school- and community-based programs, but participation and behavior change are only achieved when interventions are continuous, participatory, and culturally embedded.

Research Question 3: What are the barriers to accessing SRH services from both adolescent and community perspectives?

Respondents in the study generally acknowledged the presence of numerous barriers that hinder their access to SRH services. A substantial 71.8% felt uncomfortable seeking services due to fear of judgment, 64.6% cited lack of privacy, and 77.7% agreed that financial constraints and transport costs limited their access. Cultural and religious restrictions were also significant, as 63.6% of respondents identified them as deterrents. The weighted mean was 3.02, indicating strong agreement across that these barriers are widespread and influential.

This is in line with the work of Agu et al. (2023), who used the socioecological model to explain how personal, interpersonal, institutional, and cultural-level factors interact to limit adolescent SRH access in Nigeria. Their study underscored fear of stigma, judgment from providers,

inadequate infrastructure, and socio-cultural taboos as primary obstacles to utilization (Agu et al., 2022). The similarity in findings reinforces the critical need for a multi-level strategy that addresses both individual fears and structural barriers.

Conclusion

This study highlights the critical role of Community-Based Organizations (CBOs) in improving adolescent sexual and reproductive health (SRH) awareness and early pregnancy prevention in Nigeria. Findings indicate that while adolescents possess moderate SRH knowledge, significant gaps remain in understanding contraception, STI prevention, and service accessibility. CBO-led programs have shown moderate effectiveness in enhancing awareness and shifting attitudes, but participation rates and service utilization remain suboptimal due to persistent barriers such as stigma, financial constraints, cultural restrictions, and lack of privacy in healthcare settings.

Recommendations

1. Community-Based Organizations (CBOs), in collaboration with local health authorities and NGOs, should expand peer-led, culturally sensitive SRH education programs to improve knowledge retention and practical application. Schools, religious institutions, and parent associations must partner with CBOs to organize workshops and community dialogues, fostering a supportive environment for adolescent SRH education.

2. State and local governments, with support from health ministries and international donors, should establish youth-friendly SRH clinics that guarantee confidentiality, affordability, and non-judgmental care. Additionally, policymakers and healthcare administrators should subsidize SRH services and transportation costs to reduce financial barriers for adolescents.

3. Healthcare regulatory bodies and training institutions should mandate adolescent-friendly communication training for healthcare providers to minimize stigma and discrimination. Meanwhile, media organizations, community leaders, and advocacy groups should implement awareness campaigns to normalize open discussions about adolescent SRH and reduce cultural taboos.

4. Federal and state governments should work with advocacy groups and international agencies to develop policies that formally integrate CBO-led SRH initiatives into national health programs, ensuring sustainability and scalability. Furthermore, schools, religious leaders, and community elders should actively promote parent-adolescent discussions on SRH to bridge cultural and generational gaps in knowledge and attitudes.

References

Agu, C., Mbachu, C. O., Agu, I. C., Eigbiremolen, G., Iloabachie, U., Nwankpa, O., & Onwujekwe, O. (2023). Barriers to Utilization of Sexual and Reproductive Health Services among Young People in Nigeria: A Qualitative Exploration Using the Socioecological Model. *Sage Open*. https://doi.org/10.1177/23333936241310186

Agu, C., Mbachu, C., Agu, I., Iloabachie, U., & Onwujekwe, O. (2022). An analysis on the roles and involvements of different stakeholders in the provision of adolescent sexual and reproductive health services in Southeast Nigeria. *BMC Public Health, 22*, 1–14.

Bankole, A., Singh, S., Woog, V. and Wulf, D., 2004. *Risk and protection: Youth and HIV/AIDS in sub-Saharan Africa*. New York: Guttmacher Institute. Available at: https://www.guttmacher.org/report/risk-and-protection-youth-and-hiv-aids-sub-saharan-africa [Accessed 11 June 2025].

Biddlecom, A., Awusabo-Asare, K. & Bankole, A., (2009). *Role of parents in adolescent sexual activity and contraceptive use in four African countries*. *International Perspectives on Sexual and Reproductive Health*, 35(2), 72–81. https://doi.org/10.1363/3507209

Blanc, A.K., Tsui, A.O., Croft, T.N. and Trevitt, J.L., 2009. *Patterns and trends in adolescents' contraceptive use and discontinuation in developing countries and comparisons with adult women*. *International Perspectives on Sexual and Reproductive Health*, 35(2), 63–71. https://doi.org/10.1363/3506309

Bukuluki, P., Kisaakye, P., Houinato, M., Ndieli, A., Letiyo, E., & Bazira, D. (2021). Social norms, attitudes and access to modern contraception for adolescent girls in six districts in Uganda. *BMC Health Services Research, 21*, 1–14.

