

ORIGINAL RESEARCH ARTICLE

Sexual and reproductive health needs and barriers among youth living with HIV/AIDS in Lagos State, Nigeria

DOI: 10.29063/ajrh2025/v29i2.14

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Abstract

This study assesses the sexual and reproductive health (SRH) needs and barriers faced by youth living with HIV/AIDS in Lagos State, Nigeria. Conducted between September and December 2022, the cross-sectional survey involved 117 participants from HIV support groups, with a mean age of 18.6±2.6 years. Most participants were female (57.3%), and 47% had lost one or both parents. While 78.6% were aware of male condoms, only 33.3% reported being sexually active, and just 41% demonstrated good SRH knowledge. Key SRH needs included access to youth-friendly services, comprehensive education, diverse contraceptive options, support for HIV status confidentiality, as well as transportation assistance. Barriers to service utilisation were fear of HIV disclosure (66.7%) and transportation costs (59.8%). Sexual activity was significantly associated with contraceptive use ($p=0.001$) and being in a relationship ($p<0.001$). Regression analysis revealed that contraceptive use increased the odds of sexual activity 3.3 times (aOR 3.32, 95% CI 1.134–9.744, $p=0.029$), while being in a relationship raised it by 5.9 times (aOR 5.96, 95% CI 2.126–16.747, $p=0.001$). The findings underscore the need for targeted policies and programs to enhance access to SRH services and address the unique needs of youth living with HIV/AIDS in Lagos State. (*Afr J Reprod Health* 2025; 29 [2]: 122-132).

Keywords: HIV/AIDS; Sexual and Reproductive Health; Youths; Youth-friendly services; Nigeria

Résumé

Cette étude évalue les besoins en santé sexuelle et reproductive (SSR) et les obstacles rencontrés par les jeunes vivant avec le VIH/SIDA dans l'État de Lagos, Nigéria. Réalisée entre septembre et décembre 2022, l'enquête transversale a impliqué 117 participants issus de groupes de soutien au VIH, avec une moyenne d'âge de 18,6 ± 2,6 ans. La majorité des participants étaient des femmes (57,3 %) et 47 % avaient perdu un ou deux parents. Bien que 78,6 % connaissaient les préservatifs masculins, seulement 33,3 % se déclaraient sexuellement actifs et 41 % démontraient une bonne connaissance de la SSR. Les principaux besoins en SSR incluaient l'accès à des services adaptés aux jeunes, une éducation complète, des options contraceptives diversifiées, le soutien à la confidentialité du statut VIH ainsi qu'une aide au transport. Les principaux obstacles étaient la peur de la divulgation du statut VIH (66,7 %) et les coûts de transport (59,8 %). L'activité sexuelle était significativement associée à l'utilisation de contraceptifs ($p = 0,001$) et à être en couple ($p < 0,001$). Une analyse régressive a révélé que l'utilisation de contraceptifs augmentait les probabilités d'activité sexuelle de 3,3 fois (OR ajusté 3,32, IC à 95 % 1,134–9,744, $p = 0,029$), tandis qu'être en couple les augmentait de 5,9 fois (OR ajusté 5,96, IC à 95 % 2,126–16,747, $p = 0,001$). Ces résultats soulignent la nécessité de politiques et programmes ciblés pour améliorer l'accès aux services de SSR et répondre aux besoins uniques des jeunes vivant avec le VIH/SIDA dans l'État de Lagos. (*Afr J Reprod Health* 2025; 29 [2]: 122-132).

Mots-clés: VIH/SIDA; santé sexuelle et reproductive; jeunes; services adaptés aux jeunes; Nigéria

Introduction

Globally, young people aged 15 to 24 account for 16% of the world's population, with approximately 1.65 million adolescents aged 10 to 19 living with HIV in 2022¹. This age group represents about 4%

of all people with HIV, with 85% residing in sub-Saharan Africa. In the same year, 480,000 young people aged 10 to 24 were newly infected with HIV, with adolescent girls disproportionately affected¹. In sub-Saharan Africa, adolescent girls are nearly six times more likely than boys to acquire HIV,

reflecting deep gender disparities in vulnerability and access to preventive measures¹.

