

## Factors Influencing Access and Utilization of Reproductive Health Services among Undergraduates in Selected Tertiary Institutions in Ogun State, Nigeria

ADEFALU, Ganiyat Adebisi<sup>1</sup> (Mrs) & AYODELE, Kolawole Olanrewaju<sup>2</sup> PhD

### Abstract

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Young people's reproductive health services have been largely neglected in the past, leaving them vulnerable to reproductive health problems like Sexual Transmitted Infection (STI), unintended pregnancy, unsafe abortion and other harmful practices. Although much research has been done on reproductive health services (RHS), but the persistence of reproductive health problems among undergraduates in Nigerian university makes this study pertinent. A survey research design was adopted for this study while multistage sampling method was used to select the school, faculties, and participants of this study. A self-designed questionnaire was used for data collection, which was pilot tested through test-re-test and yielded a reliability coefficient (index) of .860. Four research questions and five hypotheses were formulated and tested. Analysis of data was done using descriptive statistics and regression analysis fixed at the .05 significant levels. A total of 388 participants were included in the study, 39.2% and 60.8% were males and females respectively while their ages ranged from 16-27 years with a mean age of 20.9. The findings from this study showed that majority of the respondents 283 (72.9%) were aware of RHS; 57.7% had moderate knowledge of available RHS for the youths; 63.4% had never visited a health facility in their locality for reproductive health service(s); and 87.8% of the participants had low level of utilization of RHS. It was revealed further that personal ( $M = 3.149$ ,  $SD = 1.505$ ), socio-economic ( $M = 3.981$ ,  $SD = .975$ ), and institutional factors ( $M = 3.654$ ,  $SD = 1.220$ ) were potent enough in influencing utilization of RHS. Knowledge of RHS was not significantly different among male and female ( $p = .437$ ); while a significant gender difference was found in the undergraduates' utilization of reproductive health services ( $p = .03$ ). Utilization of reproductive health services was not significantly influenced by undergraduates' sexual behaviour ( $p = .693$ ); 21% of the total variance in the access to reproductive health services was accounted for by sexual behaviour, gender, and knowledge, while the most potent factor was knowledge ( $p = .00$ ); and 7% of the total variance in the utilization of reproductive health services was accounted for by sexual behaviour, gender, and knowledge; while the most potent factor was gender ( $p = .03$ ). The study concluded that factors influencing access and utilization of RHS were personal, socio-economic, and institutional in nature. Based on the outcome of this study, it was recommended that active sensitization of the youth in schools, through school health programs not just at the University level but from primary school be promoted. Nurses should provide a youth friendly RHS, that is functional, effective and affordable at every point in time.

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**Keywords:** Access, Factors, Reproductive health services, Undergraduates, Utilization

### 1. Introduction

Undergraduate students have been seen as a distinct group among school going youths/children and they face a unique set of circumstances which play an intricate role in the manifestation of emotional health problems, which makes them prone to a lot of mental health concerns. As noted by Devulapalli (2010) undergraduate students face a transition period in their lives where many changes occur. Often, students leave their parents and guardians to live in dormitory settings. In this new setting, college students will face new social situations including a greater exposure to sexual exploration, alcohol and drugs, and the likes.

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<sup>1</sup> Nursing Department, Babcock University Ilishan-Remo, Ogun State, Nigeria. [adefaluae12@gmail.com](mailto:adefaluae12@gmail.com). Phone: 07032300170

<sup>2</sup> Department of Education, Babcock University, Ilishan, Ogun State. E-mail: [ayodelek@babcock.edu.ng](mailto:ayodelek@babcock.edu.ng) Phone: 08055676925

However, within sub-Saharan Africa, Nigeria has been tagged as the most populous country with a population of about 182.2 million as at 2015. The youth makes up over 31.6 percent (one third) of Nigeria's growing population (National Population Commission, 2013). As a result sexual and reproductive health (SRH) outcomes in Nigeria highlight the importance of focusing on adolescents.

