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Preferences and Motivations for Choice of Sexual and Reproductive Health Service Providers among In-School Adolescents in Osun State, Nigeria

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Abstract

Adolescents' need for Sexual and Reproductive Health (SRH) has been underscored globally. Poor utilization of the services by adolescents has been reported. Adolescent-friendly healthcare professionals are very important in motivating adolescents' utilisation of SRH services in Nigeria. This study assessed the preferred facility and Service providers by in-school adolescents in Osun state, Nigeria. A descriptive cross-sectional design was employed to survey 422 in-school adolescents in public and private secondary schools in Osun state. A multi-stage sampling technique was used to select participants and data was collected using a self-administered questionnaire. Quantitative data analysis was done using descriptive and inferential statistics with SPSS version 23. The majority (91.0%) of adolescents were middle-aged (14 – 16 years) while a few (9.0%) were late adolescents (17-19 years). Preference when assessing SRH services was more for doctors (36.5%) and nurses (30.3%). Preferred facilities for SRH services include private hospitals (38.3 %), school clinics (26.4%), primary health centres (6.5%), general hospitals (2.5%), Maternity centres (11.4%) and teaching hospitals (1%). Active utilization of SRH by adolescents requires the availability and involvement of their preferred health personnel.

Keywords: *Health service providers, In-school adolescents, Motivation, Preferences service utilization, Reproductive health.*

Introduction

Adolescents are referred to as young people, neither children nor adults, between the ages of 10- and 19-years [1] Adolescents' need for sexual and reproductive health (SRH) has been underscored globally. Adolescents in Nigeria are caught between tradition and changing cultures brought about by current trends via the dominant influences of the internet and social media in making decisions about sexual and reproductive health [2] Unprotected sexual activity, undesired pregnancy, unsafe abortion, and Sexually Transmitted Infections (STIs), including HIV and AIDS, have increased as traditional mechanisms for dealing with and controlling adolescent sexuality, such as early marriage, and chastity before marriage are being eroded [3].

Globally, adolescent's SRH concerns have increased [4, 5]. These concerns are largely determined by the increasing burden of HIV/AIDS and other STIs, early childbearing and risky sexual behaviours among adolescents [6]. However, these concerns have not frequently been transformed into action [7]. The utilisation of SRH services is important in

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preventing diverse SRH challenges among adolescents

Adolescent-friendly healthcare professionals are very important in motivating adolescents' utilisation of SRH services in Nigeria, as embarrassment and fear of stigmatisation are among the main concerns adolescents express as reasons for not using SRH services. They primarily prefer to interact with allied professional SRH services and facilities such as chemists or pharmacies, patent medicine vendors and traditional healers to purchase over-the-counter (OTC) drugs, contraception, and in cases of unwanted pregnancies, and abortions [8, 9]. They avoid professionals and health facilities to evade documentation and its effects. However, for near or complicated cases, adolescents prefer professionals such as physicians and nurses.

Adolescent participation, community support, healthcare provider competency, appropriate service packaging, equity and non-discrimination, data collection and quality improvement, and adolescent health literacy are all factors that must be taken into account when providing high-quality SRH services, according to WHO standards [1]. These are factors that would have motivated adolescents to use the available SRH services. The need to explore health personnel and facilities of preference for SRH services among adolescents is underscored by the menaces associated with neglect of Adolescent Sexual and Reproductive Health, vis-a-vis agonising or detrimental transition to adulthood, lifelong regrets, ill-health and other effects. Inevitably, these have tremendous impacts on the well-being (physical and mental) of the individual, aside from the implications for families, friends and the community [10].

Although several studies have focused on adolescents' health in Osun State, Nigeria, minimal efforts have been made to explore preferences of SRH service providers and facilities among in-school adolescents in Osun State as this study does. Furthermore, undesirable SRH behaviours such as cohabitation, early marriage, teenage pregnancies and criminal abortions are more common among adolescents residing in rural areas compared to their urban counterparts [11].

