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Sexual and Reproductive Health Service Utilization among Adolescents in a Girls Secondary School in Enugu Metropolis, Enugu State, Nigeria

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Article history: Received 12 July 2024, Reviewed 11 September 2024, Accepted for publication 15 September 2024

Abstract

Background: Sexual and reproductive health (SRH) services for adolescents is critical for facilitating their physiological, cognitive, emotional, and social transition into adulthood. This study assessed SRH utilization and associated factors among adolescents in Queens School, Enugu state, Nigeria.

Method: A cross-sectional descriptive survey among 324 female students at Queens School, Enugu, selected through simple random sampling technique from a population of 2,120 adolescents. Data collected using a researcher-developed questionnaire with a reliability coefficient of 0.762 was analysed using descriptive, inferential and logistic regression analysis.

Result: Only 11 (3.4%) of the adolescents had ever gone to a health facility for SRH needs, mainly private hospitals (45.5%). In the last six months, only 3 (0.9%) visited a health facility. The major reasons for health facility visit were to test for pregnancy (45.5%) and counselling (45.5%). Assumption of not having any SRH issue (82.3%, n=267) was the main reason for non-utilisation. Age (p =0.14), class of study (p =0.32) and pocket money source (p =.044) were associated with utilisation of SRH service. Age (p =0.14) and being sexually active (p =0.001) significantly predicted utilization of SRH services. The odds of utilizing services increase 2 times for every 1-year age increase [OR =2.0; 95% C.I.=1.15-3.48]; and increase about 14 times for an adolescent that have once engaged in sex [OR =14.29; 95% C.I.=2.98-68.54].

Conclusion: Utilization of sexual and reproductive health services is very low among the respondents. Targeted interventions and strategies for improving SRHS utilization are required among adolescents to optimize their SRH.

Keywords: Adolescents, Sexual and Reproductive Health, Services, Utilization.

How to cite this article:

Israel CE, Nwosa AC, Agu IS. Sexual and Reproductive Health Service Utilization among Adolescents in a Girls Secondary School in Enugu Metropolis, Enugu State, Nigeria. The Nigerian Health Journal 2024; 24(3):1523-1534.
https://doi.org/10.60787/tnhj.v24i3.866

Introduction

Adolescents' quality of life is impacted by sexual and reproductive health (SRH) services, which are very crucial for both their reproductive health and general well-being.[1] Over the years, there has been a significant rise in adolescent pregnancies, sexually transmitted infections (STIs), including HIV, and sexual engagement which have raised concerns about the SRH of adolescents.[2] Evidence has shown that the number of young people with behaviourally acquired HIV infection has increased over time; and in 2019, youths (aged 15–24 years) accounted for 28% of all new HIV infections, with adolescent girls and young women comprising up to two-thirds of new infections.[3] Scenarios such as mentioned earlier arise because the adolescence period is a vulnerable period of the life cycle between the ages of 10-19 years of age, marked by profound physiological, psychological, and social changes, which increases the likelihood of SRH issues as one transition from childhood to adulthood.[4] The World Health Organization (WHO) noted that for many adolescents who need sexual and reproductive health services, such as appropriate information, contraception and treatment for sexually transmitted infections, these services are either not available or are provided in a way that makes adolescents feel unwelcome and embarrassed[5]. Improving access and utilization of adolescent sexual and reproductive health services thus is an evidence-based strategy for improving the health and quality of life among adolescents.

Approximately 21 million girls from 15 to 19 years and 2 million girls aged below 15 years become pregnant in developing countries each year, with an estimated 12 million girls between ages 15 and 19 years and 777,000 million girls below the age of 16 years giving birth.[6] Additionally, WHO estimated about 5.6 million unsafe abortions among adolescent girls aged 15-19 years; and 800,000 young people affected with HIV/AIDS in developing regions[7] including Nigeria. Furthermore, the AIDS epidemic has been identified as the leading contributor to morbidity and mortality among young people aged 10-24 years in Africa.[8]