Attitudes toward premarital sex among adolescents have become increasingly more permissive in the last three decades (Akindele-Oscar & Ayodele, 2004; Olusakin & Parmer, 2007; Ogunsanya, 2007; Ayodele, 2011). Research documenting the propensity of sexual permissiveness is well documented in previous research (Meier 2007; Manning, Giordano & Longmore 2006). In a meta-analysis study by Oladeji (2013), it was reported that 34% of early adolescents and 61% late adolescents reported they have had sexual intercourse, and 7% of high school students said they first had intercourse before age 13 (Grunbaum, Lowry, Kann, & Pateman, 2000). Ayodele (2011) found out in his study that 89.3% male and 91.2% female have once had sexual intercourse in the last six month. Out of these, 6.1% male and 28.8% female had experienced attempted forced sex or forced sex.

Globally, sexual and reproductive health services for the youth have gained the interest of researchers and health policy makers (WHO, 2013; Sawyer, Proimos, & Towns, 2010). The World Health Organization (2013) discovered that adequate and friendly reproductive health services can scale up young people's use of services contingent on the fact that service providers are well trained to ensure the health facilities are youth-friendly, and create demand and community backing through projects in the community, a decision based on findings of data analysis overtime and expert advice.

The wastage of youth as potential resources is deeply lamentable as majority of them are turning to self-destruction through unprotected sex. Most young people are exposed to serious risks before they get enough information, skills and experience to avoid wrong choices or make an informed choice (WHO, 2013). Young people aged 15-24 account for 45% of HIV new infections worldwide (WHO, 2010). Around 14 million of adolescents give birth each year globally and 90% of these occur in developing countries (UNFPA, 2011).

About 19-20 million abortions are performed annually and about 97 % occur in developed countries. Abortion complications account for 13% of maternal mortality worldwide (Tripney et al., 2013). About 650 million of the world's population lives with disability and their sexual reproductive health needs have been neglected by the society and health care providers although they have same sexual needs like their normal counterparts (UNFPA, 2006). There is evidence that low socioeconomic status, lack of information, stigma and cultural factors are some of the factors that compromise adolescents' access and utilization of reproductive health services. Lack of information on sexuality and some myths related to use of family planning are some of the factors that discourage the youths from accessing reproductive health services (Regmi et al 2010; Nyoni, 2008; UNFPA, 2005).

The evidences shown above is convincing that most young people lack sufficient knowledge of human sexuality which reflects in their sexual behaviour and a negative attitude towards the corresponding health services. Also, researchers have noted that the use of reproductive health services by the youths is very low (Ilesanmi, Ezeokoli, Obasohan, Ayodele & Olaoye, 2015; Schriver, Meagley, Norris, Geary, & Stein, 2014). This is due to some factors inherent in the individuals themselves or the community in which they live or find themselves. This unpleasant state of affairs calls for an urgent investigation of some factors influencing knowledge and utilization of reproductive health services among undergraduate students. Several literatures have revealed that sexual behavior is the primary route of sexually transmitted infections (STIs) and propagation (Shah, Shiraishi, Subhachaturas, Anand, Whitehead, et al, 2011). As a result, about two-thirds of all STIs worldwide occur in adolescents and those in their early twenties ( Dehne & Reidner, 2009).

In the words of World Health Organisation (WHO), an estimated 24.4 million women globally resort to abortions annually, with youths accounting for about 50% of abortion related mortality in the African region (WHO, 2014). Unintended pregnancies have been as a result of non-abstinence (Ayodele, 2015); unprotected sexual intercourse as well as contraceptive failure (Tayo, Akinola, Adewunmi, Osinusi, & Shittu, 2011; Osakinle, Babatunde & Alade, 2013). WHO (2011) confirmed that unprotected sex is responsible for about 498 million cases of STIs experienced yearly among young couples. Research results in the last 5 years revealed that Nigerian youths are in need of viable sexual and reproductive health care (Ayodele, 2015) but failed to access the existing services such as voluntary counselling and testing (VCT) (Ezeokoli *et al.*, 2015) because the providers are often biased, unfriendly, or not adequately trained to serve sexually active youth (Njoroge, 2016).

