

## Gynecology &amp; Reproductive Health

## Accessibility and Utilization of Adolescent Sexual and Reproductive Health Services Among Undergraduate Students

Chibueze Uchenna Agwuncha, RN, BNSc<sup>1-2</sup> and Margaret Omowaleola Akinwaare, RN, RM, RPHN, PhD\*<sup>1</sup>Department of Nursing, University of Ibadan, Nigeria.<sup>2</sup>Slum and Rural Health Initiative Network, Nigeria.**\*Correspondence:**

Margaret O. Akinwaare, Department of Nursing, College of Medicine, University of Ibadan, Ibadan, Nigeria.

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## ABSTRACT

**Background:** Young people's reproductive health services have been largely neglected in the past, leaving them vulnerable to reproductive health problems like Sexually Transmitted Infections (STIs), unintended pregnancy, unsafe abortion and other harmful practices. Although studies have been done on Adolescent Sexual and Reproductive Health, a persistence of reproductive health problems among undergraduates in Nigeria, especially in the Universities necessitated this study.

**Methods:** The study utilized a descriptive cross-sectional design involving 357 students of randomly selected faculties in the university of Ibadan. A self-administered semi-structured questionnaire was used to assess the accessibility and utilization of Sexual and Reproductive Health Services (SRHSs) among the students. Statistical analysis of data was done using IBM-SPSS version 21.0 software, associations and differences were then tested using Pearson's correlation test (with significance set at  $P \leq 0.05$ ), while descriptive data were presented in frequency & percentages.

**Results:** The study found that 70.8% of the respondents have high access to SRHSs, while more than 67.3% under-utilized those services. Attitudes of staff in the clinic, religion, cultural practices, longer waiting periods, and lack of privacy were all identified as factors that negatively affect the accessibility and utilization of SRHS. Gender ( $p = .012$ ), and Accessibility ( $p = .000$ ) were found to be significantly associated with Utilization of SRHSs.

**Conclusion:** Despite high accessibility, most students still do not utilize available SRHSs. To ensure that young people have access to sexual and reproductive health care in all nursing practice sites, nurses need to gain the knowledge and hone the skills required to deliver evidence based counseling and services to adolescents.

**Keywords**

Adolescents, Sexual Health, Reproductive Health, Utilization, Young Adults.

Good sexual and reproductive health has been defined as not just the absence of disease but total wellbeing in physical, mental and social matters concerned with the reproductive system [2].

**Introduction**

The adulthood is filled with opportunities and challenges. Therefore, as humans grow from childhood through adolescents into different forms of adulthood, it is important that everyone has access to necessary information and skills to utilize those opportunities as well as face the challenges of the adulthood [1].

Adolescents are heterogeneous group of individuals with diverse needs and challenges [1]. These needs and challenges can be attributed to the series of changes they continually undergo. Studies however, have shown that they are most times, not prepared well enough for these changes. For instance, a significant number of girls in many countries have insufficient knowledge

about menstruation and this breeds fear and anxiety, ultimately leaving them unprepared when they start menstruating [3]. Also, a lot of knowledge gaps have been identified by researchers amongst youths, especially in developing countries about issues relating to accessibility as well as correct use of modern contraceptives [4]. Furthermore, according to the United Nations, only one third of young men and women aged 15-24 years had comprehensive knowledge on how to prevent HIV in a survey conducted in 37 countries between 2011-2016 [2].

According to the World Health Organization's [1] recommendations on adolescent sexual and reproductive health and rights, adolescents and young people require a range of safe, affordable, and scientifically accurate Sexual and Reproductive Health (SRH) information and services, including modern contraception, sensitive and nonjudgmental counseling, pre- and post-natal care and delivery, safe abortion and post-abortion services and care, and prevention and treatment of sexually transmitted infections. These services are not just to be made available, but they must be acceptable and the delivery must be made in a manner and environment that promotes autonomy, privacy and self-confidence [1].

Many sexual and reproductive health problems have been linked to lack of accessibility SRHS, and this is a major contributor to the low level of utilization of those services especially in low and middle-income countries [5]. Several Nigerian Studies [6,7,8] have assessed the accessibility and utilization of SRH services, and one of the consistent findings is that a majority of adolescents do not utilize SRH services. Two similar studies [9, 10] have both identified personal, socioeconomic, and institutional factors as the determinants of utilization of reproductive health services. A more recent study [11] also validated all these findings where it was found that a vast majority (63.4%) of students in selected tertiary institutions in Ogun State, Nigeria, have never visited a health facility in their locality for reproductive health service (s) and education (45.4%), were identified to be some of the factors mostly influencing access to SRH information.

