

# Sexual Behaviour and Determinants of Reproductive Health Services Utilization Among Young People in a Rural Nigerian Community

Ajibola Idowu<sup>1,\*</sup>, Oluseyi Kikelomo Israel<sup>1</sup>, Roseline Oluyemisi Akande<sup>1</sup>, Olatayo Ayodele Aremu<sup>1</sup>, Yetunde Toyin Olasinde<sup>2</sup>

<sup>1</sup>Department of Community Medicine, Bowen University, Iwo, Nigeria

<sup>2</sup>Paediatric Department, Bowen University Teaching Hospital, Ogbomoso, Nigeria

## Email address:

idajibola@yahoo.com (A. Idowu), drssk2003@yahoo.co.uk (O. K. Israel), rossmodupe@yahoo.com (R. O. Akande),

drcapotee@yahoo.com (O. A. Aremu)

\*Corresponding author

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**Abstract:** Background: Adolescents in West Africa face humungous sexual and reproductive health (SRH) challenges unlike their counterparts in developed countries. It is thus, important to contextually understand some of the factors influencing uptake of SRH services among young people in a low resource setting. Objectives: This study assessed sexual behaviour and predictors of SRH-services access and utilization of youths in Ejigbo, Osun-State, Nigeria. Methods: Cross-sectional design was used and multi-stage sampling method deployed in recruiting 430 study participants. Data were collected using pretested, semi-structured, interviewer-administered questionnaire. Summary statistics were done using proportion, mean and standard deviation. Inferential statistics were done using chi-squared test and binary logistic regression at  $p \leq 0.05$ . Results: Mean age ( $\pm$ SD) of the respondents was  $19.07 \pm 2.78$ , 54.1% of them were males while 56.8% were schooling as at the time of the survey. More than a quarter (38.6%) of the respondents were sexually active prior to the survey and 14.6% of the recent sexual encounters were forced/coerced. While 25.2% had multiple sexual partners, only 43.0% used contraception (mainly condom) in their recent sexual experiences. The predictors of contraceptive (hence SRH-service) use were respondents' schooling status (OR=5.45, 95%CI=1.26-4.388), living situation (OR=0.430, 95%CI=1.960-3.8111) and demand for SRH services in the last clinic visits (OR=2.976, 95%CI=1.960-7.848). Conclusion: There was high prevalence of risky sexual behaviour and low SRH service utilization in the study setting. Nigerian government and its development partners need to be more proactive at ensuring universal access and utilization of SRH-services particularly to young people in the rural areas.

**Keywords:** Contraceptives, Adolescents, Youths, Young People, Sexual Behavior

## 1. Introduction

Globally, the Sexual and Reproductive Health (SRH) concerns of the young people (aged 10-24 years) are of public health importance. Young people include the adolescents (10-19 year old) and the youths (15-24 year old people) [1]. Interestingly, our world today has the highest percentage of young people in history as 1.8 billion people are in this age category (constituting about 27% of the global population) [1].

Moreover, an estimated 1.2 billion people are persons aged 10-19 years (adolescents), accounting for 16% of the world's population [2]. Majority of these young people are found in developing countries like Nigeria which has a 2020 projected population of over 200 million people [3]. Recent data shows that 63.3% of Nigerians are below 25 years of age with adolescents constituting about 22.5% of the population [4].

Since the 1994 International Conference on Population and Developments (ICPD) [5], SRH concerns of young

persons have received the much-needed attention particularly in most developed countries. Yet, SRH services to young people is still rudimentary in most developing countries in spite of the demographic and socio-economic significance of this group of people. Poor or lack of attention to the SRH concerns of the young people could have dire consequences on the future socio-economic indices of their respective countries [1].

In most West African (WA) countries, Adolescent Sexual and Reproductive Health (ASRH) is still facing humungous challenges and services are either not available, accessible, affordable, acceptable or not accommodative enough. A review of literature by Melesse et al. (2020), revealed an obvious inequity in distribution of ASRH services in sub-Saharan countries [6]. Also, a 2015 WHO report shows that a vast majority of adolescents in African region have no access to Comprehensive Sexuality Education (CSE) [7]. These factors among others could be responsible for the high rates of unwanted pregnancies and child marriage in the African region and in WA precisely. Many girls in WA of which Nigeria is key, are forced into marriages in leu of quality education, making them to have reduced economic powers to negotiate sex and demand for needed SRH services [7]. It also forces many young girls to engage in transactional and intergenerational sexual relationships with weakened sex and contraceptive negotiation powers thereby increasing their vulnerability to sexually transmitted diseases (including HIV) and unplanned pregnancies [8].