As a result of the aforementioned sexual characteristics of the teenagers and young adults, engaging in health services that will promote their sexual health is paramount. Reproductive health services is therefore defined as the constellation of methods, techniques and services that contribute to reproductive health and well-being by preventing and solving sexual health problems. Thus, the use of health services is essential in maintaining a healthy life. It boosts psychological well-being and reduces mortality rate due to early disease detection (Kennedy Bulu, Harris, Humphreys, Malverus, & Gray, 2010; Ralph & Brindis, 2010). Positive attitude towards the use of health services will increase uptake of services and achievement of health millennium development goals.

## 2. Research Questions

Four research questions were raised to guide this study:

1. What is the level of knowledge of undergraduates on available reproductive health services for the youths?
2. To what extent do undergraduates have access to reproductive health services?
3. What is the level of the utilization of reproductive health services by undergraduates?
4. What are the factors influencing utilization of reproductive health services by undergraduates?

## 3. Methodology

**Research Design:** This research study adopted a survey research design to assess the factors influencing access and utilization of reproductive health services among undergraduates in selected tertiary institutions in Ogun State, Nigeria.

**Population:** The study population cuts across all university students except graduate and postgraduate students in Ogun State. The characteristic of the study population was mixed at every university irrespective of school type (private and public) gender (male and female), age, socio-economic background, ethnicity, and class level.

**Sample size and sampling Technique:** There are ten (10) approved universities in Ogun State. Seven (7) are owned by the private or religious organizations while the remaining three (3) are owned by the government. A sample of four hundred and fifteen (415) undergraduates was selected for this study. A multi-stage sampling procedure was used to select the various faculties/schools. The Multi-stage sampling technique was chosen because it is a stage-by-stage system of sampling. The universities were first selected through stratified random sampling method in which the universities were stratified based on ownership (private and public [federal and state]). Secondly, from the categorization of either private or public universities, four (4) universities (2 private and 2 public) were selected using balloting method of random sampling method. Thirdly, the faculties or schools in the selected universities were again stratified into two as (1) science oriented and (2) non-science oriented, in which one faculty/school each was selected based on stratification; thus, making 2 faculties per university. This shows that eight (8) faculties/schools were involved in the study. In each faculty again simple random sampling was used to pick one department in faculty. Lastly, proportional stratified random sampling method was used for the selection of 415 undergraduates in Ogun State, the selection of the student at each level was done putting into consideration the gender of the student through purposive sampling technique. Dodge (2003) stated that the sample size of each stratum in this technique is proportionate to the population size of the stratum when viewed against the entire population. This means that each stratum has the same sampling fraction.

**Instrumentation:** The instrument used for this study was a structured survey questionnaire. The research instrument was divided into six sections based on the variables of the study. The face and content validity of the instrument were ensured through the help of experts in the field of nursing. Their observations were used to correct the items in the research instrument. The instrument was subjected to a pilot testing among forty-two (42) undergraduates of Olabisi Onabanjo University, Ago-Iwoye, Ogun State and a reliability coefficient of .831 was obtained.

**Data Analysis:** In this study, the data analysis tools that were adopted include 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 1, 2, 3 and 4. Simple regression analysis was used to test hypotheses one through four. All the hypotheses were tested at 5 percent level of significance ( $\alpha = 0.05$ ) using the SPSS 21 version software.

**Ethical Consideration:** Ethical approval for this study was obtained from Babcock University Health Research Ethics Committee (BUHREC). The ethical approval number is BUHREC/065/18.