Despite local and international efforts to increase the availability of SRH services in Nigeria, there is still persistent low levels of accessibility and utilization amongst young adult population. Some socio-demographic variables like gender, age and sociocultural norms have been identified in literature as major factors that affect accessibility and utilization of those services. Hence this study assessed the level of accessibility and utilization of adolescent sexual and reproductive health services amongst students. The study also explored the possible factors affecting the Utilization of these services amongst these students.

## Methodology

### Study Area

This study was conducted among Undergraduate Students in University of Ibadan. University of Ibadan is the first and best university and was founded on 17 November 1948. The institution

is a federal tertiary institution, consisting of thirteen faculties which include Clinical sciences, Dentistry, Public health, Basic medical sciences, Arts, Education, Veterinary medicine, Sciences, Law, Pharmacy, Social sciences, Technology and Agriculture. However, faculties with less than 300 students were excluded. The study population comprised of male and female undergraduates randomly selected from the included faculties of the university.

### Study Design

A descriptive cross-sectional study was utilized to assess the accessibility and utilization of sexual and reproductive health services among students of the university of Ibadan.

### Sample Size Determination

The sample size for this study was then determined using Yamane 1967 sample size determination formula below:

$$n = \frac{N}{1 + N(e)^2}$$

Where

N=total number of students in the target faculties =3,309

n=required sample size

e= degree of error tolerance (5%)

Solving the formular;

$$n = \frac{3,309}{\{1 + 3,309 (0.05 \times 0.05)\}}$$

$$n = \frac{3,309}{\{1 + 8.27\}}$$

n= 396.9

Hence, the sample size for this study was 397.

### Sampling Techniques

Five faculties (Arts, Clinical Sciences, Sciences, Social Sciences, Veterinary Medicine) were randomly selected out of the 13 faculties in the university. The sample size (357) was proportionally allocated. Out of the five randomly selected faculties, four departments were randomly selected from the faculty of arts, two departments were randomly selected from the department of clinical sciences, four departments were randomly from the faculty of sciences and two departments from the faculty of social sciences. Faculty of veterinary medicine consists of a department.

Department of classics, communication and language arts, European studies and history were selected from the faculty of arts. Department of Medicine & surgery and physiotherapy were selected from the faculty of clinical sciences. Department of Anthropology, Microbiology, Physics and Zoology were selected from the faculty of sciences. Department of geography and psychology were selected from the department of social sciences.

Each department was already in strata of levels. Participants in various levels were met in their respective classes and stratified sampling was used to determine who participated in the study.

## Data Collection Instruments

A self-administered questionnaire was used after a vast literature review.

## Methods of Data Collection

Official letter of introduction and permission to collect data was obtained from the Head of Nursing department, University of Ibadan. Ethical permission was obtained from the UI/UCH.

Health Ethical Review Committee (ethical approval number: NHREC/05/01/2008) in order to conduct this study. Data collection was then carried out by the researcher who would administer questionnaires to his respondents in print. Filling of the questionnaire was done within 5-10 minutes.

## Data Analysis

In this study, the data analysis tools that was adopted were descriptive and inferential statistics. Descriptive statistics of frequency distribution mean and standard deviation was used to analyze the data and provide answers to the research questions. Simple regression analysis was used to test the hypotheses. All the hypotheses were tested at 5% level of significance ( $\alpha = 0.05$ ) using the SPSS 21 version software.

## Results

### Socio-demographic characteristics of respondents

A total number of three hundred and ninety-seven (397) questionnaires were administered and completely retrieved and analyzed for this study. Findings as presented on table 1 show the demographic characteristics of respondents in this study, with regards to their age, gender, faculty, level, residential area, religion, parents and guardians' occupation and average monthly income in Naira. 49.9% of the respondents are between 15-20 years, 45.6% are between 21-25 years, 3.3% are within 26-30 years, while 1.3% are within age group below 15 years. The mean age of the respondents is within the age group 21-25 years. The table further classifies respondents by their gender, 69.5% of the respondents are female while 30.5% of the respondents are male. It implies that most of the respondents are female.