To facilitate adolescents' optimal physiological, cognitive, emotional, and social transition into adulthood; quality, affordable, equitable, acceptable, and effective SRH services are required and paramount.[6,9] Although ensuring universal access to SRH services is one of the focal targets of the sustainable development goals,[10] sadly, there has been evidence of poor access to and unequal distribution of excellent SRH services, particularly in sub-Saharan African nations.[11] Hence, hampering the efforts to achieve high standards of sexual and reproductive health, resulting in poor utilization of sexual reproductive health services (SRHS) within these areas.[12-13]

A 2023 study among in-school adolescents in a local government in Enugu showed that more than half of the respondents were involved in risky sexual behaviours with negative SRH outcomes as its sequale.[14] According to Abdurahman et al., nearly one in four secondary school adolescents utilized SRH services in eastern Ethiopia.[15] Adolescents who were exposed to SRH information, aware of SRH services providing facilities and components, as well as the distance from SRH facilities were significantly associated with the utilization of SRH services.[15] In Nigeria, significant disparities exist in the knowledge and access to SRH services among adolescents. It was reported that although adolescents had a good knowledge of SRH, service utilization remained either low or fair due to some individual and sociocultural factors.[16-19]

Adolescents experience structural, health facility, community, interpersonal, and individual level barriers and facilitators to accessing and utilizing SRH services.[20-21] The fear of being stigmatized, shame and shyness, negative attitudes of healthcare providers, policies and laws that require parental or partner consent, and lack of age-appropriate and adolescent-centered and friendly services act as barriers and facilitators to SRH utilization among adolescents.[15-17,21] In a related study, respondent's age and partner's occupation were independently associated with utilization of SRH services among adolescents.[16] Odo et al on the other hand noted that adolescents perceive SRH services as financially inaccessible and not adolescent-friendly.[11] Additionally, religion and social structures present in many African countries including Nigeria, create certain norms around adolescent SRH, thereby posing as barriers to utilisation of these services.[16] Among in-school adolescents attending secondary schools in Haramaya District, Eastern Ethiopia, awareness of SRH services and distance to health facilities were significantly associated with utilization.[15]

As a result of these barriers to service utilization, the health of the adolescent might be affected leading to numerous SRH issues, compromised educational attainment, and reduced economic potential of the country.[13] Unfortunately, there are still gaps in assessing the service utilization of SRH among adolescents in Enugu state, as well as understanding the factors influencing the service uptake. Unravelling the characteristics and factors associated with the utilisation of SRH services by adolescents will engender the

Print ISSN: 0189-9287 Online ISSN: 2992-345X

application of targeted and evidence-based strategies for improving service utilization and hence adolescent sexual and reproductive health outcomes by relevant stakeholders. The findings from this study can inform interventions that will provide favourable uptake of SRH services among adolescents.

Method

Study setting

The study was conducted at Queens School, Ogui, New-layout, Enugu State, Nigeria. It is an all-girls government boarding and day secondary school in Enugu, Southeast Nigeria located at Annang Street, Beside JAMB Office, Ogui New Layout. Queen's School, Enugu was founded on October 4, 1954 by the defunct Government of Eastern Nigeria. It is bounded in the north by New Layout Road, in the south and west by Institute of management and technology (formerly Enugu state, university of science and technology) and in the east by Alliance Francaise office. Queens school has a vast land that houses both the staff and boarding students comfortably. It consists of three classes (JS 1-3) in the junior section and three classes (SS1-3) in the senior section. The students attending the school are from both from well to do and average families.

Study Design

The study design was a cross-sectional descriptive survey was used to assess SRH services utilisation and predictors among adolescents at Queens School, Enugu Nigeria.

Population

All the students in students within the ages of 10-19 years in the Junior Secondary (JS) 1 and 2 and Senior Secondary (SS) 1 and 2 while excluding students in the examination classes of JS 3 and SS 3, made up the population of the study.

Sample Size estimation

A sample size of 324 calculated using Krejcie and Morgan's power analysis method for a known population (n/[1+(n/N)] was drawn from a population of the adolescent students.

Sampling Methodology

Proportionate sampling technique was utilized to determine the number of respondents to be selected from each class and a simple random sampling technique without replacement was used to recruit the participants from Junior Secondary (JS) 1 and 2 and Senior Secondary (SS) 1 and 2 while excluding students in the examination classes of JS 3 and SS 3. This method was used as it gives each element in the population equal and independent chance of being included in the sample removing selection bias.

