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ORIGINAL ARTICLE

From Exploits to Remedy: Sexual Behaviour and Utilisation of Reproductive Health Services among In-School Adolescents in a South-Western Nigerian Town.

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Keywords

Sexual behaviour;

Adolescents;

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ABSTRACT

Background: Adolescents are often involved in risky sexual behaviour. It has been reported that most male adolescents have multiple sexual partners, and most female adolescents use condoms inconsistently. This study assessed sexual behaviour, information sources on Sexual and Reproductive Health (SRH), knowledge of SRH, and utilization of RH services among senior secondary school students in Ile-Ife, Nigeria.

Methods: A cross-sectional study was conducted on 424 students randomly selected from six public secondary schools in Ile-Ife. The instrument was a pretested, self-administered questionnaire. The median score was used to categorise SRH knowledge into good and poor. Respondents who did not use condoms consistently, or had multiple sexual partners, or engaged in transactional sex were categorized as having engaged in risky sexual behaviour. Respondents who sought any RH service in a health facility were categorized as having utilized SRH services. Chi-Square was used for associations between categorical variables, while binary logistic regression was used to test for the predictors of utilization of SRH services.

Results: Over a quarter (26.9%) of the respondents had experienced a sexual debut, with 52.6% doing so before 14 years. Teachers were the most reported information source on pubertal changes (65.1%) and sexually transmitted infections (STIs) (71.7%). About 60.8% of respondents had good knowledge of SRH; 55.3% of respondents had multiple sexual partners and 55.9% of respondents had utilized RH services.

Conclusion: A good proportion of the respondents had good SRH knowledge; however, the prevalence of risky sexual behaviour was high. Adolescents need adequate SRH education and promotion.

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INTRODUCTION

Adolescents are individuals between the ages of 10 to 19 years.[1,2] They are described as persons between childhood and adulthood, or in the second decade of life. Adolescence is a vital period of rapid physical, mental and psychosocial growth that often determines the behaviour in adulthood. Adolescence is also an important period because some decisions made during this stage of life may have lifelong consequences. Adolescents are often involved in various categories of risks among which, sexual behaviour is considered one of the most common.[2]

Presently, there are about 1.2 billion adolescents worldwide,[1,2] and they make up 16% of the global population.[1] In Sub-Saharan Africa, adolescents

account for the greatest proportion (23%) of the region's population.[1] Adolescents make up about 22.3% of Nigeria's population.[3] To attain, promote and maintain good health, adolescents need the right information, including comprehensive sexuality education, sexual and reproductive health services that are appropriate and effective, within a supportive environment.

Sources of sexual and reproductive health (SRH) information among adolescents include parents, school, friends, media, siblings, magazines, the internet and movies among others. However, the top among these sources of SRH information include friends, the internet, movies, and mothers.[4] A study reported that the level of reproductive health knowledge among adolescents in Sub-Saharan Africa especially as regards menstruation, and STIs including HIV/AIDS, was low.[5]

The SRH services utilized by adolescents include medical check-ups, consultations, contraceptives, health education, counselling and testing for HIV/AIDS and STIs, as well as treatment rendered in healthcare facilities.[6] Studies have reported various proportions on utilization of SRH services by adolescents such as 24.7% in Nepal;[7] 28.8% in Ethiopia; [8] 43% in Malawi;9 7.8%,[10] 35%,[11] and 51% in Nigeria.[6]

A study in Ethiopia found that the prevalence of risky sexual behaviour among adolescents was 17.2%. The study assessed risky sexual behaviour by practices such as early sexual debut (before 14 years of age), having multiple sexual partners, having HIV testing, and inconsistent condom use in their sexual practices. A similar study in Mozambique revealed that more than half (57.1%) of the students had ever had sex, 68.4% among boys and 45.8% among girls. Among students who ever had sex, 41.5% reported early sexual debut (<14 years), 57.9% had multiple sexual partners, 25.0% had not used a condom, 42.0% had not used birth control at last sexual intercourse, and 59.4% engaged in multiple risky sexual behaviour.[13]

It is estimated that one in every 20 adolescents (5%) in Nigeria will contract a sexually transmitted infection (STI) each year.[3] Also, half of all cases of HIV infections in Nigeria occur among people under the age of 25 years, while about 40% of new HIV infections occur among young people.[3] The reported median age at sexual debut in that study was 17.6 and 21.1 years for females and males respectively, while the median age at first marriage was 18.1 and 27.2 years for females and males respectively.[3]

In addition, a Nigerian study conducted in Ikenne, Ogun State revealed that the prevalence of risky sexual behaviour among adolescents was 19.2%[14.] Similarly, another study in Ibadan, Oyo State reported that a higher proportion of males (50.9%) had their sexual debut before they turned 16 years, and had multiple sexual partners (71.2%); while females engaged more in inconsistent condom use (67.7%) and transactional sex (73.3%).[15]

Since the 1994 International Conference on Population Development (ICPD) in Cairo, Egypt, adolescent-friendly reproductive health services (AFRHS) have been recognized as an appropriate and effective strategy to address the SRH needs of adolescents.[16] Despite constituting 16% of the world's population,[1] the sexual and reproductive health needs of adolescents have neither been researched nor addressed adequately, especially in Africa.[6]

Adolescent sexual and reproductive health (ASRH) matters have been neglected over the years despite the consequences that countries face for not giving it the deserved attention. As a result, adolescents across the world face numerous challenges such as early pregnancy and parenthood, difficulties in accessing contraception and safe abortion, and high rate of *HIV* and sexually transmitted infections (STIs).[17]

There is a need to evaluate adolescents' sexual exploits (acts and adventures) and utilization of RH services in relation to their sexual and reproductive health needs. Hence, this study assessed the sexual behaviour, information sources, knowledge of SRH, and utilization of SRH services among adolescents in Ile-Ife, Osun State, Nigeria. The findings from this study will be relevant to adolescents, parents, teachers, academia and the government by providing evidence for relevant interventions and remedies needed to address the diverse needs and contexts of adolescents' SRH problems/issues in the region.