Nigeria faces a significant HIV burden, with 240,000 adolescents living with HIV and one of the highest adolescent mortality rates globally². Lagos State alone is home to approximately 72,000 HIV-positive adolescents, underscoring the need for focused interventions in this region³. Youths living with HIV (YLHIV) face complex social and emotional challenges, including stigma, discrimination, difficulty forming intimate relationships, and fear of involuntary HIV status disclosure^{4,5}. These challenges significantly affect their mental well-being, self-esteem, and ability to seek sexual and reproductive health (SRH) services.

In low- and middle-income countries (LMICs) like Nigeria, these challenges are magnified by the structural barriers to accessing healthcare⁶⁻⁸. YLHIV in such settings not only navigate the daily struggles of living with a chronic illness but also face severe stigma that impacts their access to SRH services⁹. A study among youth living with HIV (YLHIV) in Lagos revealed that nearly half of the respondents had experienced public stigma, while anticipated stigma was reported by 20.2%, internalized stigma by 14.5%, and enacted stigma by 10.7%⁵. These stigma experiences create significant barriers to accessing essential SRH services, further isolating these young individuals and exacerbating their vulnerability to adverse outcomes^{10,11}.

Comprehensive SRH services tailored to YLHIV are essential to mitigate these risks. Such services should include comprehensive sexuality education, access to contraception, STI prevention and treatment, HIV disclosure support, and psychosocial care^{8,12,13}. Studies conducted in Asia, sub-Saharan Africa, and Nigeria have documented the urgent need for YLHIV to access quality SRH information and services to reduce sexually transmitted infections (STIs), unwanted teenage pregnancies, and other negative health outcomes^{6,14-18}. Despite this, most HIV care models in Nigeria cater primarily to pediatric or adult populations, leaving adolescents underserved¹⁹. These gaps are further compounded by inadequate infrastructure, under-resourced health systems, and

insufficiently trained healthcare providers¹⁹. The lack of targeted services increases YLHIV's risk of engaging in unprotected sex, experiencing unintended pregnancies, contracting STI co-infections, and transmitting HIV to others^{15,20-22}. Despite the importance of addressing these issues, research specific to this group in Nigeria remains limited^{21,23,24}. This study seeks to bridge this gap by assessing the SRH needs of YLHIV in Lagos State. It evaluates their awareness and knowledge of SRH and HIV-related topics, explores their sexual behaviours and practices, identifies barriers to SRH access, and examines factors associated with their knowledge and sexual activity. By providing a comprehensive understanding of their SRH needs, this study aims to inform the development of targeted, evidence-based interventions that enhance the health and well-being of YLHIV in Lagos State and similar settings.

Methods

Study Location

This study was conducted in Lagos State, located in Southwest Nigeria, with a projected population of 20,546,999 in 2024²⁵. Lagos state has the largest proportion of young people in the country, with approximately 3,287,969 individuals aged 18 to 35 years, constituting 29.2% of the population⁷. According to the Lagos State AIDS Control Agency (LSACA), about 72,000 adolescents are living with HIV in the state. For administrative purposes, Lagos State is divided into 20 Local Government Areas (LGAs) and 52 Local Council Development Areas (LCDAs).

Lagos State has 19 registered adolescent-friendly health clinics, of which 8 are government-owned and 11 are operated by non-governmental organizations (NGOs). Of these, 17 clinics have functional YLHIV support groups that address the unique health needs of adolescents and young people living with HIV. These support groups provide a safe space for members to share experiences, learn coping strategies, and access HIV-related information and services without fear of stigma.

Study design and selection of participants

This cross-sectional study was conducted between September and December 2022, involving 117 adolescents and young people living with HIV (YLHIV) aged 16 to 24 years. Participants were recruited from five randomly selected YLHIV support groups in Lagos State, with each group representing a different Local Government Area (LGA).

Support groups located in adolescent-friendly health clinics provide safe spaces for YLHIV to share experiences, access HIV-related information, and receive psychosocial and reproductive health support. These groups are integrated with other healthcare services during clinic visits. Total population sampling was employed due to the small membership sizes of the selected groups.

In accordance with ethical guidelines in Nigeria, individuals aged 13 years and above, including emancipated minors, provided independent consent. Parents or guardians were informed about the study through the support groups to ensure transparency.