Study Variables

The variables studied in this research are utilisation of SRH services, associated factors as well as predictors of SRH service utilization.

Data Collection

A researcher-developed questionnaire consisting of two sections (A – sociodemographic/associated factors of SRH utilization, B – level of utilization of SRH services) was used for data collection. To ensure validity of the instrument, the questionnaire was submitted to experts who ensured that the contents of the questionnaire reflect the objectives of the study before it was administered.

The questionnaire consists of two sections: section A contains the socio-demographic factors including family characteristics and living conditions while section B assessed the level of adolescents' utilization of SRH services. The questionnaire was pre-tested among adolescents at Urban Girls secondary school; an all-girls secondary school with characteristics similar to that of the study setting. Reliability testing yielded a reliability coefficient of 0.762 Cohen's Kappa indicating the appropriateness of the instrument for the study.

Ethics

Ethical approval was obtained from the Health Ethics and Research Committee of the Enugu State Ministry of Health (Ref: MH/MSD/REC21/441). Before the day of data collection, two sets of consent forms with detailed explanation of what the research involves were given to each student; one for the parent/guardian and one for the student in order to obtain informed consent. Only students who provided evidence of consent from self and parent/guardian were recruited for the study. The administrative permit prior to data collection was obtained from the principal of the school after presenting introductory letter and evidence of ethical approval. An explanation of the purpose of the study and the necessary instructions on how to fill out the questionnaire was provided to the respondents before data collection. The principles of voluntary participation, anonymity, and confidentiality were upheld throughout the study.

Data Analysis

Data were analyzed descriptively using statistics of frequencies, means, and standard deviation. The Fisher's exact tests were used to ascertain factors associated with

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SRHS utilization. Significant association hence existed if the p-value is less than 0.05; otherwise, no significance. All analyses were done with the aid of the Statistical Package for Social Sciences (SPSS) version 25 and Microsoft Excel 2017.

Results

Socio-demographic Characteristics of Adolescents at Queens School, Enugu

Table 1: Demographic Characteristics of the Adolescents at Queens Model School, Enugu (n=324)

Item	Freq	Percent	Range	M±SD
Age			**10-18**	**13.55±1.69**
- < 12	97	29.9		
- 13-14	132	40.7		
- 15 +	95	29.3		
Tribe				
- Igbo	320	98.8		
- Hausa	1	0.3		
- Yoruba	1	0.3		
- Others- Ibibio, Delta	2	0.6		
Religion				
- Christianity	321	99.1		
- Traditional	1	0.3		
- Islam	2	0.6		
Class				
- JSS 1	86	26.5		
- JSS 2	105	32.4		
- SSS 1	75	23.1		
- SSS 2	58	17.9		
Student type				
- Day student	254	78.4		
- Boarder	70	21.6		

From the result, as presented in Table 1, the age of the students ranged from 10-18 years, with a mean of 13.55 and a standard deviation of 1.69. Almost all were of the Igbo tribe (98.8%, n=320) and Christians (99.1%, n=321). The majority of the respondents were day students (78.4%, n=254).

Family Characteristics and Living Conditions of the Adolescents

Table 2: Family Characteristics and Living Conditions of the Adolescents at Queens Model School, Enugu (n = 324)

Item	Frequency	Percent
Who are you living with		
- Both parent	249	76.9
- Single parent	33	10.2
- Grandparents	11	3.4
- Sibling	3	0.9
- Uncle	2	0.6
- Aunt	15	4.6
- Nephew	1	0.3
- Cousin	2	0.6
- Guardian (not related by blood)	8	2.5
Gender of the person you are living with if not both parents *(n = 75)*		
- Female	58	77.3
- Male	8	10.7