Materials and Methods

This study was conducted among adolescents enrolled in selected public and private senior secondary schools in Osun State using a cross-sectional mixed-method design. In-school adolescents below 18 years in boarding houses were excluded from the study as it was not feasible to get permission from parents or guardians for their children/wards to be included in the study.

The sample size was 422. This was determined using Cochran's formula $N = Z2pq/d2$, Where N is the minimum required sample size (used when the target population is more than 10000), Z is the standard normal deviation set at 1.95 (this corresponds to 95% confidence level), $p = 0.5$ (set at 50% maximum variability due to unknown degree of variation or population in the large population), $q = 1- p$ (i.e., $1 - 0.5) = 0.5$, and d = permitted margin of error (MoE) desired level of precision. Twenty-four adolescents were recruited purposively for in-depth interviews. The recruitment was terminated when no new information was forthcoming from respondents (redundancy criterion).

A simple random sampling technique through balloting was utilised to select a local government from each senatorial district, making six local governments selected. They are Ife Central, Area office, Ede North, Egbdore, Irepodun and Osogbo local government areas. Each local government area was stratified into rural and urban settings. Then one private and one public school was selected in each local government area through simple random sampling, wholly twelve senior secondary schools were selected. Thereafter, the weighted proportion of the students in the selected schools and classes (SSS1 –SSS3,

Grade 11-12) was calculated. Thus $X1 = X2 \times n \div X3$ Where: X1 = Number of respondents to be selected from a school X2 = Population of the school X3 = the total population of the selected schools n = Sample size. After which, eligible respondents were selected in each private and public school, using computer-generated random numbers proportionately by gender and number of arms (science, commercial and art classes) from each school.

The study utilized a structured questionnaire to gather data from the in-school adolescents concerning adolescent's characteristics, motivation, preferences and utilization of SRH services among the in-school adolescents. Also, Qualitative data was obtained from the in-school adolescent service provider of preference. The quantitative and qualitative findings were triangulated for synergy. An instrument for the quantitative study was the interviewer-administered questionnaire, which was adapted from the WHO Illustrative Questionnaire and Interview-Surveys for Young People [12] with some questions added from the reviewed literature. The reliability test for the quantitative instrument was done using the test-retest method, which yielded a Correlation Coefficient of 0.7. In-depth interview guides were developed for the in-school adolescents in line with the study objectives for the qualitative study.

A pilot study was conducted in one private school, one public school and one health centre in Ife East LGA, which had attributes similar to the LGAs selected for the study. Twenty-five in-school adolescents from public schools and twenty-five in-school adolescents from private schools participated in the pilot study after gaining their informed consent. Participants' responses were recorded and examined for guidance on the necessary modification of the questionnaire and interview guide to attain a high level of face and content validity. A high standard of internal consistency and reliability rating was also achieved with Cronbach Alpha (0.936).

Data obtained through the questionnaire was assessed for completeness and entered through Microsoft Excel software. This was exported into Statistical Product for Service Solution (SPSS), version 23 (IBM version) for quantitative data analysis. Univariate analysis (frequencies and percentages) was done to determine the proportion of adolescents who have access to SRH services. This was disaggregated by age (mid-adolescents and late adolescents), sex, residence and school type. The same analysis was applied to variables that determine the motivations for SRH services utilization and factors associated with the utilization of SRH services among in-school adolescents. Bivariate analysis (Chi-square test) was used to ascertain the relationship between socio-demographic parameters and elements linked to the use of SRH services among in-school adolescents. Multivariate analysis (logistic regression) was used to identify the significant predictors of access to SRH services.

The motivation for SRH services utilization contains a total of 35 questions, such as how often participants receive support from the nurse, willingness to know about SRH, the preference of the school nurse, and discussion of reproductive health topics in the family. These were measured on an ordinal scale. The factors affecting the utilization of SRH services among in-school adolescents were assessed by the variables in section D of the questionnaire, such as "lack of well-trained health personnel", "cost of services and commodities", and "distance of health facility". This was measured on a dichotomous scale. ("yes", "no"). The independent variables, types and levels of measurement are outlined as follows: Age: Continuous Quantitative. (Ratio scale)Sex: Dichotomous. (Male, Female) Residence: Dichotomous (Rural, Urban) School type: Dichotomous (Private, Public) Class grade: Ordinal (Grade 1, Grade 2, Grade 3).