Globally, about 16 million adolescents give birth yearly and almost three-quarters of adolescent pregnancies is recorded in developing countries [9]. The WHO recently estimated that at least 10 million unintended pregnancies are reported among girls aged 15-19 years in developing countries each year [10]. Moreover, a 2018 UNICEF data shows that whereas the global adolescent birth rate was 44 birth/1000 livebirths, this figure stood at 115/1000 livebirths for West and Central Africa, making the region to have the highest adolescent birth rate globally [11]. Yet, pregnancy/childbirth is currently the leading cause (39.7%) of deaths among Nigerian adolescent girls [12]. Also, one of the dire consequences of adolescent pregnancy and child marriage in a country is low school enrolments rate and high school dropout rate. Today, more than one-in-five out-of-school children anywhere in the world are found in Nigeria and only 67% eligible children are enrolled in primary education across the country as of 2018 [13]. Girls are disproportionately affected in terms of school enrolments as only 41% of girls in the north-east and 47% in the northwest are currently receiving primary education [13].

Lack of access to good quality SRH services and continuation of some harmful traditional practices are a contravention of several treaties such as the Convention on Elimination of All Forms of Discrimination Against Women (CEDAW, 1987) [6], ICPD resolutions, the Beijing and Maputo Plans of Actions [14-16]. Thus, realization of the

Sustainable Development Goal-3 may be elusive in Nigeria if deliberate actions are not taken [17].

Meanwhile, Nigeria was one of the first African countries to introduce CSE into the national school curricular. The country was also among the first African nations to formulate the national adolescent reproductive health policies and strategies. In spite of these government's efforts since ICPD 1994, access to and utilization of SRH services have remained low in Nigeria. Also, SRH indices for young people have remained appalling particularly in most rural communities of the country [12, 18]. For instance, the contraceptive prevalence rate (CPR) for any method was estimated at 17% and unmet contraceptive need was estimated at 48% among unmarried women in the 2018 Nigeria DHS report [12]. The report also shows that 19% of adolescent girls aged 15-19 years have begun childbearing while 14% of them had given birth as at the time of the survey [12]. Similarly, a 2015 Guttmacher Institute's report revealed the rate of induced abortion among Nigerian women aged 15-45 years to be as high as 33 per 1,000 women [19]. The report also revealed that about 212,000 Nigerian women were treated for complications of unsafe abortion in the same year [19]. Meanwhile, a recent study revealed that complications of abortion account for about 5.7% of maternal deaths in Southwest Nigeria [20]. Many of these unsafe abortions occur among young girls. A large percentage of Nigerian girls/women clandestinely opt for unsafe abortions as a result of the restrictive abortion laws in the country as safe abortion care can only be provided to save the life of the mother.

These poor SRH indices for young Nigerians underscore the need for more innovative research as there is currently dearth of comprehensive information on sexual behaviour and barriers to accessing SRH services particularly by young people in rural Nigeria. The objective of this study was thus to elucidate on young people's sexuality, their access to and utilization of SRH services in a resource-poor setting. Information generated from this study can guide in the design of cost-effective SRH policies and interventions for young Nigerians.

## 2. Materials and Methods

**Study setting and design:** This cross-sectional study was conducted within Ejigbo community which is the administrative headquarters of Ejigbo Local Government Area (LGA) of Osun State Nigeria. The 2017 projected population for Ejigbo was about 182,500 according to the Nigeria Bureau of Statistics. Yoruba is the dominant ethnic group in Ejigbo. Most inhabitants are peasant farmers but a sizable proportion of them are civil servants while others engage in trading activities which often make them to travel to other Francophone West African countries.

**Inclusion/exclusion criteria:** Schooling and out-of-school youths aged 15-24 years, who have been resident in the community for at least 6 months and who gave assents/consents were included in the study. Younger

adolescents and youths who were adjudged to have illnesses which can prevent them from giving valid responses to our questions were exempted from the study.