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Item	Frequency	Percent
- Foster parents	9	12.0
If living with your parents, what is your family type (n = 249)		
- Nuclear	234	94.0
- Extended	15	6.0
Type of living arrangement		
- Public yard	88	27.2
- I room self-contained	22	6.8
- Two-bedroom flat	58	17.9
- Three-bedroom flat	104	32.1
- Duplex	48	14.8
- Four/Five-bedroom flat	4	1.2
Do you receive pocket money?		
- Yes	273	84.3
- No	51	15.7
How often do you receive pocket money (n = 273)		
- Daily	128	46.9
- Weekly	48	17.6
- Once in 2 weeks	20	7.3
- Monthly	55	20.1
- Once in 2 months	14	5.1
- Quarterly	8	2.9
Source of pocket money (n = 273)		
- Parents	252	92.3
- Siblings	41	15.0
- Niece	12	4.4
- Nephew	11	4.0
- Cousins	19	7.0
- Guardian	12	4.4
- Boy/male friend	8	2.9
- Neighbours	13	4.8

Table 2 showed that a greater proportion of the respondents were living with both parents (76.9%, n=249), mostly in a nuclear family setting (94.0%, n=234). For those not living with both parents, the majority were living with a female relative or guardian (77.3%, n=58). One hundred and four of the respondents were living in a three-bedroom flat (32.1%). Most of the adolescents received pocket money (84.3%, n=273); majorly daily (46.9%, n=128), and mostly from their parents (92.3%, n=252).

Utilisation of Sexual and Reproductive Healthcare Services among Adolescents at Queens Secondary School Enugu

Table 3: Utilization of Sexual and Reproductive Health Care Services among adolescents in Queens School Enugu? (n=324)

Item	Frequency	Percent
Have you ever gone to the hospital/health facility because of sexual and reproductive health needs?		
- Yes	11	3.4
- No	313	96.6
Where did you go when you had a sexual and reproductive health need (*n = 11)*		
- Government hospital	1	9.1
- Private hospital	5	45.5
- Health centre	3	27.3

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Item	Frequency	Percent
- Traditional	2	18.2
Have you visited sexual and reproductive health centers/hospitals in the **last six months?**		
- Yes	3	0.9
- No	321	99.1
What reason(s) made you to go to the hospital/health centre for your sexual and reproductive health needs *(n = 11)*		
- I went to check if I was pregnant	5	45.5
- I went to receive care after removing a pregnancy	1	9.1
- I went to buy a condom	2	18.2
- I went for counselling on my sexual and reproductive health	5	45.5
Which reason(s) hindered or stopped you from using sexual and reproductive health need		
- I feel uncomfortable going to the hospital/health facility	10	3.1
- My culture forbids me	3	0.9
- My religion prevents me	1	0.3
- My parents will not let me go	6	1.9
- I feel very shy going	11	3.4
- I don't know where I can use the services	2	0.6
- I have not had any sexual issues	267	82.3
- I am afraid that the nurse or doctor may tell my parents	7	2.2
- I don't have money, it is costly	8	2.5
- The bad comments and judgemental looks on the face of the health care workers	6	1.9
- None of the reasons because I am using the services very well	3	0.9

Results in Table 3 present the student's utilisation of sexual and reproductive healthcare services. Only very few students have gone to the hospital/health facility for sexual and reproductive health needs (3.4%) mainly private hospitals (45.5%). In the last six months, 0.9% (which also is 27.3% of those who once visited) had visited a facility. For those who visited, their reasons were mainly to check if they were pregnant (45.5%) and for counselling on their sexual and reproductive health (45.5%). The reason for non-use, hindered or stopped use of sexual and reproductive health needs was mainly the perception of not having any sexual and reproductive health issues that will necessitate utilisation of SRH services (89.2%).

Table 4: Factors Associated with Sexual and Reproductive Healthcare Service Utilisation

Item	SRH Services Utilization		Total	Fisher Exact	p-value
	Yes	No			
Age				7.891	.014
- ≤ 12	0(0.0)	97(100.0)	97		
- 13-14	4(3.0)	128(97.0)	132		
- 15 +	7(7.4)	88(92.6)	95		
Class				7.663	.032
- JSS 1	0(0.0)	86(100.0)	86		
- JSS 2	3(2.9)	102(97.1)	105		
- SSS 1	3(4.0)	72(96.0)	75		
- SSS 2	5(8.6)	53(91.4)	58		
Student type				-	.467
- Day student	10(3.9)	244(96.1)	254		
- Boarder	1(1.4)	69(98.6)	70		
Living with				.130	1.000
- Both parents	9(3.6)	240(96.4)	249		
- Single parent	1(3.0)	32(97.0)	33		
- Non-parent & foster parents	1(2.4)	41(97.6)	42		
Family type if living with both parents *(n = 249)*				-	1.000
- Nuclear	9(3.8)	225(96.2)	234		