## 4. Results and Discussions

**Table 1: Respondents' Demographical Data**

SN	Variable (N =388)	Frequency	%	
1	Age	16-18yrs	61	15.7
		19-21yrs	148	38.1
		22-24yrs	112	28.9
		25yrs above	67	17.3
2	Gender	Male	152	39.2
		Female	236	60.8
3	Religion	Christianity	205	52.8
		Islam	180	46.4
		Others	3	.8
4	Marital Status	Single	372	95.9
		Married	16	4.1
5	Ethnicity	Yoruba	348	89.7
		Hausa	12	3.1
		Igbo	12	3.1
		Others	16	4.1
6	Residency	On campus	231	59.5
		Off- campus	157	40.5
7	Level	100L	80	20.6
		200L	79	20.4
		300L	81	20.9
		400L	76	19.5
		500L	72	18.6

In the age bracket, 61 (15.7%) of the respondents claimed they are within ages 16-18 years. One hundred and forty-eight (38.1%) of the respondents were 19-21 years of age, 112 (28.9%) were 22-24 years of age, 67 (17.3%) were 25 years above. Majority (60.8%) of the respondents were female; 205 (52.8%) were Christians; almost all the participants were singles. The participants' ethnic group revealed that 348 (89.7%) of the participants were Yoruba, 12 (3.1%) were Hausas and Igbo respectively, and 16 (4.1%) were others. The reason for the high population observed among the Yoruba is because the study area is situated in Yoruba land. The result of the analysis of the demographic variable as regards the undergraduates' residency revealed that 231 (59.5%) resides within the campus while 157 (40.5%) resides off campus.

**Table 2: Information on the undergraduates' knowledge of available reproductive health services for the youths**

Variable (N =388)	Yes (f) (%)	No (f) (%)
Pregnancy testing services	283 (72.9)	105 (27.1)
STI diagnosis and treatment services	208 (53.6)	180 (46.4)
Voluntary counseling & Testing	171 (44.1)	217 (55.9)
Safe abortion services	120 (30.9)	268 (69.1)
Antenatal care services	220 (56.7)	168 (43.3)
Prenatal care services	218 (56.2)	170 (43.8)
Family planning services	266 (68.6)	122 (31.4)
Safe delivery and antenatal care	158 (40.7)	230 (59.3)
Prevention and treatment of infertility	161 (41.5)	227 (58.5)
Sexuality education	144 (37.1)	244 (62.9)
Treatments of STI	209 (53.9)	179 (46.1)
Counseling on prevention of reproductive cancer	212 (54.6)	176 (45.4)
Do you know about reproductive health services	283 (72.9)	105 (27.1)
Reproductive health service is to find out about my social need	177 (45.6)	211 (54.4)
Reproductive health services is to find out about my emotional need	227 (58.5)	161 (41.5)
Reproductive health services is to find out about my mental wellbeing need	293 (75.5)	95 (24.5)
Reproductive health services is majorly for sick people	308 (79.4)	80 (20.6)
Do you know that there are clinics that provide adolescent sexual and reproductive health services in the state	266 (68.6)	122 (31.4)
If yes, have you visited any clinic to receive sexual and reproductive health services?	85 (21.9)	303 (78.1)
where people get reproductive health services: Clinics	108 (27.8)	280 (72.2)
where people get reproductive health services: Hospitals	253 (65.2)	135 (34.8)
where people get reproductive health services: Schools	27 (7.0)	361 (93.0)
where people get reproductive health services: Primary health centre	61 (15.7)	327 (84.3)
where people get reproductive health services: NGO outlets	27 (7.0)	361 (93.0)
source of information: Mass media	142 (36.6)	246 (63.4)
source of information: Internet	157 (40.5)	231 (59.5)
source of information: Parents	33 (8.5)	355 (91.5)
source of information: School	45 (11.6)	343 (88.4)
source of information: Friends/peers	10 (2.6)	378 (97.4)
source of information: Youth friendly club	1 (0.3)	387 (99.7)

