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ORIGINAL ARTICLE

# A Comparative Study of Reproductive Health Care Needs of Adolescent Girls' in Public and Private Schools in Ilorin, Nigeria

**Kudirat Omolabake Yusuf[1*], Muktar Alaba Abdulraheem[2], Maryam Okeshola Okeniyi[1], Ridwan Adewale Oyetunji[1] Fatimah Ajoke Sanni[1], Sulyman Abdulfatahi Odore[3], Bilqis Wuraola Alatishe-muhammad[4], Oladimeji Akeem Bolarinwa[1]**

[1]Department of Epidemiology and Community Health, College of Health Sciences, University of Ilorin, Ilorin, Nigeria.
[2] Department of Social Work, Faculty of Social Sciences, University of Ilorin, Ilorin, Nigeria.
[3] Department of Social Work, Faculty of Social Sciences, University of Benin, Nigeria.
[4] Department of Epidemiology and Community Health University of Ilorin Teaching Hospital, Ilorin, Nigeria.

**[*]Corresponding Author**
Kudirat Omolabake Yusuf
**Email:**
kudiratyusuf26@gmail.com

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## ABSTRACT

**Background:** Many adolescent girls lack essential reproductive health needs that could provide them with proper knowledge, attitude and healthy life-styles to attain a state of well-being. This deficiency has been attributed to various challenges in reproductive health, including early marriage, teenage pregnancy, unsafe abortion, sexually transmitted infections, and other life-threatening sexual and reproductive health issues. This study aimed to compare the reproductive health care needs of adolescent girls attending public and private schools in Ilorin metropolis, Nigeria.

**Methods:** A cross-sectional analytical study using mixed methods was conducted. Ten schools were selected with a total sample size of 538 (269 from public schools and 269 from private schools). Multistage sampling was used to select the respondents. Data were collected using structured questionnaires and key informant interviews with 50 participants. Quantitative data were analyzed using descriptive statistics, Pearson's chi-square to compare proportions, and t-tests to compare means, while qualitative data were analyzed thematically.

**Results:** A significant difference was found in the reproductive health needs of adolescent girls in public and private schools ($p = 0.001$). Private school students had greater access to reproductive health services (69.1%) compared to public school students (41.6%).

**Conclusions:** Although awareness of reproductive health services is relatively high among students in both types of schools, disparities in access exist. Private school students have greater access to resources such as menstrual hygiene products than their public school counterparts.

**Keywords:** Reproductive health; Health care needs; Adolescent girls

## INTRODUCTION

Adolescence is a phase of life stretching between childhood and adulthood. Adolescence includes elements of biological growth and major social role transitions. By definition, an adolescent is an individual between 10-19 years of age; a youth is between 15-24 years of age while young people fall between 10 and 24 years old [1-2]. The Reproductive Health of adolescents in Africa and its requirement for youth-friendly Reproductive Health Services (RHS) has been the focal point of significant policy and intervention activities since the commencement of the 21st-century [3]. Adolescent girls constitute key vulnerable

subpopulation with largely unmet sexual and reproductive health needs compared with other global regions, Sub-Saharan Africa lags in the attainment of sexual and reproductive health targets of the Sustainable Development Goals (SDGs) [4-6]. In Nigeria, many studies reported a high prevalence of non-use of condom, multiple sexual partners and other unsafe sexual practices among in-school adolescent girls. A study in the Niger-Delta region reported that 68.7% and 41.8% of the adolescents did not use condoms during their first sexual intercourse [7].

Significant number of adolescents are having no access to basic reproductive health's needs that can equip them to understand how they need to manage their reproductive life-styles and its challenges. In Nigeria for instance, adolescent girls in both public and private schools may have different reproductive health care' experiences and challenges as well as knowledge, attitudes and behavior regarding reproductive health and this may be as a result of the prevalent of distinct learning environment, non-inclusive curriculum and policy of both public and private schools. In contrary to this opinion, a study conducted in south-south part of Nigeria by oforwe et al., [8] noted that the type of schools does not affect the adolescent knowledge and attitude towards reproductive health. However, this study aimed to compared the reproductive health care needs of adolescent girls in public and private schools in Ilorin metropolis which is North Central part of Nigeria.