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Item	SRH Services Utilization		Total	Fisher Exact	p-value
	Yes	No			
- Extended	0(0.0)	15(100.0)	15		
Gender of person if not both parents *(n = 75)*				.643	1.000
- Female	2(3.4)	56(96.6)	58		
- Male	0(0.0)	8(100.0)	8		
- Foster parents	0(0.0)	9(100.0)	9		
Living arrangement				5.226	.202
- Public yard	6(6.8)	82(93.2)	88		
- I room self-contained	0(0.0)	22(100.0)	22		
- Two-bedroom flat	2(3.4)	56(96.6)	58		
- Three-bedroom flat	1(0.9)	106(99.1)	107		
- Duplex	2(4.2)	46(95.8)	48		
Pocket money				-	.686
- Receive	9(3.3)	264(96.7)	273		
- Does not receive	2(3.9)	49(96.1)	51		
Pocket money source *(n = 273)*				5.796	.044
- Parents	4(1.9)	204(98.1)	208		
- Parents &non-parents	3(6.8)	41(93.2)	44		
- Non-parents	2(9.5)	19(90.5)	21		
Age at sex debut				2.675	.413
- Before 9 years	2(14.3)	12(85.7)	14		
- 9-12 years	0(0.0)	2(100.0)	2		
- 13-15 years	3(42.9)	4(57.1)	7		
- 16-19 years	1(25.0)	3(75.0)	4		

The findings as shown in Table 4 show that age (p = .014), class (p = .032) and source of pocket money (p = .044) were significantly associated with sexual and reproductive healthcare service utilisation of the adolescents. For age, the older students were associated more with the utilisation than the younger students [12 and below (0.0%), 13-14 (3.0%) & 15+ (7.4%)]. For class, the higher class were associated more with the utilisation compared to other classes [JSS1 (0.0%), JSS2 (2.9%), SSS1 (4.0%) & SSS2 (8.6%)]. For pocket moneysources, those who received money from non-parents were most associated with the utilisation followed by those who received from both parents and non-parents while those who received from their parents only were least [parents (1.9%), parents and non-parents (6.8%) & non-parents (9.5%)].

Table 5: Predicting Utilisation of Sexual and Reproductive Health Services among the Adolescents

	OR	p-value	95% C.I. for OR	
			Lower	Upper
Age	2.005	.014	1.154	3.482
Class: junior vs senior	.511	.556	.055	4.768
Student type: day vs boarding	.325	.372	.027	3.844
Living with both parents		.463		
- vs single parent	.304	.350	.025	3.687
- vs none/foster parents	.247	.327	.015	4.045
Living arrangement: public yard		.271		
- vs 1-2 rooms flat	.389	.316	.061	2.467
- vs 3-5 rooms flat	.104	.057	.010	1.068
- vs duplex	.555	.589	.066	4.690
Receive pocket money: Yes vs. No	.828	.854	.111	6.188
Engaged in sex before: No vs. Yes	14.292	.001	2.980	68.542

Print ISSN: 0189-9287 Online ISSN: 2992-345X

The Logistic regression in tables 5 showed that age (p = .014) and having engaged in sex before (p = 0.001) were the significant predictors of adolescents' utilization of SRH services. Specifically, the odds of utilizing services increase 2 times for every 1-year age increase [OR = 2.0; 95% C.I. = 1.15-3.48]; and increase about 14 times for an adolescent that have once engaged in sex [OR = 14.29; 95% C.I. = 2.98-68.54].