Study instrument

Data were collected using a structured, pre-tested, self-administered questionnaire adapted from the Human Reproductive Programme (WHO, UNDP, UNFPA, and World Bank) Illustrative Questionnaire for Interview-Surveys with Young People²⁶. The questionnaire was pretested among 13 youths at a youth-friendly center in Lagos to ensure clarity and reliability. It gathered information on socio-demographics, knowledge of SRH, access to SRH services, and barriers encountered. Knowledge of SRH was assessed through eight questions, with each correct response awarded one point, yielding a maximum score of eight. Participants scoring five or below were categorized as having poor knowledge, while those scoring six or above were considered to have good knowledge. Barriers to SRH services were identified by asking participants to select challenges they encountered when accessing services. These included fear of HIV status disclosure, transportation costs, distance to facilities, service costs, stigma, and unavailability of youth-friendly centers. To complement the

questionnaire, a needs assessment was conducted through a desk review of reports on YLHIV and LSACA's annual publications.

Additional insights were obtained through focus group discussions (FGDs) with support group members and key informant interviews (KIIs) with coordinators of support groups and ART facilities.

Data analysis

Data was analysed using IBM Statistical Product and Service Solution (SPSS) version 25. categorical variables were summarized as frequencies and percentages, while continuous variables were presented as means and standard deviations. The chi-square test was used to explore associations between knowledge of SRH, sexual activity, and gender differences in barriers to SRH services. Logistic regression was performed to identify factors associated with sexual activity, including all variables that were significant in the bivariate analysis. For all statistical tests, a 95% confidence interval was applied, and p-values ≤ 0.05 were considered statistically significant.

Ethical consideration

Ethical approval for this study was obtained from the Health Research and Ethics Committee (HREC) of Lagos State University Teaching Hospital (Approval Number: LREC/06/10/2007). Permission was also secured from the study sites and support group coordinators. Written informed consent was obtained from all participants after explaining the study's purpose and potential benefits.

Results

This study assessed the knowledge, perceived needs, access, and barriers to sexual and reproductive health (SRH) services among adolescents and young people living with HIV (YLHIV) in Lagos State, Nigeria. A total of 117 participants were recruited, with a mean age of 18.6 ± 2.6 years. The majority were female (57.3%), and 73.5% had secondary education. Most participants were single and not dating (74.4%), 72.6% were schooling, 23.1% consumed alcohol, and 12.8% used recreational drugs.

Table 1: Socio-demographic and behavioral characteristics of study participants (n = 117)

Variables	n (%)
Gender	
Male	50 (42.7)
Female	67 (57.3)
Age group (years)	
16 - 19	79 (67.5)
20 - 24	38 (32.5)
Mean $\pm$ SD	18.6 $\pm$ 2.6
Educational status	
No education/ Primary	7 (6.0)
Secondary	86 (73.5)
Tertiary	24 (20.5)
Currently a student	
Yes	85 (72.6)
No	32 (27.4)
Relationship status	
Single not dating	87 (74.4)
Currently dating	23 (19.7)
Have a live-in-partner	5 (4.3)
Married	2 (1.7)
Parents living arrangement	
Living together	81 (69.2)
Divorced/Separated	36 (30.8)
Parents alive	
Yes	62 (53.0)
No	55 (47.0)
Alcohol consumption	
Yes	27 (23.1)
No	90 (76.9)
Smokes cigarette	
Yes	9 (7.7)
No	108 (92.3)
Uses recreational substances	
Yes	15 (12.8)
No	102 (87.2)

Nearly half (47%) had lost one or both parents (Table 1). More than half of the participants (54.7%) cited parents as their primary source of SRH information, followed by health workers (35%), schools (29.9%), and social media/internet (29.9%). While 78.6% were aware of male condoms, only 41% demonstrated good SRH knowledge, with higher awareness of emergency contraceptive pills (56.4%) and injectables (51.3%) than combined oral contraceptive pills (30.8%).