Respondents' knowledge of available reproductive health services for the youths revealed that 72.9% claimed that pregnancy testing services was one of the major services rendered for youths. Others were: STI diagnosis and treatment services (53.6%), Voluntary counseling & Testing (44.1%); Safe abortion services (30.9%); Antenatal care services (56.7%); Prenatal care services (56.2%), Family planning services (68.6%); Safe delivery and antenatal care (59.3%). Also, Prevention and treatment of infertility (41.5%), Sexuality education (62.9%), Treatments of STI (53.9%), and, Counseling on prevention of reproductive cancer (54.6%) were equally seen as available reproductive health services for the youths

Results revealed that majority of the respondents 283 (72.9%) about were knowledgeable of reproductive health services, while 177 (45.6%), 227 (58.5%), and 293 (75.5%) claimed that reproductive health service is to find out about their social, emotional and mental wellbeing needs respectively.

Almost all of the respondents (79.4%) agreed that reproductive health services is not majorly for sick people, 68.6% claimed to know that there are clinics that provide adolescent sexual and reproductive health services in the state; and 78.1% have never visited any clinic to receive sexual and reproductive health services. The responses on where people get reproductive health services, it was shown that 108 (27.8), 253 (65.2), 27 (7.0), 61 (15.7), and 27 (7.0) got the RHS at clinics, hospitals, schools, primary health centers, and NGO outlet respectively. Their sources of information on RHS are mass media (36.6%), internet (40.5%), parents (8.5%), school (11.6%), friends/peers (2.6%) and youth friendly club (0.3%).

**Table 3: Summary of Undergraduates' knowledge level of available reproductive health services for the youths**

Category	Criteria	Frequency	%	Remark
17-23	High	111	28.6	Number of participants with High level of knowledge of reproductive health services
9- 16	Moderate	224	57.7	Number of participants with moderate level of knowledge of reproductive health services
1-8	Low	53	13.7	Number of participants with low level of knowledge of reproductive health services

The Result presents the level of knowledge of undergraduates on available reproductive health services for the youths. Their knowledge was categorized as high (17-23), moderate/average (9-16) and Low (1-8). Majority 224 (57.7%) of the participants had moderate knowledge of available reproductive health services for the youths, 111 (28.6%) had high knowledge, and the remaining 53 (13.7%) had low knowledge.

Therefore, level of knowledge of undergraduates on available reproductive health services for the youths was moderate. Effort to address the unique sexual and reproductive health needs of the target population as also noted by Bedho (2014) and Godia, *et. al*, (2014). The outcome of this study is similar to prior studies of Simkhada et al. (2012), Paudel and Paudel (2014) that reported moderate level of knowledge on sexual and reproductive health among late adolescents. Also, the outcome of this study is in line with the evidences that most young people lack sufficient knowledge of human sexuality which reflects in their sexual behaviour with negative attitude to the corresponding health services. The implication for this finding is that many undergraduates today have knowledge of related available reproductive health services but due to inadequate information on RHS service available for the youths including pre-natal and post-natal service, VCT, STI, family planning but still failed to utilize it. This may due to some factors inherent in the individuals themselves or the community in which they live or find themselves.

**Table 4: Undergraduates' access to reproductive health services for the youths**

Variable (N =388)		Frequency	Percent
Have you ever visited a health facility in your locality for reproductive health service(s)?	No	246	63.4
	Yes	142	36.6
In your opinion, which of the following factors mostly influences your access to RHS information?	family values	119	30.7
	Education	176	45.4
	peer influence	70	18.0
	Religion	23	5.9
How far is the nearest RH service delivery point from your home? [specify in km]	less than 5km	141	36.3
	6km and above	147	63.7
How far is YFRH facility from your home?	short walking distance	144	37.1
	#100 for transport	72	18.6
	#200 for transport	89	22.9
	Over #200 for transport	83	21.4

The study showed that majority (63.4%) of the respondents 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 RHS information. Knowledge of existence of services in terms of, place and distance empowers adolescents to make informed decisions and also promotes access of RH services. The poor accessibility observed in this study may be as a result of compounded factors like distance or nearness to RH service delivery point. In this study, only 36.3% claimed to have a short distance to cover before getting to the service point. The community plays a major role in the implementation of health programs including health seeking behavior, accessibility, and acceptability of services. The findings of Kesterton and de Mello (2010) support this finding. They found that accessibility of RH services by young adults is embedded in the distance to be covered to access the services and the extent at which the whole community helped the young ones received the services.