**Table 1:** Socio-demographic characteristics of respondents.

Variable	Frequency	Percentage
Age		
Below 15 years	5	1.3
15-20 years	198	49.9
21-25 years	181	45.6
26-30 years	13	3.3
Gender		
Male	121	30.5
Female	276	69.5
Faculty		
Arts	79	19.9
Clinical Sciences	129	32.5
Sciences	70	17.6
Social sciences	62	15.6
Veterinary medicine	57	14.4

Level		
100 Level	143	36.0
200 Level	90	22.7
300 Level	67	16.9
400 Level	81	20.4
500 Level	16	4.0
Residential area when school is in session.		
School campus	292	73.6
Off-campus	92	23.2
Parent's house	13	3.3
Religion		
Christianity	330	83.1
Islam	67	16.9
Parents or guardian's occupation		
Unemployed	10	2.5
Self-employed	156	39.3
Employed	231	58.2
Average monthly income in Naira.		
Below #20,000	92	23.2
#20,000-#100,000	227	57.2
Above #100,000	78	19.6

### Accessibility to adolescent reproductive health services

Findings as presented on table 2 show the extent to which students have access to reproductive health services. 61.0% of the respondents stated that they don't know any specialized center that provides adolescents sexual and reproductive health services in University of Ibadan while 39.0% stated otherwise. It implies that majority of the respondents do not know any specialized center that provides adolescents' sexual and reproductive health services in university of Ibadan.

**Table 2:** Accessibility to adolescent reproductive health services.

Accessibility to adolescent reproductive health services.	Frequency	Percentage
Do you know any specialized center that provides adolescents' sexual and reproductive health services in University of Ibadan?		
Yes	155	39.0
No	242	61.0
How far is the school clinic from where you stay?		
Short walking distance	218	54.9
#100 for transport	161	40.6
#200 for transport	12	3.0
Over #200 for transport	6	1.5
It is always difficult to obtain articles like condom and other contraceptives in and around the school		
Yes	157	39.5
No	240	60.5
It is always difficult to obtain information about sexual issues from Nurses and Doctors in the school clinics.		
Yes	118	29.7
No	279	70.3
Are you aware of any youth friendly center in the university campus?		
Yes	241	60.7
No	156	39.3

Summarily, findings presented on table 3 reveal the level of accessibility of students to reproductive health services. It showed that majority of respondents had high level of accessibility

to reproductive health services. The mean (7.20) of the total responses of the respondents was used to group the response of each respondent into Low and High level of accessibility. Any respondent with total sum of responses less than the mean (7.20) has Low level of accessibility while those with total responses greater than the mean have High level of accessibility.

**Table 3:** Summary of Accessibility levels amongst respondents.

	Frequency	Percentage (%)
Low level of accessibility	116	29.2
High level of accessibility	281	70.8
<b>Total</b>	<b>397</b>	<b>100.0</b>

### Utilization of adolescent SRH services.

Findings as presented on table 4 reveal the level of the utilization of reproductive health services by undergraduate. It was revealed that 38.8% of the respondents had never received counselling on prevention of pregnancy, STIs, 42.3% sometimes receive counselling on prevention of pregnancy STI, 12.8% often receive counselling on prevention of pregnancy STIs while 6.0% always receive counselling on prevention of pregnancy STIs. 63.2% of the respondents had never done screening for STIs and HIV, 29.2% sometimes do screening for STIs and HIV, 12.8% often do screening for STIs and HIV while 2.5% always do screening for STIs and HIV. Also, 85.4% of the respondents had never receive treatment for STIs including HIV, 11.1% sometimes receive treatment for STIs including HIV, 5.0% often receive treatment for STIs including HIV while 0.5% always receive treatment for STIs including HIV. 80.9% of the respondents had never engage in acquisition of condoms for prevention of STIs and unwanted pregnancy, 10.3% sometimes engage in acquisition of condoms for prevention of STIs and unwanted pregnancy, 5.3% often engage in acquisition of condoms for prevention of STIs and unwanted pregnancy while 3.5% always engage in the acquisition of condoms for prevention of STIs and unwanted pregnancy. Finally, 89.9% of the respondents never had antenatal, intrapartum and postnatal care, 5.5% sometimes had antenatal, intrapartum and postnatal care, 3.5% often had antenatal, intrapartum and postnatal care while 1.0% always had antenatal, intrapartum and postnatal care.