The objectives were to assess the awareness of reproductive health services needs among adolescent girls as well as the availability and accessibility of reproductive health services for adolescent girls in public and private schools in Ilorin, Nigeria

## METHODS

### Area of the Study

Ilorin metropolis comprises of Ilorin East, South and West. It was therefore estimated that there were ninety-nine (99) public senior secondary schools across the metropolis (35, 25 and 39 in East, South and West areas respectively) with a population of 20,329 male and 21,053 female enrollments. Also, 179 private senior secondary schools were recorded across the metropolis with 19, 99 and 61 in Ilorin East, South and West respectively and with a population of 9,580 males and 9,965 females been enrolled. [9].

**Study Design**: A school-based analytical study design using mixed methods was adopted to gather comprehensive data.

### Inclusion Criteria

Adolescent girls ages 14 to 20 years, who spent a session in the school were recruited in the quantitative part of this study. For the qualitative part, teachers who had practiced for over 12 months in the school were included. Teachers were included for the qualitative aspect because they are directly involved in adolescent education and most of the adolescent girls spent their time in schools. The teachers also act as gatekeepers for reproductive health information and can provide valuable information on reproductive health challenges within schools.

### Exclusion Criteria

Adolescent girls ages 14 to 20 years, who had cognitive impairments or language barriers were excluded in the quantitative part of this study. Teachers who had no direct involvement in the reproductive health education were excluded in the qualitative part.

### Sample size determination

Using Bolarinwa's sample size methodology, [10], a sample size of 269 is required in each of the public and private schools, and a prevalence of risky sexual behavior at 80% for state-owned schools and 69% for private schools [11], a standard

normal deviate of 1.96 and a 10% non-response rate. For the qualitative part, sample size was based on data saturation

**Sampling Technique**: For the quantitative part, a multistage sampling technique was used for the selection of respondents recruited for the study.

Stage 1: selection of schools

A list of all secondary schools in Ilorin was gotten from the Kwara State Ministry of Education, Ilorin. The schools were stratified into two strata, namely: Public and Private schools. Ten schools were chosen using a simple random by balloting without replacement from both public and private schools.

Stage 2: Allocation of sample size to the school

Proportional allocation was used using the formula

$$n = \frac{nNh}{N}$$

n= calculated sample size, Nh= Total population of girl students, N= Total population of all the schools.

Stage 3: selection of respondents in each of the school

Systematic sampling technique was adopted to recruit respondents in each of the schools using the school registers as a sampling frame. The sampling interval was determined by dividing the total number of students in the register by the allocated proportion for the school. Respondents were selected systematically, starting with a random selection, then selecting every ninth student based on the calculated interval, until the desired sample size was reached for the school.

Eligible teachers were identified through the school records and verified by the vice principal academic. From this pool a random sampling technique was used to select participant representing 10% of the calculated sample size (538). The selected respondents met the inclusion criteria.

**Research instruments**

***Questionnaire***

The quantitative Data were collected through researcher-designed questionnaire and adapted online extract of validated questionnaires [12-13]. The quantitative tool consists of four section which includes: socio-demographic, awareness/ knowledge, access/utilization and challenges

***Key Informant Interview (KII)***

The qualitative data was researcher-designed questionnaire collected through KIIs. This contained open-ended questionnaire.

***Validity and Reliability of the Instruments***

To ensure the validity and reliability of the research instruments, the following steps were taken: The questionnaire and KII guides were reviewed by the experts who provided feedback and suggestions for improvement. The feedback was incorporated into the instruments, and the final form of the questionnaire and KII guides was considered to have face and content validity. A pretest was done among Adolescent girls of Royal Crescent School, Ilorin who shared similar characteristics with the study population. During the pretest, some questions were considered inappropriate, and these questions were changed and modified. Examples of changes and modified questions are: in the section 3 knowledge on STI, question 1 read “are you sexually active” it was changed to ‘Sexual activity before marriage is unhealthy’. In that same section, question 2 asked about “how many sexual partners do you have” changed to “Having multiple partners is unhealthy”. The data collected for the instrument’s reliability testing were analyzed using Cronbach alpha through SPSS Software and the result shows that 0.82 which can be interpret as perfect as it exceeds the accepted assumption of 0.70. Hence, this student instrument which is questionnaire was reliable.