Table 2: Knowledge and awareness of sexual and reproductive health among study participants

Characteristics	Frequency (n = 117) n (%)
Sources of information*	
Parent	64 (54.7)
Friends	28 (23.9)
Health workers	41 (35)
Books	25 (21.4)
Television	20 (17.1)
Internet/social media	34 (29.1)
School	35 (29.9)
Contraceptive methods aware of	
Male condom	92 (78.6)
Abstinence	75 (64.1)
Emergency contraceptive pills	66 (56.4)
Injectables	60 (51.3)
Withdrawal	56 (47.9)
Contraceptive pills (COCP)	36 (30.8)
Contraceptive method suitable for young people*	
Condom	65 (55.6)
The Pill	28 (23.9)
Periodic abstinence	23 (19.7)
Withdrawal	22 (18.8)
Injectable	19 (16.2)
Don't know	6 (5.1)
None	3 (2.6)
Contraceptive method used	
Condom	33 (28.2)
The pill	12 (10.3)
Injectable	11 (9.4)
Periodic abstinence	9 (7.7)
Emergency pill	1 (0.9)
IUCD	1 (0.9)
None	47 (40.2)
HIV prevention knowledge*	
Abstinence	87 (74.4)
Using condoms	93 (79.5)
Not sharing sharp objects	94 (80.3)

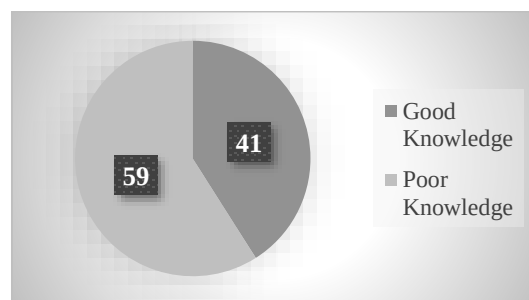
*Multiple answers allowed

Participants identified condoms (79.5%), abstinence (74.4%), and avoiding the sharing of sharp objects (80.3%) as effective preventive measures against HIV re-infection (Table 2).

Table 3: Sexual behaviour and practices among study participants

Variable	Frequency (n = 117) n (%)
Currently in a relationship	
Yes	36 (30.8)
No	78 (69.2)
Ever desired a sexual relationship	
Most of the time	16 (14.7)
Sometimes	29 (26.6)
Rarely	26 (23.9)
Never	38 (34.9)
Ever had sexual intercourse	
Yes	39 (33.3)
No	78 (66.7)
Age at first intercourse (n=39)	
≤10 years	16 (41.0)
11 – 17 years	9 (23.0)
18 years and above	12 (30.8)
No response	2 (5.1)
Circumstances of first sexual exposure	
Consensual	30 (76.9)
Forced/raped.	3 (7.7)
Tricked	3 (7.7)
Persuaded with money	2 (5.1)
Have had sex in the past 12 months (n = 39)	
Yes	21 (53.8)
No	17 (43.6)
Fears about sexual intercourse	
Getting pregnant	34 (66.7)
Re-infection	14 (27.5)
Death	2 (3.9)
Dropping out of school	1 (2.0)
The most commonly used contraceptive method	
Condom	33 (28.2)
The pill	12 (10.3)
Injectable	11 (9.4)
Periodic abstinence	9 (7.7)
Emergency pill	1 (0.9)
IUCD	1 (0.9)

*At First Sexual Intercourse Median Age: 14 years, Interquartile Range (1QR): 5 years

**Figure 2:** knowledge of sexual and reproductive health among participant

A pie chart (Figure 1) illustrates the distribution of SRH knowledge among participants with a notable 41% of participants demonstrating good SRH knowledge.

Approximately 30.8% of participants were in a relationship, and 33.3% were sexually active. The median age of sexual debut was 14 years, with an interquartile range of 5 years, and 41% of sexually active participants reported their first sexual encounter before the age of 10. Key concerns among sexually active participants included fear of pregnancy (66.7%) and re-infection (25.5%) (Table 3).

Over half of the participants (55.6%) lacked access to youth-friendly centres. However, 64.1% had visited a health facility at least once for SRH services, including STI treatment (34.2%), contraception (13.7%), pregnancy-related care (10.3%), and abortion services (9.4%). Public health facilities were the most frequently visited (69.2%), followed by private facilities (25.6%), while 35% of participants had never accessed SRH services (Table 4). The most commonly reported barriers included fear of HIV disclosure (66.7%), transportation costs (59.8%), distance to facilities (55.6%), and service costs (50.4%).