Qualitative data analysis was done using ATLAS. Ti inductive approach which involves

the use of content techniques to derive codes and themes from the context. The inductive content analysis provided specifically a structural approach which was employed to enhance preparation, organization and generation of codes and themes.

Ethical approval was sought and received from the Health Research and Ethics Committee of the Institute of Public Health, Obafemi Awolowo University, Ile-Ife (IPH/OAU/12/1413) and Osun State Ministry of Education. Permission to obtain data was procured from the Department of Nursing Science, Obafemi Awolowo University Ile-Ife and taken to the heads of the schools where the study was conducted. Consent forms were signed by participants who agreed to participate in the study after the purpose of the study was explained to them. Adolescents who were less than 18 years old and who desired to participate in the study were given assent forms and letters of permission to their parents to allow them to participate.

The right to participate or withdraw at any moment was highlighted, and voluntary involvement was ensured. Due to the sensitive nature of the research topic, adolescents were educated about the possible risks that may occur as a result of disclosing personal information that they might find uncomfortable, embarrassing or emotional. Respondents were given the assurance that if any of these issues arose during the interview, a professional who could offer the required care and help would be referred to them as appropriate.

Results

The findings from both qualitative and quantitative parts of the study are presented below.

Table 1. Percentage distribution of Adolescents by Background Characteristics

	Ede			**Oshogbo**			**Ife**		
	Male	**Female**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**	**Total**
	(n=67)	**(n=66)**	**(N=133)**	**(n=74)**	**(n= 68)**	**(N=142)**	**(n=75)**	**(n= 72)**	**(N=147)**
Place of Residence									
Urban	55.2	51.5	85.7	51.3	55.9	93.7	56.0	58.3	57.1
Rural	44.8	48.5	14.3	48.7	44.1	6.3	44.0	41.7	42.9
Age group (mean = 15.7±1.31) in years									
Mid Adolescents	82.1	89.4	85.7	93.2	94.1	93.7	90.7	95.8	93.2
Late Adolescents	17.9	10.6	14.3	6.8	5.9	6.3	9.3	4.2	6.8
School Type									
Public	56.7	57.6	57.1	59.5	60.3	59.9	48.0	45.8	46.9
Private	43.3	42.4	42.9	40.5	39.7	40.1	52.0	54.2	53.1
Religion									
Christianity	74.6	54.6	64.6	28.4	22.1	25.2	78.7	83.3	81.0
Islam	23.9	43.9	33.9	70.3	77.9	74.1	16.0	15.3	15.6
Traditional	1.5	1.52	1.5	1.4	0.0	0.7	5.3	1.4	3.4
Class									
Grade 10	29.9	36.4	33.1	12.2	16.2	14.2	32.0	31.9	32.0
Grade 11	53.7	37.9	45.9	63.5	64.7	64.1	34.7	43.1	38.9
Grade 12	16.4	25.7	21.0	24.3	19.1	21.7	33.3	25.0	29.1

Ethnicity									
Yoruba	86.6	89.4	88.0	94.6	100.0	97.3	94.7	93.0	94.0
Igbo	7.5	9.1	8.3	2.7	0.0	1.4	5.3	5.6	5.3
Others	5.9	1.5	3.7	2.7	0.0	1.3	0.0	1.4	0.7
Adolescents work for pay after school hours.									
Yes	34.3	34.9	34.6	12.2	7.4	9.9	14.7	16.7	15.6
No	65.7	65.1	65.4	87.8	92.6	90.1	85.3	83.3	84.4
Number of members in the adolescent's household (mean = 6.35±2.18)									
2 – 4	17.9	13.6	33.0	17.6	10.3	14.1	20.0	23.6	32.0
5 – 7	59.7	63.6	45.9	44.6	47.1	64.1	64.0	61.1	38.8
8+	22.4	22.8	21.1	37.8	42.6	21.8	16.0	15.3	29.2