**Sample size determination:** The minimum sampling size for the study was calculated using the Lesley Kish formula for estimating single proportion in a population greater than 10,000. Based on the 2018 DHS report for Nigeria, 28% of our respondents were assumed to be using contraception prior to the study [21]. A standard normal deviate of 1.96 at 95% Confidence Level and a 5% margin of error was used. A 10% non-response rate was envisaged and corrected for while the result was multiplied by 1.2 to correct for possible cluster effect. In all, a minimum sample size of 413 was estimated but 438 respondents participated in the study.

**The sampling method:** A cluster multi-stage sampling method was used in recruiting eligible study participants. In the first stage, Ejigbo was selected from the list of 30 LGA in Osun State by simple random method (balloting). List of existing 11 electoral wards was obtained from the LGA secretariat and two of them were chosen using simple random sampling method (balloting). All households with eligible respondents in each of the selected electoral wards were then visited for questionnaire administration. Where a household has more than one eligible respondent, one of them was chosen via simple random sampling method.

**Data collection method and instrument:** An interviewer-administered, semi-structured questionnaire was used for data collection. It has sections for socio-demographic characteristics of respondents, their sexual behaviour, and level of utilization of SRH services. A translation of the questionnaire into Yoruba language was made for respondents who preferred answering in their local language. Back translation was done into English language to preserve the original meanings of the questions asked. Data were collected by a group of 15 medical students trained by the principal investigator on questionnaire administration to youths in rural settings. Data were collected within three weeks in December, 2020.

**Pretesting:** The pretesting of the questionnaire was done in Ife-Odan community among 50 young people who were chosen by convenience sampling method. This community was not one of the ones used for the main study. The pretesting exercise helped us to strengthen the internal validity of our questionnaire. We were able to assess the adequacy of each of the questions in eliciting the desired responses from the study participants. Ambiguous questions observed were either re-phrased or completely deleted in line with the study objectives.

**Data Management:** Each questionnaire was edited on the field daily before the data were entered into Statistical Package for Social Sciences (IBM SPSS Statistics for Windows, version 23.0 Armonk, NY: IBM Corp.) which was used for analysis. Categorical data were summarized using percentages and presented in Tables and Charts. Continuous data were summarized using mean and standard deviation. At

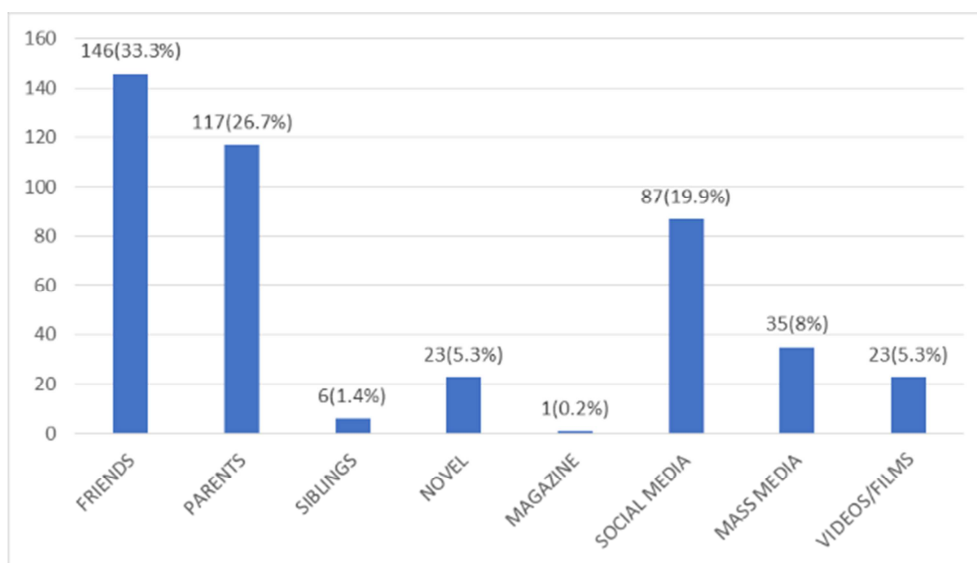
the bivariate level, Chi-Square test was used to compare categorical variables and the level of statistical significance was placed at  $p < 0.05$ . A stepwise binary logistic model was built at the multivariate analysis level. Selection of variables into the model was based on whether they statistically significant at the bivariate level or if they had been previously reported in literature as significant predictor of SRH services utilization. Odds Ratio (OR) and 95% Confidence Intervals (CI) were obtained to identified the significant predictors of SRH service utilization in the study location.