**Procedure for Data Collection**

This study instrument (questionnaire) was distributed to the respondents to collect quantitative data after ensured that the respondents have fully informed and understand the purpose of this study. The data collection lasted for four weeks and three days and it took 15-25 minutes of each respondent's time to complete the filling of the questionnaire. More so, data were collected in a confidential setting whereby no stakeholders such as teacher, parents among others can influence the respondents' decision. The respondents were seated separately to prevent friendly or group discussions in the process of data collection. The submitted filled questionnaires were screened to ensure proper filling.

On the other hand, qualitative data were collected through Key Informant Interview (KII) which was conducted by this study researcher and trained and experienced research assistants. Fifty (50) participants were interviewed and each interview session was recorded with a voice recorder and a designated note taker capturing the key points. While, collected qualitative data were analyzed using thematic analysis, both qualitative and quantitative results were incorporated for the interpretation and presentation of the findings.

**Scoring of Questionnaire**

The section which has reproductive health needs had 62 questions. Each negative response attracted zero point while positive response scored 1 point. The cut off was determined using the mean score of participants. The summation of the response was calculated and the mean (43) was calculated using SPSS, therefore scores that were less than 43 were termed as inadequate while scores 43 and above were regarded as adequate. The level of awareness was also assessed with 10 questions, making a total score of 10. So positive response was scored 1 while incorrect or negative response was scored as 0 and the score were grouped into four level as poor (0-2), fair (3-4), good (5-7) and excellent (8-10).

**Ethical Consideration**

Ethical approval was gotten from the University of Ilorin Ethical Review Unit with approval number UERC/ASN/2024/2774. Furthermore, written informed consent was obtained from the selected adolescent girl's parents/ guardian before the administration of the questionnaire. A written and verbally informed assent was obtained from the eligible adolescent girls

## STATISTICAL ANALYSIS

The quantitative data were analyzed using IBM SPSS (version 27). The descriptive statistics were presented as frequencies and percentages. The Pearson's chi-square was employed to compare the differences between the proportion for two groups while t- test was used to compare the means difference of the two groups. The qualitative data was analyzed by thematic content methods.

## RESULTS

Most of respondents were in the ages of 14-16 years of age (61.7% in public schools vs 92.2% in private schools). Islam is the dominant religion in both group (93.3% vs 84.0%). Respondents were in SSS1 and Yoruba was the predominant ethnicity. Public school students have parents with Primary school. (Table 1).

Table 2 showed Majority of students aware of reproductive health needs. Private schools have a slightly higher awareness rate (81.4%). Both reported that class room section is source of their awareness with private schools' students. Small percentage of students in public schools (16.0%) received RHS compared to high percentage in private schools (81.7%).

Figure 1 showed that (69.1%) of private school students had adequate knowledge of reproductive health services.

Table 3 showed that there is statistically significant difference in the adequacy of reproductive health knowledge needs of adolescent girls between public schools and private schools with *p-value = .001*.

Table 4 revealed that there is statistically significant difference between public and private school regarding their reproductive health services needs being met with *p-value=0.001*.

The table 5 presented that age and type of school attended has a significant effect on the adequacy of Reproductive health knowledge.

**Qualitative Findings**

This section highlights further findings elicited from key informant interview among teachers. The thematic insight illuminated their perception, availability and functioning of RHS in school, factors and strategies for improving availability and functioning of RHS in schools.