Discussion

Utilisation of sexual and reproductive health services among adolescents was found to be very low. This might be attributed to a lack of knowledge and information as regards SRH services available to adolescents as well as other restraining factors. The low utilisation among adolescents in this study was consistent with findings from other studies.[1,4,20] The low utilization of sexual and reproductive health services among the adolescents in the study population is worrisome as such a situation is usually associated with negative SRH and overall health outcomes. Adolescents are at a higher risk of early marriage, early pregnancy, early child rearing as well as other poor health outcomes over their life span.[20] A systematic review by Salam et al indicated that sexual and reproductive health education, counselling, and contraceptive provision are effective in increasing sexual knowledge, contraceptive use, and decreasing adolescent pregnancy[21] thus bringing these negative adolescent SRH outcomes to a bare minimum. The WHO noted that adolescent mothers (aged 10–19 years) face higher risks of eclampsia, puerperal endometritis and systemic infections than women aged 20–24 years, and babies of adolescent mothers face higher risks of low birth weight.[22] A narrative inquiry among 16 pregnant adolescents in Ghana revealed that being pregnant as an adolescent made them silent victims of a hash socio-economic environment, in which they experience significant financial deprivation, parental neglect and sexual abuse.[23] There is therefore a need for urgent interventions aimed at improving SRH utilization among adolescents. Also, there should be thorough assessment and appraisal of health facilities saddled with the responsibility of providing SRH services to ascertain if there are system factors that contribute to the lack of access and utilization of these services by this vulnerable group.

Only a few respondents had gone to the hospital/health facility, mainly private hospitals, for their SRH needs. This result was in contrast with the result of a study carried out in Ethiopia where it was reported that government health facilities were the most frequently utilized health facility for SRH needs, with low SRH service utilisation also reported among school adolescents.[24] However, Embleton et al.[25] reported that the majority of the adolescents (76%) utilized public facilities, with only 15% using private facilities for their SRH needs in Kenya. The difference in the findings could be a result of the geographical setting of the study or differences in the perceptions associated with government and public health facilities in the two geographical areas.

Pregnancy test and SRH counseling/information were the major SRH services utilized by adolescents in this study. This might be because most adolescents recognize the significant life-changing impact adolescent pregnant can have on one's life. Compared to other health issues that adolescents face, pregnancy is often perceived as an issue that demands urgent attention. On other hand, counseling services play a crucial role in empowering adolescents with the necessary knowledge and skills germane for navigating this important and critical stage of life. This finding aligns with other studies which reported that counseling, information and education on SRH issues, Volunteer counselling and testing (VCT) and HIV testing were the most frequently used SRH services.[13,25]

Adolescents' assumption of not having any SRH issues was the main reason for the non-utilisation of SRH services. This may be attributed to a lack of knowledge and understanding about their SRH needs. Unfortunately, this could be linked with an assumption among the respondents that the existence of sexual and reproductive health issues is the only valid reason which will warrant a visit to the health facilities. Such an assumption undermines the central role that health promotion, prevention and maintenance services play in facilitating optimal adolescent SRH. This result resonates with the results of Binu et al[26] where adolescents reported that not encountering any problem and believing that the services were not necessary, were the major reasons for not utilizing SRH services. This result, however, is in contrast with the findings of Envuladu et al[17] who reported a lack of privacy and confidentiality, a negative attitude of health care providers, the cost of services and commodities that they are unable to afford and the non-availability of the services for adolescents as the main reasons for non-utilisation or wanting to utilize SRH services.

The findings showed that age, class and pocket money giver were factors significantly associated with SRH service utilisation of adolescents. Adolescents 15 years

Print ISSN: 0189-9287 Online ISSN: 2992-345X

and above and those in higher classes particularly SS 2 students were associated more with utilisation compared to younger students and those in other classes. This might be because adolescents become more sexually active as they grow older with a high likelihood of engaging in risky sexual behaviour. Hence, they are more likely to access the services that benefit them.