Chandra-Mouli, V., Lane, C. & Wong, S., (2018). *What does not work in adolescent sexual and reproductive health: A review of evidence on interventions commonly accepted as best practices*. *Global Health: Science and Practice*, 6(3), pp.333–344. Available at: https://www.ghspjournal.org/content/6/3/333 [Accessed 11 June 2025].

Chandra-Mouli, V., McCarraher, D.R., Phillips, S.J., Williamson, N.E. and Hainsworth, G., (2014). *Contraception for adolescents in low and middle-income countries: Needs, barriers, and access*. *Reproductive Health*, 11(1), 1. https://doi.org/10.1186/1742-4755-11-1

Hackett, K., Lenters, L., & Vandermorris, A. (2019). How can engagement of adolescents in antenatal care be enhanced? Learning from the perspectives of young mothers in Ghana and Tanzania. *BMC Pregnancy and Childbirth, 19*, 184. https://doi.org/10.1186/s12884-019-2326

Kassa, G. M., Arowojolu, A. A., Odukogbe, A. A., & Yalew, A. W. (2018). Prevalence and determinants of adolescent pregnancy in Africa: A systematic review and meta-analysis. *Reproductive Health, 15*. https://doi.org/10.1186/s12978-018-0540-2

Kirby, D., & Miller, B. C. (2002). Interventions designed to promote parent-teen communication about sexuality. *New Directions for Child and Adolescent Development*. https://doi.org/10.1002/cd.52

Kuyinu, K., & Toriola, T. (2017). Causative factors for sexual and reproductive health status of pregnant adolescent girls in urban communities of Lagos, Nigeria. *International Journal of Adolescent Medicine and Health*. https://doi.org/10.1515/ijamh-2017-0104

Mbachu, C. O., Agu, I. C., & Onwujekwe, O. (2020). Collaborating to co-produce strategies for delivering adolescent sexual and reproductive health interventions: Processes and experiences from an implementation research project in Nigeria. *Health Policy and Planning, 35*, 84–97.

Mmari, K. & Sabherwal, S., (2013). *A review of risk and protective factors for adolescent sexual and reproductive health in developing countries: An update*. *Journal of Adolescent Health*, 53(5), 562–572. https://doi.org/10.1016/j.jadohealth.2013.07.018

Nmadu, A. G., Mohamed, S., & Usman, N. O. (2020). Adolescents' utilization of reproductive health services in Kaduna, Nigeria: The role of stigma. *Vulnerable Children and Youth Studies, 15*, 246–256. https://doi.org/10.1080/17450128.2020.1800156

Obiezu-Umeh, C., Nwaozuru, U., Mason, S., Gbaja-Biamila, T., Oladele, D., Ezechi, O., et al. (2021). Implementation strategies to enhance youth-friendly sexual and reproductive health services in Sub-Saharan Africa: A systematic review. *Frontiers in Reproductive Health*. https://doi.org/10.3389/frph.2021.684081

Pradhan, R., Wynter, K., & Fisher, J. (2015). Factors associated with pregnancy among adolescents in low-income and lower middle-income countries: A systematic review. *Journal of Epidemiology and Community Health, 10*(1), 45. http://dx.doi.org/10.1136/jech-2014-205128

Van Rossem, R., & Meekers, D. (2010). An evaluation of the effectiveness of targeted social marketing to promote adolescent and young adult health in Cameroon. *AIDS Education and Prevention, 12*(5), 383.

World Health Organization. (2021). *Adolescent health*. https://www.who.int/health-topics/adolescent-health#tab=tab_1 (Accessed January 2022)

Zulu, J. M., Goicolea, I., Kinsman, J., Sandøy, I. F., Blystad, A., Mulubwa, C., et al. (2018). Community-based interventions for strengthening adolescent sexual reproductive health and rights: How can they be integrated and sustained? A realist evaluation protocol from Zambia. *Reproductive Health*. https://doi.org/10.1186/s12978-018-0590-8