**Table 5: Utilization of sexual and reproductive health services (RHS)**

Utilization (N =388)		Frequency	Percent
Have you ever use any RH service?	No	321	82.7
	Yes	67	17.3
Counseling on prevention of pregnancy, STIs, etc	Never	279	71.9
	Sometimes	81	20.9
	Often	14	3.6
	All the time	14	3.6
	Screening for STIs and HIV	Never	276
	Sometimes	70	18.0
	Often	24	6.2

	All the time	18	4.6
Treatment for STIs including HIV	Never	332	85.6
	Sometimes	27	7.0
	Often	15	3.9
	All the time	14	3.6
Acquisition of condoms for prevention of STIs and unwanted pregnancy	Never	282	72.7
	Sometimes	61	15.7
	Often	19	4.9
	All the time	26	6.7

The result showed that most (87.8%) of the participants had low level of utilization of reproductive health services. This outcome was not too surprising as 82.7% of the undergraduates had never used any RH service in life; 71.9% never utilized the counselling on prevention of pregnancy, STIs; 71.1% failed to do the screening for STIs and HIV; 85.6% never used the treatment for STIs, and 72.7% never utilized the reproductive health services for the acquisition of condoms for prevention of STIs and unwanted pregnancy.

This is in tandem with Ajike and Mbegbu (2016), who found that more than half, 268 (79.5%) of their respondents did not know of a specific Adolescents and Youth Friendly Reproductive Health Services (A/YFRHS) provided in the study area, while friends/peers were the best source of information on A/YFRHS. Also, their participants knew what adolescent/youth friendly services were but did not know where to get these services from because they were not aware of the available A/YFRHS facilities.

**Table 6: summary of Undergraduates' level of the utilization of reproductive health services**

Category	Criteria	Frequency	%	Remark
14-18	High	13	3.4	Number of participants with High level of utilization
9- 13	Moderate	34	8.8	Number of participants with moderate level of utilization
4-8	Low	341	87.8	Number of participants with low level of utilization

The result presents the level of the utilization of reproductive health services by undergraduates. Their utilization level was categorized as high (14-18), moderate/average (9-13) and Low (4-8). Majority 341 (87.8%) of the participants had low level of utilization of reproductive health services, 34 (8.8%) had moderate utilization, and the remaining 13 (3.4%) had high level of utilization of reproductive health services. This is in tandem with previous researchers like Ilesanmi, Ezeokoli, Obasohan, Ayodele and Olaoeye (2015); Schriver, Meagley, Norris, Geary, and Stein (2014) that the use of reproductive health services by the youths is reported to be low and that young males and females are confronted with sexual health issues stemming from preventable problems of unintended pregnancy, unsafe abortion, and sexually transmitted infections (STIs) like HIV/AIDS.