**A) Perception of Teachers Regards Reproductive Health Needs of Adolescent Girls**

The teachers subscribed that adolescent girls lack full awareness of their reproductive health needs as a result of the sensitivity of the topic and parents who should discuss the topic related to sex matters at home are reluctance to do so. These teachers also mentioned the important of addressing the key reproductive health topics with many of them stated sex education, menstrual health and others.

"Parents neglect reproductive health discussions, leaving the girls vulnerable to misinformation and risky behavior when they seek these discussions elsewhere. Public school teacher."

"It is very important for parents to be involved in reproductive health discussion so that the girls will not go astray. Public school teacher"

Others teachers mentioned the topics they felt were needed for adolescent girls to understand such as healthy relationship with opposite gender, mental health and others.

The teachers also discussed the challenges in establishing a safe space for the girls to discuss sensitive topics especially in public schools. As one teacher stated "few girls feel comfortable discussing RH issues with me, some even ask friends to get pads on their behalf "

**b) Availability and Accessibility of RHS**

The teachers reported on the services available which differ significantly between public school and private schools. Public schools reported lack resources such as pads, counselling, school clinic which can hinder the girls access to basic RHS while private schools have most of the resources, including school clinic, school nurse and others.

"we usually send our girls home when they get stained or experiencing menstrual cramps and We have even requested the government allow us to convert a class room into school clinic, up till now none of our request have been granted" (public school teacher)

In contrast, private school teachers shared that "we have a school clinic, school nurse, pads, drugs and affiliated hospital for emergency cases".

**C) Factors Influencing Access to RHS**

Teachers named factors that influence adolescent girls access to RHS. These includes Effective guidance and counseling support, parental attitudes, socio-status of the parents, cultural beliefs and awareness levels.

"parental attitude and education of the parents greatly influence whether adolescent girls seek reproductive health services or not" (private school teacher)

stigma and lack of privacy discourage many girls from accessing RHS, we teachers can also be a contribute to why these girls are not using these services" (public school teacher)

"awareness campaign should be on all socio-media about RHS since the girls have access to phones but the parent just needs to monitor the activities through the phones
Not all adolescent girls use pad because they are expensive, they use clothes, tissue and other materials which may not be hygienic" (public school teacher).

**d) Strategies for Improving Availability and Accessibility of RHS in School**

Teachers recommended strategies to improve the availability and accessibility of RHS. A key suggestion was on integrating of reproductive health education in to school curriculum, engaging the community and improving resources within schools.

"health education should be age-appropriate and part of the curriculum to ensure all students receive accurate information" (public school teacher).

"Public enlightenment, Schools organizing health programs on reproductive health with parents and Produce a magazine to assist people for enlightenment" (private school teacher).

Engaging parents and community members in awareness programs about reproductive health will help to promote a supportive environment. *"*School should organize health programs on reproductive health with *parents"* (private school teacher)

Teachers also suggested that sanitary products and other resources should be provided in schools. "Pads should be available in the school and local health centers so that the girls can have easy access to it" (public school teacher)

**Table 1:** Socio-Demographic Characteristics of Respondents

| variable | Total (n=538) | Public (n=269) | Private (n=269) | $\chi^2$ | *p-value* |
|---|---|---|---|---|---|
| **Age (years)** | **n (%)** | **n (%)** | **n (%)** | **70.701** | **0.001*** |
| **14-<17** | **414(77)** | **166 (61.7)** | **248 (92.2)** | | |
| **17-<19** | **113 (21)** | **92 (34.2)** | **21 (7.8)** | | |
| **≥19** | **11 (2.0)** | **11 (4.1)** | **0 (0.0)** | | |
| **Religion** | | | | | |
| **Islam** | **477 (88.7)** | **251 (93.3)** | **226 (84.0)** | **13.577** | **0.001*** |
| **Christianity** | **60 (11.2)** | **17 (6.3)** | **43 (16.0)** | | |
| **Traditional** | **1 (0.2)** | **1 (0.4)** | **0 (0.0)** | | |
| **Class level** | | | | | |
| **Senior secondary school (SSS Year1)** | **235 (43.7)** | **95 (35.3)** | **140 (52.0)** | **16.608** | **0.001*** |
| **SSS Year 2** | **174 (32.3)** | **95 (35.3)** | **79 (29.4)** | | |
| **SSS Year3** | **129 (24.0)** | **79 (29.4)** | **50 (18.6)** | | |
| **Ethnicity** | | | | | |
| **Yoruba** | **437 (81.2)** | **227 (84.4)** | **210 (78.1)** | **13.916** | **0.016*** |
| **Hausa** | **28 (5.2)** | **11 (4.1)** | **17 (6.3)** | | |
| **Fulani** | **31 (5.8)** | **18 (6.7)** | **13 (4.8)** | | |
| **Nupe** | **17 (3.2)** | **8 (3.0)** | **9 (3.3)** | | |
| **Igbo** | **11 (2.0)** | **4 (1.5)** | **7 (2.6)** | | |