Also, adolescents who received pocket money from non-parents were most associated with the utilisation of SRH services. This might be because, as found in the study, adolescents generally do not use SRH services when they do not have any issues. However, when given money specifically for SRH services by a non-parent source, they are more likely to visit the hospital and use these services. Thus, the mere availability of money at the disposal of the adolescent may not always translate to utilising the same to source for services. Rather, receiving money from non-parent sources was significantly most associated with utilisation. These non-parent sources include siblings, cousins and neighbours among whom may have peer influence on the adolescents. This finding emphasises strategies that incorporate peer mentorship and monitoring/harnessing the influence non-parent actors have in shaping the SRH of adolescents. Evidence has demonstrated that peer-based interventions can improve SRH knowledge and attitudes which could contribute to positive and risk-free SRH behaviour and utilisation of services.[27]

Additionally, Ismali et al.[16] reported that adolescents 18 years of age and older were approximately six times more likely to utilize SRH services than those <18 years. More use of SRH services among older adolescents could be as a result of more lifetime experiences in SRH matters with increasing age. However, this may imply that adolescents in this population may not be opportune to begin utilising SRH services early in the adolescent period. This might be disadvantageous because there are SRH services whose effectiveness depends on how early in the adolescent period they are received especially before sexual debut. Early intervention and preventive health services such as comprehensive sexuality education, contraception services and vaccination among others could improve adolescents' sexual and reproductive health and reduce associated morbidity and mortality.
The Logistic regression in tables 5 showed that age and having engaged in sex before were the significant predictors of adolescents' utilization of SRH services. Specifically, the odds of utilizing services increase 2 times for every 1-year age increase; and increase about 14 times for an adolescent that have once engaged in sex. This might be due to the fact that as adolescents grow older, they tend to be more aware of their SRH issues, and the need to seek and utilize SRH services. With each additional year, adolescents may experience more significant changes in their body. There may also be increased exposure to sexual education and changes in their relationships, necessitating the willingness to seek and use these services. This is consistent with the findings of Tilahun *et al*[28] and Gebreyesus *et al,*[29] where older adolescents were more likely to access and utilize SRH services.

Furthermore, adolescents who have been sexually active are more likely to recognize the importance and need for SRH services. They may visit the health facilities either to get condoms, contraceptions, pregnancy and STI testing and counselling, including HIV/AIDS test. They many also seek interventions like post-abortion care services when they experience negative consequences from unprotected sexual practice and unsafe abortion practices. This finding aligns with other studies which reported that prior sexual exposure was significantly associated with adolescents' SRH services utilization.[28, 30-31]

Implications of the findings of this study

The findings of the study underscore the need for educational interventions/programs and public health policies specifically designed to engage and educate adolescents about their SRH needs and available services. These programs should target younger adolescents and those in lower classes to ensure early engagement with SRH services. SRH services should also be made more accessible and affordable for them, while upholding privacy and confidentiality.

Comprehensive SRH education and services should be developed and implemented in schools. This will provide an accessible platform for students to learn about and access SRH services, thereby improving utilization.

Strengths and Limitations of the Study

The study effectively provided adequate information on the utilization of sexual and reproductive health services and its associated factors among adolescents in Queens secondary school, Enugu. It has a high return rate of 100% and the inclusion of adolescents with varied categories (age, class, family characteristics). This promotes the generalisability of the research findings to adolescents with similar characteristics.

The limitations of the study include: social desirability, response bias and the lack of access to students in

Print ISSN: 0189-9287 Online ISSN: 2992-345X

examination classes (JS 3 and SS 3). In addition, the low percentage of adolescents that utlise SRH services poses a limitation to the generalization of the conclusions drawn from the study.

Conclusion

The utilization of SRH services was generally low among the adolescents. Therefore, there is need for targeted educational interventions/programs and public health policies focused on increasing early awareness of SRH needs, importance of regular SRH check-ups and the SRH services available to the adolescents in order to improve utilisation. Healthcare providers, educators, and policy makers should develop effective age-appropriate strategies to ensure that all adolescents have the knowledge, resources, and support they need to make informed decisions about their SRH.

Declarations

Ethical Consideration: Ethical approval was obtained from the Health Ethics and Research Committee of the Enugu State Ministry of Health (Ref: MH/MSD/REC21/441).

Authors' Contribution: Study conception and design was done by ICE and NAC. Data collection was done by NAC and AIS. Data analysis and interpretation was done by all authors (ICE, NAC & AIS). First drafting of the article was done by ICE and NAC. ICE and AIS did a critical revision of the article. All the authors read and approved the final manuscript.

Conflict of interest: The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

Funding: The researchers received no funding for the research and/or publication.

Acknowledgment: The researchers acknowledge the principal, the entire management and the adolescents in the school used for the study

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