Table 1 presents respondents' socio-demographic characteristics. Results showed that 54.7% of the respondents live in an urban environment. 53.4% of adolescents in Ede, 53.5% in Oshogbo and 57.2% in Ife live in an urban environment. The majority (91.0%) of adolescents interviewed were in their middle adolescence (14 – 17 years), while a few (9.0%) were between 18 – 19 years (late adolescents). Middle adolescents from Ede consisted of 85.7%, Oshogbo 93.7% and Ife 93.2%. Males (51.2%) were slightly more sampled than females (48.8%); in Ede 50.4%, Oshogbo 52.1% and Ife 51%. A roughly equal number of both genders were sampled from each of the locations. More than half (57.1%) were Christians and 4 out of 10 (41.0%) were Muslims. About half (49.5%) of the respondents were in Grade 11, while 26.3% and 24.2% were in Grade 12 and Grade 13 respectively.

Most (93.1%) of the adolescents were of the Yoruba ethnic group while 6.9%) represented other tribes. This was due to the locations being predominantly Yoruba by tribe, and this is reflected in the tribe of the adolescents sampled. The majority (80.3%) reported not working for pay after school hours and (19.7%) were engaged in a paid job; Adolescents from Ede (34.6%) more than the other locations reported working for pay after school hours compared with (9.9%) in Osogbo and (15.7%) in Ife. More than half (56.6%) had between 5 to 7 household members, a few (17.3%) had 2 – 4 members of household and 26% of adolescents' households, had 8 and above members; For Ede (61.7%) of the household were between 5 to 7 members, Oshogbo (45.8%) household were between 5 to 7 members and Ife (62.6%) household were between 5 to 7 members.

Table 2. Service-Provider of Preference for Sexual and Reproductive Health Services among In-School Adolescents in Osun State, Nigeria

Preferred service provider for SRH services	**Hospital Doctor (%)**	**School Nurse (%)**	**Nurses in Health Centre (%)**	**CHEW (%)**	**Pharmacist (%)**	**Chemist (%)**	**Others (%)**
Information about changes in my sexual and reproductive organs such as breasts, vulva and penis	221(66.8)	24(7.3)	44(13.3)	15(4.5)	8(2.4)	7(2.1)	12(3.6)

Information about the effect of changes in my sexual and reproductive organs such as breasts, vulva and penis	204(59.0)	31(9.0)	46(13.3)	15(4.3)	21(6.1)	10(2.9)	19(5.5)
Advice on the hygiene of my sexual and reproductive organs such as breasts, vulva and penis	176(48.5)	35(9.6)	70(19.3)	23(6.3)	18(5.0)	15(4.1)	26(7.2)
Information about breast self-examination	72(42.6)	20(11.8)	40(23.7)	15(8.9)	6(3.6)	5(3.0)	11(6.5)
Information about cervical screening	92(53.5)	17(9.9)	26(15.1)	11(6.4)	7(4.1)	5(2.9)	14(8.1)
Information about handling sexual assault	154(46.7)	43(13.0)	46(19.9)	24(7.3)	16(4.8)	11(3.3)	36(10.9)
Information about how to maintain sexual abstinence	168(49.3)	42(12.3)	52(15.2)	20(5.9)	17(5.0)	10(2.9)	32(9.4)
Information about how to manage sexual urges	146(45)	53(16.7)	36(11.3)	29(9.1)	19(6.1)	8(2.5)	27(8.5)
Information about how to interact with the opposite gender (relationship management)	127(36.5)	55(15.8)	53(15.2)	24(6.9)	34(9.8)	19(5.5)	36(10.3)
Receive vaccine against Cervical cancer and Tetanus	62(36.3)	19(11.1)	34(19.9)	8(4.7)	14(8.2)	13(7.6)	21(12.3)
Purchase of Condoms	60(26.1)	15(6.5)	23(10.0)	23(10.0)	47(20.4)	38(16.5)	24(10.4)
Receive drugs to prevent menstruation irregularity	60(34.9)	20(11.6)	24(14.0)	5(2.9)	16(9.3)	22(12.8)	25(14.4)
Get an injection to regulate menstruation	59(34.3)	13(7.6)	35(20.3)	11(6.4)	15(8.7)	10(5.8)	29(16.9)
Information about pregnancy care	71(41.3)	13(7.6)	30(17.4)	16(9.3)	6(3.5)	6(3.5)	30(17.4)
Information about the risk of having many sex partners	126(46.2)	23(8.4)	51(18.7)	18(6.6)	11(4.0)	15(5.5)	29(10.6)