**Ethical Consideration:** Ethical Clearance to conduct the study was obtained from the Ethical Review Committee of the Bowen University Teaching Hospital, Ogbomoso. Also, permission was obtained from the community leader before commencing the study. Written Assents/consents were obtained from each participant and they were only allowed into the study after the research objectives were clearly explained to them. Participation in the research was entirely voluntary and participants were allowed to opt out at any stage of the interview if they so wished. Responses from the study participants were kept strictly confidential as the questionnaires were made anonymous through coding rather than use of names. Moreover, data were entered into computers which were only accessible to the principal investigators. The study inflicted no harm to the study participants and there was no need for compensation.

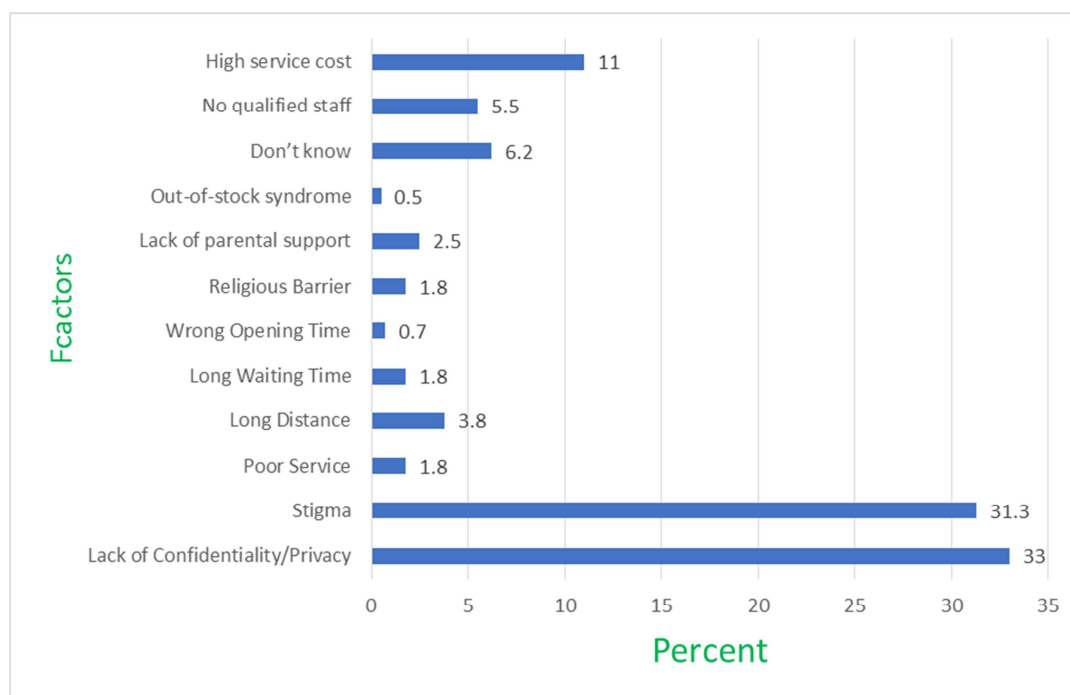
### 3. Results

Out of the administered 450 questionnaires, 438 were returned satisfactorily completed (97.3% response rate). Mean ( $\pm$ SD) age of the respondents was  $19.07 \pm 2.78$  years. More than half (59.9%) of the respondents were 15-19 years of age but only 56.8% of them were schooling as at the time of the survey. While 54.1% of the respondents were males, almost all (99.1%) were of Yoruba ethnic group. Almost three-quarter (73.5%) of the respondents were Muslims, three-quarter of them (75.6%) attained secondary education. Half (50.5%) of the respondents had mothers with secondary education and 29.4% of the respondents were employed. Majority (90.0%) of the respondents were never married while 43.2% were living with both parents (Table 1). The most prevalent sources of SRH information were friends (33.3%) and parents (26.7%), respectively (Figure 1).

Table 2 shows that 38.6% of the respondents have had sexual experiences prior to the survey. Majority (62.3%) of the sexually active respondents had their sexual debuts when they were 15-19 years of age but 11.1% of the first sexual encounters were forced or coerced. Not less than 43.3% of the sexually active respondents stated they had more than one sexual partner with 53.8% having at least two lifetime partners. While 91.8% of the sexually active respondents engaged in heterosexual activities, 6.2% were bisexual while 1.8% were homosexual.