| | | | | | |
|---|---|---|---|---|---|
| **Others** | **14 (2.6)** | **1 (0.4)** | **13 (4.8)** | | |
| **Parents' level of education** | | | | | |
| **No formal education** | **52 (9.7)** | **38 (14.1)** | **14 (5.2)** | **121.611** | **0.001*** |
| **Primary school** | **177 (32.9)** | **119 (44.2)** | **58 (21.6)** | | |
| **Secondary school** | **174 (32.3)** | **86 (32.0)** | **88 (32.7)** | | |
| **Graduate** | **107 (19.9)** | **6 (2.2)** | **101 (37.5)** | | |
| **Post graduate** | **28 (5.2)** | **20 (7.4)** | **8 (3.0)** | | |

**Table 2:** Awareness of Reproductive Health Service Needs

| Variable | Total n = 538 (%) | Public n = 269 (%) | Private n = 269 (%) | $\chi^2$ | *p-value* |
|---|---|---|---|---|---|
| **Awareness of RHS** | | | | | |
| **Yes** | **424 (78.8)** | **205 (76.2)** | **219 (81.4)** | **2.182** | **0.140** |
| **No** | **114 (21.2)** | **64 (23.8)** | **50 (18.6)** | | |
| **Level of Awareness** | **n = 424(%)** | **n=205 (%)** | **n =219 (%)** | | |
| **Poor** | **31 (7.3)** | **19 (9.3)** | **12 (5.5)** | **10.006** | **0.019*** |
| **Fair** | **70 (16.5)** | **24 (11.7)** | **46 (21.0)** | | |
| **Good** | **187 (44.1)** | **100 (48.8)** | **87 (39.7)** | | |
| **Excellent** | **136 (32.1)** | **62 (30.2)** | **74 (33.8)** | | |
| **Source of Awareness** | | | | | |
| **Classroom sessions** | **289 (68.2)** | **141 (68.8)** | **148 (67.6)** | **6.037** | **0.110** |
| **Workshop/Seminar** | **72 (17.0)** | **39 (19.0)** | **33 (15.0)** | | |
| **Digital platforms** | **51 (12.0)** | **23 (11.2)** | **28 (12.8)** | | |
| **Pamphlets** | **12 (2.8)** | **2 (1.0)** | **10 (4.6)** | | |
| **Most important RHS need** | | | | | |
| **Sexual education & counseling** | **247 (58.3)** | **117 (57.0)** | **130 (59.4)** | **35.657** | **0.001*** |
| **Contraception** | **48 (11.3)** | **20 (9.8)** | **28 (12.8)** | | |
| **STI screening & treatment** | **50 (11.8)** | **31 (15.1)** | **19 (8.7)** | | |
| **Prenatal/postnatal care** | **10 (2.3)** | **10 (4.9)** | **0 (0.0)** | | |
| **Abortion services** | **13 (3.1)** | **7 (3.4)** | **6 (2.7)** | | |
| **Mental health services** | **56 (13.2)** | **20 (9.8)** | **36 (16.4)** | | |
| **Received RHS in school** | | | | | |
| **Yes** | **212 (50)** | **33 (16.0)** | **179 (81.7)** | **179.860** | **0.001*** |
| **No** | **212 (50)** | **172 (84.0)** | **40 (19.3)** | | |