Treatment of sexually transmitted infections like HIV, Gonorrhoea	179(59.7)	26(8.7)	23(7.7)	25(8.3)	20(6.7)	9(3.0)	18(6.0)
Voluntary counselling and testing for HIV	164(53.9)	32(10.5)	33(10.9)	27(8.9)	13(4.3)	11(3.6)	24(7.9)
Removal of unwanted pregnancy	80(46.5)	8(4.7)	23(13.4)	4(2.3)	11(7.3)	23(7.6)	13(2.3)
Pre and post-abortion counselling	73(42.4)	16(9.3)	21(12.2)	15(8.7)	8(4.7)	4(2.3)	35(20.3)

Table 2 shows the percentage distribution of respondents' service providers of preference for sexual and reproductive health services. 66.8% of the adolescents preferred hospital doctors for information about changes in their sexual and reproductive organs, a few (13.3%) preferred nurses in health centres, and 7.3% preferred school nurses. 59% preferred hospital doctors for information about the effect of changes in sexual and reproductive organs, while 13% preferred nurses in health centres, and a few of the respondents (6.1%) preferred pharmacists. 48.5% preferred hospital doctors for advice on the hygiene of sexual and reproductive organs such as breasts, vulva and penis, 9.6% preferred school nurses, 4.1% preferred chemists and 7.2% preferred other providers. This is corroborated by the responses of the adolescents in the in-depth interview conducted to support the quantitative results. Most respondents reported a preference for doctors and school nurses in assessing sexual and reproductive healthcare services and that they should be the main providers. According to some adolescents;

"I prefer the nurses because most of them are females so one would be very free to talk and they understand me. Female doctors are scarce in this area so, I would prefer the nurses but the person that should be in charge should be the doctors." **(R10).**

"I prefer to see the doctor because most of the time doctors know more about sexual diseases and treatments than other healthcare service providers." **(R17).**

"I prefer the nurse because most nurses are very caring, mature and some of the doctors too are caring but I prefer the nurse for private information." **(R3).**