**Table 4:** Level of utilization of reproductive health services by undergraduates.

Utilization of adolescent SRH services instructions	Never (%)	Sometimes (%)	Often (%)	Always (%)
Counselling on prevention of pregnancy, STI	154 (38.8%)	168 (42.3%)	51 (12.8%)	24 (6.0%)
Screening for STIs and HIV	251 (63.2%)	116 (29.2%)	20 (5.0%)	10 (2.5%)
Treatment for STIs including HIV	339 (85.4%)	44 (11.1%)	12 (3.0%)	2 (0.5%)
Acquisition of condoms for prevention of STIs and unwanted pregnancy	321 (80.9%)	41 (10.3%)	21 (5.3%)	14 (3.5%)
Antenatal, intrapartum and postnatal care	357 (89.9%)	22 (5.5%)	14 (3.5%)	4 (1.0%)

The summary of the level of utilization (Table 5) of reproductive health services among undergraduates. It showed that majority of respondents under-utilized reproductive health services. The mean (6.99) of the total responses of the respondents was used to group the response of each respondent into Under and Highly Utilized. Any respondent with total sum of responses less than the mean (6.99) highly utilized reproductive health service while those with total responses greater than the mean under-utilized reproductive health services.

**Table 5:** Summary of Utilization of SRH services.

	Frequency	Percentage (%)
Highly Utilized	130	32.7
Under Utilized	267	67.3
<b>Total</b>	<b>397</b>	<b>100.0</b>

### Factors affecting the accessibility and utilization of adolescents' SRH services.

The factors influencing the utilization of reproductive health services among undergraduates are as presented on table 6. The major factors influencing the utilization of reproductive health services are attitude of staff in the clinic (mean = 2.68), religious practices (mean = 2.52), cultural practices (mean = 2.50), lack of privacy/confidentiality (mean = 2.48), waiting period (mean = 2.44) persuasion from parents (mean = 2.36), persuasion from friends (mean = 2.11), waste of time (mean = 2.10), service too expensive (mean = 2.09) and hatred for the services (mean = 2.33).

### Hypotheses Testing

#### Relationship between Gender of respondents and level of utilization of adolescents' SRH services

The relationship between gender of respondents and level of utilization of adolescents' SRH services is as presented on table 7. The findings show that there is a negative and weak significant relationship between gender of respondents and level of utilization of adolescents' SRH services ( $R = -0.126$ ,  $p\text{-value} = 0.012$ ). The  $p\text{-value}$  is less than 0.05, so we reject the null hypotheses that there is no significant relationship between gender of respondents and level of utilization of adolescents' SRH services.

#### Relationship between level of utilization of adolescents' SRH services and the accessibility of adolescents' SRH services

The relationship between level of utilization of adolescents' SRH services and the accessibility of adolescents' SRH services is as presented on table 8. The table revealed that there is a positive and slightly strong significant relationship between level of utilization of adolescents' SRH services and the accessibility of adolescents' SRH services ( $R = 0.560$ ,  $p\text{-value} = 0.000$ ). The  $p\text{-value}$  is less than 0.05, so we reject the null hypotheses that there is no significant relationship between level of utilization of adolescents' SRH services and the accessibility of adolescents' SRH services.

### Discussion

Overall, this study found a high level of accessibility amongst most of the students. This can be due to a number of factors assessed



**Table 6:** Factors influencing the utilization of adolescents' SRH services.

Factors influencing the utilization of reproductive health services among undergraduates	Yes (%)	No (%)	I don't know	Mean	SD
Attitude of staff in the clinics	321 (80.9%)	49 (12.3%)	27 (6.8%)	2.68	0.68
Religious practices	292 (73.6%)	85 (21.4%)	20 (5.0%)	2.52	0.82
Cultural practices	267 (67.3%)	70 (17.6%)	60 (15.1%)	2.50	0.78
Lack of privacy/confidentiality	255 (64.2%)	64 (16.1%)	78 (19.6%)	2.48	0.76
Waiting period	241 (60.7%)	67 (16.9%)	94 (23.7%)	2.44	0.76
Persuasion from parents	235 (59.2%)	94 (23.7%)	68 (17.1%)	2.36	0.84
Persuasion from friends	167 (42.1%)	121 (30.5%)	109 (27.5%)	2.11	0.85
Waste of time	177 (44.6%)	137 (34.5%)	83 (20.9%)	2.10	0.88
Service too expensive	135 (34.0%)	101 (25.4%)	161 (40.6%)	2.09	0.77
Hatred for the services	124 (31.2%)	190 (47.9%)	83 (20.9%)	1.83	0.87

**Table 7:** Relationship between Gender of respondents and level of utilization of adolescents' SRH services.

		Gender		Total	R	P-Value
		Male	Female			
Level of utilization of adolescents' SRH services	Under Utilized	87	180	267	-0.126	0.012
	Highly Utilized	34	96	130		
Total		121	276	397		

**Table 8:** Relationship between level of utilization of adolescents' SRH services and the accessibility of adolescents' SRH services.