**Table 3:** Chi-square analysis of reproductive health knowledge by school type

| School type | Adequate n (%) | Inadequate n (%) | $\chi^2$ | *p-value* |
|---|---|---|---|---|
| Public school | 112(41.6%) | 157(58.4%) | 41.193 | 0.001* |
| Private school | 186(69.1%) | 83(30.9%) | | |
| Total | 298(55.4%) | 240(44.6%) | | |

**Table 4:** Independent t-test results comparing mean scores between public and private schools

| Statistic | Public School (n = 269) | Private School (n = 269) | t-value | *p-value* | 95% CI for Mean Difference |
|---|---|---|---|---|---|
| Mean | 40.83 | 45.98 | -8.523 | 0.001* | [0.194, 0.356] |
| Standard Deviation | 6.97 | 7.04 | | | |
| Standard Error | 0.42 | 0.43 | | | |

**Table 5:** logistics regression analysis of factors associated with Reproductive health knowledge

| Variable | B | OR | *p-value* |
|---|---|---|---|
| Age | 0.500 | 1.649 | 0.041* |
| Types of school | -1.050 | 0.350 | 0.000* |
| Class | -0.192 | 0.825 | 0.134 |
| Parent's level of education | -0.028 | 0.973 | 0.767 |
| Religion | 0.103 | 1.109 | 0.721 |
| Tribe | 0.051 | 1.052 | 0.532 |

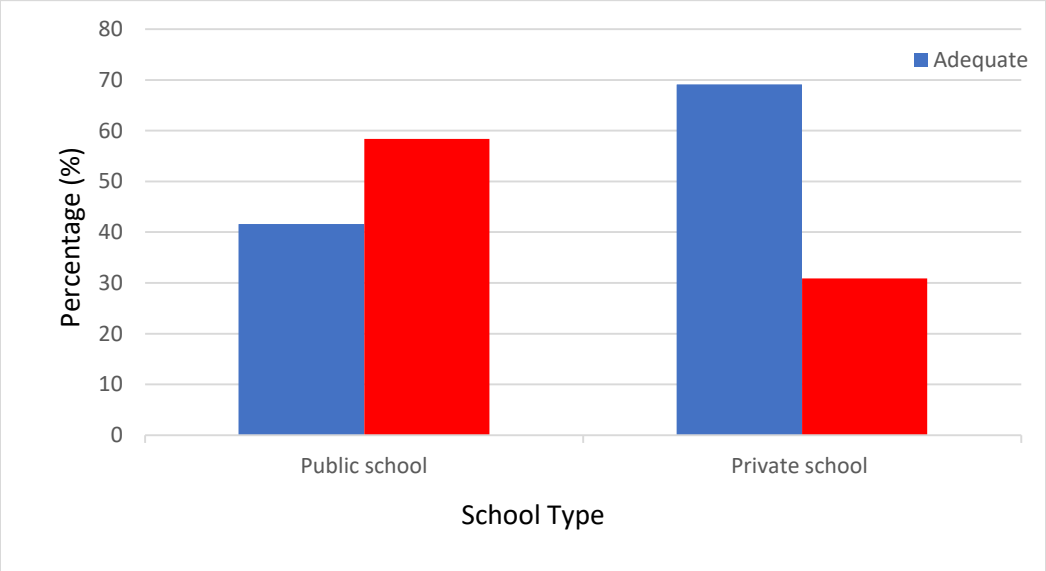


**Figure 1:** Adequacy of Reproductive Health Knowledge by School Type

## DISCUSSION

The study found that most adolescent respondents were aged 14-16 years corroborating similar studies [14-15], where both findings indicates 14-16 years as dominant age range of adolescents. However, the age distribution between public and private school students was a statistically significant difference with private school having a higher proportion of younger students. Although one study reported slightly older ages with respondents