**Table 7: Factors Influencing Undergraduate Access and Utilization of Sexual and Reproductive Health Services**

Variable (N =388)	Strongly Agree/Agree	Strongly Disagree/Disagree	Overall Weighted mean/SD
<b>Personal factors</b>			X = 3.149, SD = 1.505
To obtain information	360 (92.8)	28 (7.2)	
It is important	347 (89.4)	41 (10.6)	
Religious practices	238 (61.4)	150 (38.6)	
Waste of time	86 (22.2)	302 (77.8)	
Hatred for the service	108 (27.8)	280 (72.2)	
<b>Socio-economic Factors</b>			X = 3.981, SD = .975
Service too expensive	206 (53.1)	182 (46.9)	
Persuasion from friends	249 (64.2)	139 (35.8)	
Persuasion from parents	253 (65.2)	135 (34.8)	
Information from mass media	288 (74.2)	100 (25.8)	
To meet other youths	241 (62.2)	147 (37.8)	
<b>Institutional Factors</b>			X = 3.654, SD = 1.220
Waiting Period	244 (62.9)	144 (37.1)	
Attitude of the nurse	248 (64.0)	140 (36.0)	
Patients' volume	242 (62.4)	146 (37.6)	
Lack of privacy/confidentiality	223 (57.5)	165 (42.5)	

The findings showed that personal, socio-economic, and institutional factors are potent enough in influencing utilization of reproductive health services. This finding therefore corroborate that of UNICEF (2011) and Tripney (2013) that personal factors embedded in socio-cultural and/or traditional practices play a particularly strong significant role in shaping young people's sexual behaviours and form a strong control upon the expression on utilization of RHS.

On socioeconomic factors, 74.2% agreed that reproductive health services could be utilized in the mass media; persuasion from parents and friends were rated 65.2% and 64.2% respectively, while 53.1% said that reproductive health services is too expensive to utilize. The results are consistent with findings by Motuma (2012) who stated that barriers to using RHS among adolescents continue today, and they include high costs of services, inconvenient locations, limited hours of operation, unsupportive provider attitudes, and a lack of quality services, a lack of confidentiality and privacy. It is believed that young people fear that they may encounter service providers who may be judgmental and also are worried that confidentiality may be compromised. Nigeria is one of the countries where premarital sex is prohibited, some young people do not feel comfortable to visit the clinics because they might be ridiculed or denied services by service providers. Similarly, in Nigeria adolescents have experienced the same treatment which discourages them to utilize SRH services at health facilities (Ayodele, Olanipekun, & Akinlana, 2015).

On institutional factors, 64.2% respondents claimed the attitude of the nurses is a barrier to utilization. Waiting period (62.9%), patients' volume (62.4%) and lack of privacy/confidentiality (57.5%) were equally identified as barriers to utilization among the participants of this study. This is in tandem with the previous findings of Lesediet *al.* (2011) ; Ezeokoli, et. al, (2015); Ajike and Mbegbu (2016) that health provider attitudes and behaviour, including being unfriendly, and lack of privacy have impact on how adolescents access and perceive the RHS, and are some of the reasons adolescents give in for not utilizing the services.

Also as shown in the conceptual model, if the undergraduates have adequate access and utilization of sexual and reproductive health services this will lead to a healthy sexual and reproductive individual and the non utilization which may be due to either of the factors stated above would lead to sexual and reproductive unhealthy individual.

## 5. Conclusion and Recommendation

It is clear from the findings of this study that a majority of adolescents do not utilize RHS. The study has identified personal, socio-economic, and institutional factors influencing utilization of reproductive health services. Among the personal factors, the most prominent are information on utilization of reproductive health services, importance of RHS, and religious practices. On socioeconomic factors, mass media; persuasion from parents and friends, and cost implication of the services were potent factors. The institutional factors shows that attitude of the nurses, waiting period, patients volume and lack of privacy/confidentiality were equally identified as barriers to utilization among the participants of this study. The knowledge level of undergraduates on available reproductive health services was found to be moderate while low level of utilization of reproductive health services was reported. It is therefore important to note that barriers to adolescent utilization of RHS persist.

As a result of this, priority should be given to the education of undergraduates on the relevance of utilization of RHS in order to address the identified knowledge deficit about available reproductive health services and the importance of utilizing such services.

Undergraduates' knowledge of reproductive health services was found to be the only potent factor in the prediction of access to reproductive health services among undergraduates, while gender was the only potent factor in the prediction of utilization of reproductive health services among undergraduates.

## Conflict of Interest

No conflict of interest has been declared by the authors.

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