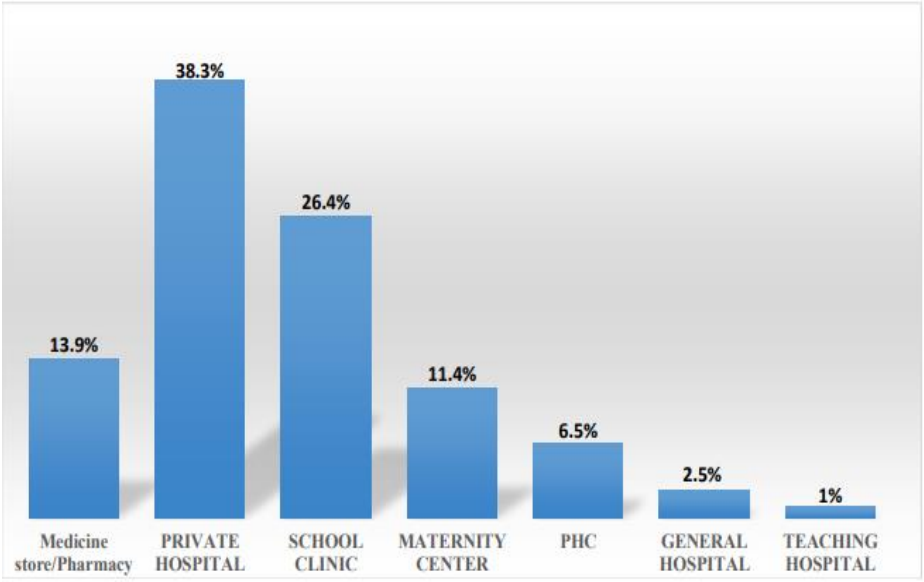

Figure 1. Distribution of Respondents by facility of preference for SRH

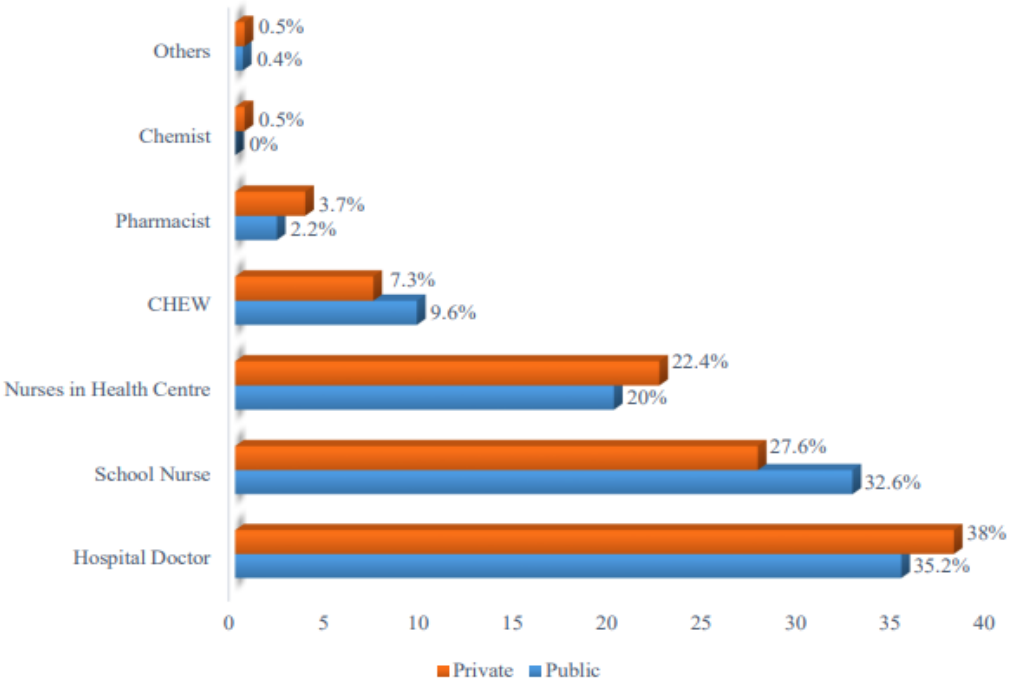

Figure 2. Pattern of Service-Provider Preference for SRH by School Type among Adolescents

Figure 2 shows that 38.0% of adolescents in private and 35.2% in public schools preferred doctors for assessing information about sexual and reproductive health services followed by school nurses preferred by 32.6% in public and 27.6% in private schools. 22.4% of adolescents in private and 20.0% in public schools claimed to be comfortable with nurses in the health centre for assessing information about sexual and reproductive health care services. In addition, 9.6% and 7.3% had a preference for CHEW, and 2.2% and 3.7% pharmacists in private and public schools respectively for information about sexual and reproductive health services.

Table 3. Association between Socio-Demographic Characteristics of Adolescents and the Preferred SRH Services