**Figure 1.** Respondents' sources of information on SRH.



**Figure 2.** Respondents' perceived hindrances to SRH services utilization in the study population.

In Table 3, 22.2% of the sexually active respondents had frequent sexual experiences of which 30.7% of the sexual encounters occurred within a week prior to the survey. Not less than 14.6% of the recent sexual experiences were forced and 88.8% were heterosexual in nature. Of the sexually active respondents, 25.2% currently have at least two sexual partners. Drugs were used to enhance sexual performances in 14.2% of the most recent sexual experiences and alcohol constituted 87.5% of the performance enhancing drug used. Almost half (45.4%) of the respondents were not aware of the available SRH services in their communities while only 30.8% of them were aware of contraceptive services. A quarter (25.6%) of the respondents stated they had sought SRH services in the healthcare facilities in

the past, 55.4% of such respondents had sought care up to three times in the past one year. Of the SRH-service seekers, 55.4% received contraceptive counselling and 42.9% demanded for contraceptive services in the last clinic attendances. In all, only 43.0% of the sexually active respondents used contraceptives in their recent sexual encounters of which condom was the most prevalent method (81.9%). Above three-quarter (87.5%) of the SRH-service seekers stated they were confident enough to ask SRH-related questions and 60.3% of such respondents got satisfactory answers to their questions. More than half (56.3%) of service users felt there was no enough privacy in delivering SRH services to them and only 54.0% were assured of confidentiality of the information obtained from them.

**Table 1.** Socio-demographic Characteristics of respondents.

Variable	Frequency, N=438	Percent (%)
Age (years)		
< 15	4	0.9
15 – 19	260	59.9
20 – 24	171	39.0
≥ 25	3	0.2
Means (SD)	19.07±2.78	
Schooling status		
In-school	249	56.8
Out-of-school	189	43.2
Sex		
Male	237	54.1
Female	201	45.9
Tribe		
Yoruba	434	99.1
Hausa	0	0.0
Igbo	4	0.9
Religion		
Islam	322	73.5
Christianity	105	24.0
Traditional	11	2.5
Level of Education		
None	8	1.8
Primary	23	5.2
Secondary	331	75.6
Tertiary	76	17.4
Mother's Education		
None	93	21.2
Primary	59	13.5
Secondary	221	50.5
Tertiary	65	14.8
Employment status		
Student	264	60.3
Employed	129	29.4
Unemployed	45	10.3
Marital status		
Never married	394	90.0
Cohabiting	6	1.4
Married	37	8.4
Separated	1	0.2
Divorced	0	0.0
Widowed	0	0.0
Living situation		
Living alone	79	18.0
Living with friend	12	2.7
Living with single parent	120	27.4
Living with both parents	189	43.2
Living with relatives	25	5.7
Others	13	3.0

**Table 2.** Respondents' First Sexual Experiences.

Variable	Frequency	Percent
Ever had sex		
Yes	169	38.6
No	269	61.4
Age at first sexual encounter (Years)	n=169	
10-14	16	9.4
15-19	105	62.3
20-24	46	27.1
Can't remember	2	1.2
Nature of first sexual experience		
Forced	19	11.1
Consensual	150	88.9
History of multiple sexual partner		
Yes	73	43.3

Variable	Frequency	Percent
No	96	56.7
Number of lifetime sexual partner		
1	29	17.2
2	49	29.0
≥2	91	53.8
Types of first sexual experience		
Heterosexual	155	91.8
Homosexual	11	6.5
Bisexual	3	1.8
Use of contraception at first sexual encounter		
Yes	67	39.5
No	102	60.5
Types of Contraception used in the first sexual encounter		
Emergency contraception		