		Level of utilization of adolescents' SRH services		Total	R	P-Value
		Under Utilized	Highly Utilized			
Extent of accessibility of adolescents' SRH services	Low Level of accessibility	28	88	116	0.560	0.000
	High Level of accessibility	239	42	281		
Total		267	130	397		

during the study, for instance: the distance between most students and the school clinic was always a short walking distance; also, most students confirmed that condoms and other contraceptives were easily accessible to them in the campus. These findings are consistent with the findings of [5] who conducted a similar study amongst adolescents in the Eastern part of Nigeria where he found that adolescents had geographical access to all available SRHSs. These findings support the United Nation's recommendation that young people deserve access to equitable and universal SRHS [2]. However, the finding from this study is in variance with that of a previous study [12] who found low levels of accessibility to adolescents SRHSs.

The study revealed that most respondents under-utilized the available adolescents' SRHS. Specifically, most of the students had never gone to acquire condoms for the prevention of STI's; received any form of counselling about the prevention of pregnancy/STI's nor had they received treatment to STIs. This agrees to the findings of a very recent study conducted amongst adolescents in Oyo state [13], where only about one-tenth of respondents had ever utilized any reproductive health service. This is also in consonance with a similar study in Sri Lanka, Ethiopia, where none of the adolescents had ever accessed an adolescent RH facility [14] This is, however, different from another study, where about four-fifth of respondents had utilized Family Planning and Voluntary Counseling and Testing services respectively before [15].

Most of the respondents identified some factors that negatively affect the accessibility and utilization of SRHSs in the campus, these factors include: attitude of staff in the clinic, religious and cultural practices, longer waiting periods, and lack of privacy. This totally agree with the findings of several authors who had earlier researched on this topic [5, 15, 16]. Particularly, Nmadu [16] itemised these factors under the theme "Community level factors". In that study, both the adolescents and nurses identified cultural and religious norms as the most significant barriers that affected adolescents' access to and utilization of SRH. These findings can be explained by the fact that in Nigeria, issues pertaining to sexuality are not usually openly discussed. Most times it is considered a taboo or a myth. Consequently, the adolescents resort to keeping to themselves on these matters. Odo et al [5] posits that this can be a great disadvantage to the young people in Nigeria as they might be missing out on vital sexual and reproductive health services such as counselling and comprehensive sexual education.

The study found significant association between the gender of respondents and the level of utilization of adolescents SRHS. Similar findings have been recorded by Odo et al.[5] Olaleye et al. [17] and Ehiawey [18] all of whom reported statistical association between gender and level of utilization of SRHS. A Ghanaian study [15] explained these findings by stating that most female utilized SRHS more as compared to males. However, this finding contradicts that of Denno and his colleagues, who reported no

difference between gender and access to SRHS [12].

Finally, the study found a significant association between the level of accessibility and the Utilization of SRHS amongst the respondents. Findings from a study conducted in the Eastern part of Nigeria [5] also agrees to this. Specifically, geographical and financial access to SRHS were statistically associated to the Utilization [5,19]. This implies that the distance, and cost of obtaining services are major determinants of how well adolescents can make use of available SRHSs.

## Conclusion

Despite high accessibility, most students still do not utilize available SRHS. Various factors that can be held responsible for low utilization include sociodemographic factors like cultural and religious background; other factors identified were institutional such as lack of privacy, attitudes of health professionals amongst other. Gender is a serious determinant of level utilization of adolescent SRHS.

## Acknowledgement

We appreciate our respondents for taking time to participate in the study.

## Ethical Approval

Ethical approval was obtained from the University of Ibadan/ University College Hospital ethical committee (ethical approval number: NHREC/05/01/2008) before the commencement of the research. Informed consent was signed by all participants with the assurance of anonymity and confidentiality of all information provided by the respondents.

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