Characteristics	**Preferred Sexual and Reproductive Health Services**						
	Medicine Store/ Pharmacy (%)	**Private Hospital (%)**	**School Clinic (%)**	**Maternity Centre 3(%)**	**PHC (%)**	**General hospital (%)**	**Teaching hospital (%)**
Age							
Mid adolescents	53 (14.5)	134 (36.7)	99 (27.1)	39 (10.7)	26 (7.1)	10 (2.7)	4 (1.1)
Late adolescents	3 (8.1)	20 (54.1)	7 (18.9)	7 (18.9)	0 (0.0)	0 (0.0)	0 (0.0)
Gender							
Male	34 (16.8)	91 (45.1)	60 (39.7)	15 (7.4)	2 (0.9)	0 (0.0)	0 (0.0)
Female	22 (11.0)	63 (31.5)	46 (23.0)	31 (15.5)	24(12.0)	10 (5.0)	4 (2.0)
Residence							
Urban	37 (17.3)	89 (41.6)	46 (21.5)	20 (9.4)	10 (4.7)	9 (4.2)	3 (1.4)
Rural	19 (10.1)	65 (34.6)	60 (31.9)	26 (13.8)	16 (8.5)	1 (0.5)	1 (0.5)
School type							
Public	31 (14.2)	84 (38.4)	58 (26.5)	26 (11.9)	11 (5.0)	6 (2.7)	3 (1.4)

Private	25 (13.7)	70 (38.3)	48 (26.2)	20 (10.9)	15 (8.2)	4 (2.2)	1 (0.6)
Class grade							
SSS1(GRADE 10)	11 (10.0)	40 (36.4)	30 (27.3)	20 (18.2)	8 (7.3)	0 (0.0)	1 (0.9)
SSS2(GRADE 11)	33 (17.1)	76 (39.4)	52 (26.9)	13 (6.7)	10 (5.2)	8 (4.2)	1 (0.5)
SSS3(GRADE 12)	12 (12.1)	38 (38.4)	24 (24.2)	13 (13.1)	8 (8.1)	2 (2.0)	2 (2.0)

Table 3 presents the association between the socio-demographic characteristics and preferred SRH facilities. Results showed that late adolescents had more preference to obtain SRH services at private hospitals (54.1%) compared to mid-adolescents (36.7%). More respondents who were mid-adolescents (27.1%) preferred obtaining sexual and reproductive health facilities at school clinics compared to (18.9%) of late adolescents. Results showed that the association between preferred SRH services and gender is statistically significant with a p-value less than 0.05 (p=0.001) at a 95% confidence level. More so, 45.1% of male adolescents preferred visiting private hospitals to obtain SRH services compared to their female colleagues 31.5%. The in-school adolescents in urban (41.6%) preferred visiting private hospitals to obtain SRH services (34.6%) in rural areas. The association between the class grade and preferred SRH services showed that 17.1% of students in Grade 11 preferred a medicine store/pharmacy, 39.4% private hospital, 26.9% school clinic, 5.2% primary health care centres and 4.2% general hospital.

Discussion

Results from this study revealed that a significant proportion of the respondents were mid-adolescents with a mean age of 15.7± years, The most probable reason could be that this study had excluded adolescents who were in boarding houses also some adolescents might have dropped out of school because of early pregnancies, gender, and cultural factors and such phenomena are more likely in the rural area. This gender difference is not unusual in studies among adolescents.[4, 13]. More than half of the respondents were Christians and more than half were in SSS 2/Grade 11. The majority of the respondents lived with their parents and most reported that their parents were still living together. Most of the respondents were of the Yoruba ethnic group. Most of them were not working for pay after school hours and more than half had 5 – 7 people living in their household.

The majority of the respondents preferred doctors for information about changes in their sexual and reproductive organs, the effect of changes in sexual and reproductive organs and other SRH services, while nurses are next in preference for the provision of SRH services. They also prefer private hospitals for the provision of SRH services. This is possibly due to the societal attachment of supremacy to the medical profession in Nigeria and the privacy provided in private facilities.

The study concluded that providing in-school adolescents with preferred SRH services and encouraging them to access the available services with their preferred health professional is a significant move to motivating SRH services utilization among in-school adolescents, thereby promoting their sexual and reproductive health.

Limitations of the Study

In Nigerian society, sexuality and issues surrounding it are often not regarded as appropriate subject for open discussions. Given the sensitivity of the subject matter and the self-reported responses employed in the study, it is

possible that in-school adolescents will answer questionnaires in ways that are socially acceptable, which could affect the validity of the study's findings. By guaranteeing adolescents' privacy and secrecy and promoting honest responses, this was successfully managed.

Conflict of Interest

No conflict of interest was declared by the authors.

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