**Table 3.** Respondents' current/most recent sexual experiences and SRH services utilization.

Variables	Frequency	Percent (%)
Frequency of sexual activities		
Rarely	53	31.0
Seldomly	78	46.8
Frequently	38	22.2
Most recent sexual experience		
Within a week	52	30.7
Within a month	59	35.0
Within a year	58	34.3
Nature of the most recent sexual experience		
Forced	25	14.6
Consensual	144	84.4
Types of most recent sexual relation		
Heterosexual	150	88.8
Homosexual	14	8.3
Bisexual	5	3.0
Contraceptives used in the most recent sexual experience		
Yes	73	43.2
No	96	56.8
Types of contraceptives used	n=73	
Emergency contraception	7	9.7
Herbal medicine	6	8.3
Condom	60	81.9
Number of current sexual partners	n=169	
None	35	21.6
1	91	53.2
≥2	43	25.2
Used drugs to enhance the last sexual encounter		
Yes	24	14.2
No	145	85.8
Types of drug used	n=24	
Alcohol	21	87.5
Marijuana	1	4.2
Cocaine	0	0.0
Heroin	0	0.0
Tramadol	0	0.0
Others	2	8.3
Perceived available SRH services	N=438	Multiple responses
Family planning counselling and services	135	30.8
Safe abortion care	67	15.3
HIV counselling and services	175	39.9
STD diagnosis and care	129	29.4
Pregnancy test and care	131	29.9
Don't know	188	45.4
Ever visited health facilities for to receive services or information on contraception, pregnancy, abortion or sexually transmitted diseases?		
Yes	112	25.6
No	326	74.4
Number of times information was sought from a doctor or a nurse for SRH services in the last twelve months	n=112	
1 – 3	61	54.5
4 – 5	24	21.4

Variables	Frequency	Percent (%)
≥ 5	27	24.1
Types of clinic visited		
Private	71	63.4
Government	41	36.6
Clinic distance		
Within 5 minutes	34	30.4
Within 30 minutes	52	46.4
More than 30 minutes	26	23.2
Posters on SRH sighted at the healthcare facility		
Yes	61	54.5
No	51	45.5
Received talks on contraception		
Yes	62	55.4
No	50	44.6
Requested for contraceptive services in the last clinic visits		
Yes	48	42.9
No	64	57.1
Felt comfortable enough to ask SRH questions		
Yes	98	87.5
No	14	12.5
Satisfactory answers received on questions asked	N=98	
Yes	62	60.3
No	36	37.9
Perceived privacy to share information during consultation		
Enough privacy	49	43.7
No privacy	63	56.3
Assured of confidentiality of information shared with HCW		
Yes	61	54.0
No	51	46.0

The most predominant perceived hindrances to SRH-service access in the study population was lack of confidentiality/privacy of service deliveries and stigmatization of adolescents seeking care. These were reported by 33.0% and 31.3% of the respondents, respectively. High service cost was stated as a barrier by 11.0% of the respondents while lack of parental support accounted for 2.5% of the barrier factors (Figure 2).

Table 4 shows that in-school respondents constituted significantly higher proportion (55.3%) of those who used contraception in the last sexual encounters ( $p=0.001$ ). Additionally, educated respondents constituted significantly higher percentage (42.5%) of the contraceptive users ( $p=0.002$ ). Respondents who were living alone had significantly lower

percentage (38.0%) of contraceptive users when compared with youths with other living arrangements ( $p=0.023$ ). Those who demanded for SRH services in the last clinic visits constituted significant higher percentage (67.7%) of contraceptive ( $p=0.007$ ).

At the multivariate level (Table 5), In-school respondents were 6 times more likely to use contraceptives compared to their out-of-schooling counterparts ( $OR=5.45$ ;  $95\%CI=1.264-4.388$ ). Respondents who were living alone were 57% less likely to use contraceptives compared to those with other living arrangements ( $OR=0.43$ ;  $95\%CI=1.96-3.81$ ). Respondents who requested for contraceptive services in the last clinic visits were 3 times more likely to use contraception compared to those who did not ( $OR=2.98$ ;  $95\%CI=1.14-5.66$ ).