who fall between 17 to 19 years of age [16] which may reflect different in demographic trends in their study population. Muslim-respondents in this study showed the largely Muslim population and religion makeup of Ilorin and a statistically significant difference was observed between the schools. This contrast to other studies where Muslims were smaller in number [17 -18]. Additionally, SSS1 students comprised the largest group. This finding corroborates the findings of Fawole et al., [19], Saka et al., [20] and Gabriel-Job & Okagua, [21]. A statistically significant difference was found between school types. Furthermore, the finding also showed a significant difference in parent's education levels with private school students have parents who were graduates (37.5%) compared to public students (2.2%). Conversely, public school students had a higher percentage of parents with only primary education (44.2%). This align with Fawole et al., [19] who reported that private school parents had higher educational attainment likely due to affordability and perceptions of private education as a marker of social status.

This present study found out that majority of the students were aware of their reproductive health service needs (public schools 76.2%) and (private schools 81.4%). However, there is no significant difference between the level of awareness and school type ($X^2$=2,182, *p=0.140*). These findings are in support with the finding of Olaleye et al., [22] which revealed that 72.4% of adolescents were conscious and have knowledge about reproductive health services. Similarly, a study which was conducted in Ghana revealed a high level of awareness of reproductive health services [23]. But contrarily to the above findings, studies conducted by Rafael et al., [24] and Ilori et al., [25] revealed that there was a low level of awareness of reproductive health services among adolescents. Furthermore, the low level of awareness of reproductive health services was also reported in Southern Western part of Nigeria in 2009 whereby adolescent reproductive health services was being recommended and advocated to be incorporated into existing Health services [26]. In this regard, the high level of awareness of reproductive health services as this study revealed may be a result of various and many implemented school based reproductive health programs and incorporation of adolescent reproductive health services into the primary healthcare centers in Nigeria. More so, this study also revealed that there is a significant difference between the level of awareness and school type with private school students had 21% of fair level of awareness compare to public school students.

Contrary to findings by Paudel et al., [27] in Nepal where parents and internet were the main sources of adolescent RHS information, this study revealed that class room sessions were the main source of awareness for both schools (69%, 68%). No significant difference was seen in the sources of RHS information between the two school types. The difference may be attributed to regional differences and cultural attitudes towards reproductive health discussion as reproductive health discussions are taboos in most of the homes in study site. This study was different from ilori et al., [25] where mass media and health care providers were the common sources, this might be because classroom session provides a structured and accessible place for delivering reproductive health information to adolescent and also a place where students can ask questions openly and engaged with reproductive health material which is less intimidating than asking the information from parents at home. This finding consistent with teachers' responses that class room was the only available place

where sexual health topics were discussed particularly during register marking.

In terms of RHS needs, students identified sexual education and counseling as the most important aspect of RHS (public 57%, private 59.4%). A statistically significant difference was found in the perception of RHS needs between public and private school students. These differences suggest that private school students may have greater awareness or a different prioritization of RHS compared to their public school counterparts. One of the most significant findings was the disparity in access to RHS within schools. A highly significant difference was found in the RHS (Menstrual material, contraceptive and other services) between public and private school students (*p=0.000*). while 81.7% of private school students reported receiving RHS materials only 16% of public-school students had access to these services. This significant difference revealed the inequality in services distribution and accessibility between the school types which may be influenced by funding, school policies or parental expectations on Reproductive Health education.

It was revealed by school Teachers through the interview that comprehensive sexual and reproductive health education are fundamental in improving adolescent girl's reproductive health needs. This finding is supported by UNESCO [28] which revealed that comprehensive sexual education plays a significant role in equipping young girls with effective reproductive health's knowledge for the purpose of decreasing risk behaviors such as unprotected sex, menstruation, among other. Similarly, it was found in a study conducted by Achora et al., [29] that sexual education not only prevent unwanted pregnancies but also reduce school dropout rates. Additionally, Maqbool et al., [30] noted that sexual education empowers adolescents' girls by helping them recognize abusive persons and relationship.