Sexual activity was significantly associated with contraceptive use (45.7%, $p=0.001$), being in a relationship (63.9%, $p<0.001$), and gender, with males being more likely to be sexually active (48.0%, $p=0.004$).

Table 4: Access to and barriers to SRH Services among participants

Variable	Frequency (n = 117) n (%)
Availability of youth-friendly service	52 (44.4)
Available	65 (55.6)
Unavailable	
Ever visited a health facility for SRH services	75 (64.1)
Yes	42 (35.9)
No	
SRH services accessed	
STI Treatment	40 (34.2)
Contraception	16 (13.7)
Pregnancy	12 (10.3)
Abortion services	11 (9.4)
Type of facility visited	
Government	81 (69.2)
Private	30 (25.6)
Others	6 (5.1)
Reason for last visit to a health facility	37 (31.6)
STI treatment	14 (12.0)
Contraception	11 (9.4)
Maternal and Child Health	6 (5.1)
Gynaecological exam	4 (3.4)
Pregnancy test	2 (1.7)
Drugs	2 (1.7)
For test	2 (1.7)
Treat a fever	2 (1.7)
To know about my health	1 (0.9)
Pregnancy termination	
Barriers to seeking reproductive health services	
Fear of disclosing HIV status	78 (66.7)
Transportation costs	70 (59.8)
Distance from home	65 (55.6)
Cost of services	59 (50.4)
Long waiting hours	57 (48.7)
Lack of privacy	56 (47.9)
Attitude of healthcare workers	55 (47.0)
Clinic operating hours	42 (35.9)

Substance use, including alcohol consumption ($p=0.001$), cigarette smoking ($p=0.027$), and recreational drug use ($p<0.001$), was also significantly associated with sexual activity (Table 5). Logistic regression analysis showed that contraceptive users were 3.3 times more likely to engage in sexual activity compared to non-users (adjusted odds ratio [aOR] 3.32, 95% confidence

interval [CI] 1.134–9.744, $p=0.029$). Participants in relationships were 5.9 times more likely to be sexually active than those not in relationships (aOR 5.96, 95% CI 2.126–16.747, $p=0.001$).

Discussion

This study, titled "Sexual and Reproductive Health Needs and Barriers Among Youth Living with HIV/AIDS in Lagos State, Nigeria," provides an in-depth exploration of the knowledge, perceived needs, access, and barriers to sexual and reproductive health (SRH) services among youth living with HIV (YLHIV) in Lagos State.

The findings revealed commendable levels of awareness regarding HIV transmission and prevention among participants, reflecting the effectiveness of current HIV education initiatives. However, significant knowledge gaps were evident in broader SRH topics, particularly regarding contraceptive methods beyond male condoms. This aligns with previous research in sub-Saharan Africa, highlighting limited understanding of contraceptive options among young people, including long-acting reversible contraceptives and emergency contraception.^{7,19,27,28}

Such knowledge deficits can hinder the ability of YLHIV to make informed decisions about their reproductive health, leaving them vulnerable to unintended pregnancies and STIs^{10,11,29}. Comprehensive SRH education programs are therefore critical. These programs should be integrated into existing healthcare services and community outreach initiatives to provide YLHIV with accurate, culturally sensitive, and age-appropriate information on a wide range of contraceptive options and their proper use³⁰.

Participants reported several critical SRH needs, including access to youth-friendly health centres, confidential services, and comprehensive SRH education. Notably, nearly half of the participants had lost one or both parents, which compounds their vulnerability to socioeconomic and emotional challenges.³¹

This emphasizes the need for holistic support systems that extend beyond healthcare to include psychosocial support, peer mentoring, mental health services, and initiatives for economic empowerment^{14,32–35}.