**Table 4.** Factors associated with contraceptive use in the last sexual experiences of the respondents.

Variable	Used contraception in the last sexual experience		Total	X <sup>2</sup>	p-value
	Yes (%)	No (%)			
Age (years)				1.580	0.454
< 15	1 (100.0)	0 (0.0)	1		
15 – 19	25 (40.3)	37 (59.7)	62		
20 – 24	47 (44.3)	59 (55.7)	106		
≥ 25	0 (0.0)	0 (0.0)	0		
Schooling status				6.507	0.011*
In-school	41 (53.9)	35 (46.1)	76		
Out-of-school	32 (34.4)	61 (65.6)	93		
Sex				11.300	0.057
Male	59 (52.2)	54 (47.8)	113		
Female	14 (25.0)	42 (75.0)	56		
Religion				2.260	0.323
Islam	15 (35.7)	27 (64.3)	42		
Christianity	53 (44.5)	66 (55.6)	119		
Traditional	5 (62.5)	3 (37.5)	8		
Level of Education				8.708	0.033*
None	1 (20.0)	4 (80.0)	5		

Variable	Used contraception in the last sexual experience		Total	X <sup>2</sup>	p-value
	Yes (%)	No (%)			
Primary	3 (25.0)	9 (75.0)	12	1.304	0.728
Secondary	44 (38.6)	70 (61.4)	114		
Tertiary	22 (57.9)	16 (42.1)	38		
Mother's Education				12.555	0.028*
None	15 (40.5)	22 (59.5)	37		
Primary	18 (47.4)	20 (52.6)	38		
Secondary	31 (40.3)	46 (59.7)	77		
Tertiary	9 (52.9)	8 (47.1)	17	1.245	0.265
Living situation					
Living alone	25 (55.6)	20 (44.4)	45		
Living with friend	3 (33.3)	6 (66.7)	9		
Living with single parent	21 (53.8)	18 (46.2)	39		
Living with both parents	19 (39.6)	29 (60.4)	48		
Living with relatives	3 (18.8)	13 (81.3)	16		
Others	2 (16.7)	10 (83.3)	12		
Used drugs to enhance the last sexual encounter				0.001	0.980
Yes	13 (54.2)	11 (45.8)	24		
No	60 (42.00)	83 (58.0)	143	0.372	0.542
Ever visited health facilities for to receive services or information on contraception, pregnancy, abortion or sexually transmitted diseases?					
Yes	28 (43.1)	37 (56.9)	65		
No	45 (43.3)	59 (56.70)	104	4.985	0.026*
Received talks on contraception					
Yes	19 (51.4)	18 (48.6)	37	5.125	0.077
No	15 (44.1)	19 (55.9)	34		
Demanded for SRH services				5.125	0.077
Yes	20 (62.5)	12 (37.5)	32		
No	14 (35.9)	25 (64.1)	39		
Clinic distance					
Within 5 minutes	7 (31.8)	15 (68.2)	22	5.125	0.077
Within 30 minutes	21 (60.0)	14 (40.0)	35		
More than 30 minutes	5 (35.7)	9 (64.3)	14		

\*Statistically significant at  $P < 0.05$ .

**Table 5.** Predictors of contraceptive use in the last sexual experiences among the respondents.

Variable	B-Coefficient	P-value	Odds Ratio	95%CI
Schooling status				
In-school	RC	0.011*	5.45	1.26-4.388
Out-of-school	-0.803			
Sex				
Male	RC	0.061	0.305	0.150 – 2.620
Female	-1.187			
Level of Education				
None	RC			
Primary	2.485	0.056	12.000	0.936 – 5.388
Secondary	1.851	0.103	6.364	0.689 – 8.798
Tertiary	1.068	0.359	2.909	0.296 – 8.554
Living situation				
Living alone (RC)		0.027*	0.430	1.960-3.8111
Other	-1.764			
Requested for contraceptive services in the last clinic visits				
Yes	1.091	0.021*	2.976	1.129 – 7.848
No	RC			

\*Statistically Significant  $p < 0.05$  RC=Reference Category CI=Confidence Interval

## 4. Discussions

In the current study, 38.6% of the respondents have had sexual experiences prior to the survey. This finding is in keeping with results from previous studies [4, 22]. Majority of the sexually active respondents in the current study had their

sexual debuts when they were 15-19 years of age. This is also in consonance with the reports from past studies [12, 23, 24].

The current study also revealed that 11.1% and 14.6% of the first sexual and the most recent sexual encounters were forced or coerced. Recent studies have indicated increasing burden of sexual violence in Nigeria of which females are main victims [25, 26]. Sexual assaults occur both within and



outside the family settings, aggravated by the worsening insecurity in the country in which bandits often rape and sexually molest their female victims. Regrettably, most sexual violence cases in Nigeria go unreported due to the stigma attached to it, making many victims to silently nurture the emotional trauma over a long period. Hence, relevant agencies need to work synergistically to ensure that victims of sexual violence have enabling environment and necessary supports to disclose their ordeals. Also, there is urgent need to fully implement the 2015 Violence Against Persons Prohibition Act (VAPPA) which criminalize sexual violence in Nigeria [27].