The inferential statistical analysis using independent t-test and chi-square method revealed that there is a significant difference in the reproductive health needs of adolescent girls in relation to school type (public and private schools) with *p-value= 0.001*. This shows that private school students have adequate reproductive health knowledge compare to public school students. This finding can be supported by the finding of Sharma et al., [31] which found that majority of girls from private school had sufficient knowledge of reproductive health specifically on process of menstruation compared to girls from government schools. Similarly, the study of Prashant et al., [32] also supported and revealed that there is a significant difference between private and public-school girls' knowledge of reproductive health and further revealed that private school girls use menstrual materials compared to public school girls. Contrarily, the study conducted by Oforwe et al., [8] revealed that the type of school (public and private) do not significantly affect adolescents' attitude towards use of contraceptive i.e the type of school does not significantly influence the knowledge of adolescent girls toward reproductive health.

This difference may be due to the knowledge imparted by teachers in respective schools and school curriculum for instance academic achievement of students in private school are more superior when compared to students in public school [33]. Furthermore, the differences may be as a result of private school autonomy to implement any program without seeking approval from the government. Unlike public school for instance one of the participants (Teacher) noted that approval letter to convert of the unused classrooms into school clinic have been written to the

government several time but has yet to get response to their request. Besides, some private school have funding and partner organizations which allow them to invest in reproductive health services education and sensitization by bringing in health professionals to discuss sexual and reproductive health topics. Also, the small classes in private school may also allow open discussion on sexual health among girls. This supportive setting contributes to effective engagement with sensitive topics such as sexual relationship.

Additionally, the logistics regression analysis revealed that age and type of school significantly influence reproductive health knowledge and services. The analysis further explained that age has a positive effect (B=0.500, OR=1.649, *p=0.041*) on reproductive health knowledge and services by revealing that Older adolescent girls are 1.65 times more likely to have adequate knowledge and access while Public school students are 65% less likely compared to private school students to have reproductive health knowledge and services. Therefore, both religion, class, tribe and parental education do not significantly influence reproductive health knowledge and service in this study.

## CONCLUSIONS

This study compared the reproductive health needs of adolescent girls in public and private schools. The findings showed that while their awareness of RHS is relatively high in both school, there still exist disparities in access of these services. The private school students have a greater access to RHS including menstrual hygiene products compared to their counterparts in public school. The study also revealed that parental level of education, religion, tribe and class does not predict the adequacy of reproductive health knowledge among the adolescents in both schools. All adolescent girls regardless of their school type and age should receive adequate reproductive health knowledge and services.

## RECOMMENDATIONS

We recommend integrating age-appropriate reproductive health education into school curriculum for both schools. Also, Provision of menstrual hygiene materials and basic reproductive health services within the public schools, strengthening mother to girls-child communication on reproductive health issues, and establishing school clinic and counseling centers in schools particularly in public schools

**Authors contribution**

**Kudirat Omolabake Yusuf:** Responsible for the Conception, Design, Literature Search, Data Collection and Analysis, Project Coordination, Manuscript Preparation and Editing. **Muktar Alaba Abdulraheem:** Literature search, Data Collection. **Ridwan Adewala Oyeniyi:** Data collection, Data Analysis. **Maryam Okeshola Okeniyi:** Methodology, Data collection. **Fatimah Ajoke Sanni:** Data collection. **Sulyam Abdulfatahi Odore:** Manuscript writing and Editing. **Bilqis Wuraola Alatishe-muhammad:** supervision, Data Analysis, Manuscript Review. **Oladimeji Akeem Bolarinwa:** Supervision, manuscript review**.** All the authors have read and approved the final version of the manuscript.

**Conflict of Interests**

None

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None

**List of Abbreviation**

RH: Reproductive Health
RHS: Reproductive Health Services
STIs: Sexual Transmitted Infections
FGD: Focus Group Discussion
KII: Key Informant Interview
SPSS: Statistical Package for Social Sciences
SDG: Sustainable Development Goals
SSS: Senior Secondary

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