Table 5: Factors associated with sexual activity among participants and corresponding regression analysis

Variable	Sexually active n=39 (%)	Not sexually active n=78 (%)	p-value	Adjusted Odds Ratio (aOR)	95% Confidence Interval	p-value
Use of contraceptive						
Yes	32 (45.7)	38 (54.3)	0.001	3.325	1.134 - 9.744	0.029
No	7 (14.9)	40 (85.1)				
Currently in a relationship						
Yes	23 (63.9)	13 (36.1)	<0.001	5.967	2.126 - 16.747	0.001
No	16 (19.8)	65 (80.2)				
Gender						
Male	24 (48.0)	26 (52.0)	0.004	1.862	0.672 - 5.161	0.232
Female	15 (22.4)	52 (77.6)				
Alcohol consumption						
Yes	16 (59.3)	11 (40.7)	0.001	1.401	0.446 - 4.403	0.564
No	23 (25.6)	67 (74.4)				
Smokes Cigarette						
Yes	6 (66.7)	3 (33.3)	0.027	1.182	0.135 - 10.417	0.880
No	33 (30.6)	75 (69.4)				
Uses recreational substances						
Yes	11 (73.3)	4 (26.7)	<0.001	4.324	0.847 - 22.255	0.078
No	28 (27.5)	74 (72.5)				

These support structures are essential for building resilience and fostering the overall well-being of YLHIV.

Despite these expressed needs, over half of the participants reported limited access to youth-friendly centres. This reflects infrastructural and logistical barriers, such as inadequate health facility distribution, transportation challenges, and poorly trained healthcare personnel, which have been widely documented in Nigeria and other low- and middle-income countries^{6,29,36–39}. Policies must prioritize the establishment of well-equipped youth-friendly facilities, alongside mobile and community-based service delivery models, to bridge these gaps and enhance service accessibility⁴⁰.

The study identified several barriers to accessing SRH services, with the fear of HIV status disclosure emerging as the most significant. This fear

discourages YLHIV from seeking care, particularly in settings where confidentiality is not guaranteed. Other barriers included high transportation costs, service fees, long waiting times, and negative attitudes from healthcare providers. These challenges are consistent with findings from studies in Zimbabwe and other African countries, where stigma and systemic inefficiencies significantly hinder access to SRH services^{6,22}.

Addressing these barriers requires systemic reforms, including healthcare provider training to improve attitudes toward YLHIV, policies to reduce service costs, and strategies to ensure confidentiality. Additionally, community sensitization programs are crucial to reducing stigma and fostering a supportive environment for YLHIV⁴⁰.

A relatively low proportion of participants (33.3%) reported being sexually active, consistent

with findings from similar studies in other regions^{29,41}. However, early sexual debut, with some participants initiating sexual activity before age 10, raises significant concerns. Early sexual activity is associated with higher risks of unintended pregnancies, STIs, and other negative health outcomes^{42,43}.

Behavioural factors such as substance use were strongly linked to risky sexual practices. Participants who consumed alcohol or used recreational drugs were more likely to engage in unprotected sex and other high-risk behaviours. Studies have consistently shown a causal relationship between substance use and risky sexual behaviours, including early sexual initiation and multiple sexual partners^{44–48}. This underscores the importance of integrated interventions that combine SRH education with substance abuse prevention and rehabilitation programs. Such initiatives should aim to address the root causes of risky behaviours while promoting healthy lifestyle choices^{49–52}.

Conclusion

This study sheds light on the complex interplay of knowledge, perceived needs, access, and barriers to SRH services among YLHIV in Lagos State. To address these challenges, a multipronged approach is essential, including comprehensive SRH education, the establishment of accessible youth-friendly services, systemic healthcare reforms, and robust community-based support systems. By learning from successful models implemented in other African countries, stakeholders can develop tailored interventions to enhance SRH outcomes and improve the overall well-being of YLHIV in Lagos State.

Competing interests

The authors identified no conflicting interests in this study.

Authors' contributions

BAA, TF, BIA, AH, and OF conceptualized and designed the study. BFP, FOA, OTA and MUS analyzed and interpreted the data. EOS, MS and MA researched information for the paper and

contributed to the drafting of the original document. TF, BIA, BFP, AH, OF, EOG and UM reviewed and edited the manuscript. All authors have read and agreed to the published version of the manuscript.

Funding

This study was conducted by the Lagos State AIDS Control Agency (LSACA) and funded by the United Nations Population Fund (UNFPA)

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