Many of the sexually active study participants had multiple sexual partners in the current study. Also, performance enhancing drugs (mainly alcohol) was used in some of the most recent sexual activities. These indicates high rate of Risky Sexual Behaviour (RSB) among the respondents similar to what have been reported in previous studies [28–31].

Even though majority of respondents in our study were confident to talk about their SRH concerns, only half of them were assured of confidentiality of the given SRH information while less than half stated there was adequate privacy in their last clinic visits. Hence, authors recommend increased efforts by service providers to ensure that young people seeking SRH services are treated as right-owners, with dignity and confidentiality, free of stigma and discrimination. The duty-bearers (governments) should ensure establishment of well-equipped youth friendly health centers at strategic locations particularly in rural areas of Nigeria to improve access to SRH services.

In the current study, contraceptives were used in less than half of the most recent sexual encounters. Moreover, only half of SRH-services seekers received contraceptive counselling while less than half of them demanded for contraceptive services in the last clinic attendances. Our findings are in concordance with what have been reported in previous studies [32, 33]. Also, the 2018 Nigeria DHS report estimated that only 28% of unmarried women use modern contraception while unmet need for modern contraception was as high as 48% among unmarried women in Nigeria. Yet, the vision of the United Nations FP2020 programme was to ensure equitable access to contraception particularly to the vulnerable groups such as the adolescents, women and those in lower socio-economic class [34]. Thus, Nigerian policy makers need to further prioritize universal access to modern contraception for the young people. Appropriate social-marketing strategies should be deployed, and varied channels of communication utilized to ensure that accurate and reliable SRH information are made available to improve utilization of SRH services by the Nigerian youths.

Educated youths were more likely to use contraceptives in our study population. This underscores the importance of basic education in determining healthcare service utilization as youths have access to age-appropriate sexuality education. Consequently, the Nigeria governments need to invest more to ensure universal access to quality education in the country.

Respondents who were living with their parents were also

more likely to use contraception compared to those living alone or with friends in the current study. Family connectedness has been reported as a strong predictor of adolescent/youth sexual behaviour with those living with parents engaging in lesser RSBs [35]. Thus, Nigerian parents need to be carried along in providing age-appropriate sexuality education to the adolescents in schools. Moreover, financial barriers to accessing SRH services by the Nigerian adolescents/youths can be eliminated by increasing budgetary allocation to health. A well-articulated Conditional Cash Transfer (CCT) and voucher systems in addition to a veritable Private-Public partnership can also be explored in trying to achieve universal SRH service coverage for the Nigerian youths. These strategies have the capacity to improve the demand and utilization of SRH services among the adolescents/youths as only those who demanded for services in their last clinic visits in the current study eventually used contraception which we used as a proxy for SRH service utilization.

Based on findings from the current study, authors call for implementation research to assess the impacts of existing interventions aiming at improving access to Youth Friendly Health Services in Nigeria. With this, identified impactful programmes can be reenergized or replicated for greater results while the less effective ones are either replanned or deemphasized. Moreover, there is need for qualitative research to fully understand the socio-cultural factors influencing uptake of SRH services among Nigerian youths in rural areas.

#### Study Limitation

The results from this study may have been affected by social-desirability bias in which respondents may have given responses which they believed may be of interest to the investigators. The fact that cluster-effect was corrected for and a sufficient sample size used may have minimized the effects of this bias.

## 5. Conclusion

There is preponderance of risky sexual activities and sub-optimal SRH services utilization among youths in the study population. Lack of confidentiality and stigmatization were the perceived hindrances to SRH use among the respondents. School-going respondents, those living with parents and those who demanded for care were more likely to use SRH services. The Nigerian governments need to be more proactive in making equitable SRH services universally accessible to the young people who are living in the rural areas.

## Authors Contributions

AI conceptualize the research Idea and drafted the manuscript, OKI reviewed the manuscript for important intellectual contents, ROA supervised data collection and analysis, OAA reviewed the article for important intellectual contents. All authors gave approvals for publication of the final draft.

## Conflict of Interest Statement

The authors declare that they have no competing interests.

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