METHODOLOGY

This descriptive cross-sectional study was conducted among senior secondary school students attending government-owned institutions in Ile-Ife, Osun State, South-West Nigeria. The city of Ile-Ife is divided into two LGAs: Ife East and Ife Central with headquarters in Oke-Ogbo and Ajebandele areas of the city respectively. Adolescents below 18 years who gave assent (with parental consent), and adolescents above 18 years who gave consent were included in the study. Adolescents who were absent at the time of the study were excluded.

A sample size of 385 was derived from the sample size formula for estimating a single proportion using a

prevalence of 51% (0.51) obtained from a study among in-school adolescents in Ilorin, Kwara State, Nigeria who were aware that sexually transmitted diseases can be contracted through sex.[18] A 10% non-response rate was anticipated; therefore, the adjusted sample size was 424. A multistage sampling technique was used to select the respondents as follows:

Stage 1: Three mixed secondary schools each were randomly selected by balloting from Ife-Central and Ife-East LGAs, making a total of six schools.

Stage 2: Proportional allocation was used to determine the number of students that were selected from each of the six schools, such that, 70 students each were selected from four schools, while 72 students each were selected from the remaining two schools.

Stage 3: Proportional allocation was also used to determine the number of students that were selected from each of the three senior secondary classes (SS 1, 2 and 3) in each of the six schools.

Stage 4: Simple random sampling (computer-generated random numbers) was used to select the final respondents from each class using the class register as a sampling frame.

A semi-structured questionnaire was used as the survey instrument. The questionnaire was developed by the authors after a careful review of relevant literature. The questionnaire had five sections, which include: Socio-demographic and family characteristics, questions assessing sources of sexual and reproductive health information, level of sexual and reproductive health knowledge, sexual behaviour and utilization of sexual and reproductive health services. The questionnaire was pre-tested among 43 senior secondary school students at a secondary school in Ile-Ife, which was not among the selected schools. The pre-test school is about 8km from the nearest selected school. The questionnaires were filled by the respondents in a self-administered manner, with the guidance of the researchers.

Adolescents' level of SRH knowledge was categorised by calculating the median score of all their responses having attached a value of 1 to a "Yes" response, and 0 to a "No/I don't know" response. Those who scored the median and above were categorized as having good knowledge while scores below the median were categorized as poor knowledge. The median score was used for categorization due to the non-normal distribution of their knowledge scores.

Section B of the questionnaire assessed the information sources of SRH (Pubertal changes, STIs, Contraception) among respondents. The options for each information source were often, occasionally, or never; so, they were ranked according to the number of "often" responses they got (from the highest to the lowest). Section C of the questionnaire assessed the risky sexual behaviour of respondents. Respondents who either did not use condoms consistently for every sexual intercourse or had multiple sexual partners or patronized commercial sex workers or engaged in transactional sex within the last 12 months prior to the study were classified as having engaged in risky sexual behaviour. Section D of the questionnaire assessed the respondents' utilization of RH services. Respondents who had sought care for any reproductive health-related issue at any health facility were classified as having utilized RH services.

The data obtained were analysed using IBM Statistical Package for Service Solutions (SPSS) version 20. Univariate analysis (percentages and tables) was used to present the respondents' socio-demographic characteristics, SRH information sources, knowledge of SRH, risky sexual behaviour and utilization of RH services. Chi-square was used to test the association between the respondents' SRH knowledge and utilization of RH services, as well as between the respondents' sexual behaviour and utilization of RH services. Multiple logistic regression was used to determine the predictors of respondents' utilization of RH services. The level of significance was set at a p-value less than 0.05.

Ethical approval for this study was obtained from the Health Research and Ethics Committee of the Institute of Public Health, Obafemi Awolowo University, Ile-Ife (IPH/OAU/12/1307). Permission to carry out the study among the in-school adolescents was obtained from the Zonal Inspector of Education, Ile-Ife Zone of Osun State Ministry of Education, and the principals of the selected secondary schools.

In addition to the written informed consent from their parents, verbal assent (for adolescents less than 18 years) or consent (for adolescents 18 years and above) was also obtained from all the respondents after an explanation of the purpose of the research. Considering the sensitive nature of this study, the participants may have exhibited some social desirability bias in their responses. This was mitigated by assuring them of the total anonymity of their identities and the confidentiality of their responses.

RESULTS

Four hundred and twenty-four (424) questionnaires were distributed among the six selected secondary schools in the two Local Government Areas (LGAs) that makeup Ile-Ife. All the questionnaires were returned giving a response rate of 100%.

Sociodemographic Characteristics of Respondents
Table 1 shows the sociodemographic characteristics of respondents. Of the four hundred and twenty-four respondents, 58.5% (248) were males while 41.5% (176) were female. A higher percentage of the respondents (46.6%) were between the ages of 14 – 16 years (middle adolescents). The majority of the respondents were of the Yoruba ethnic group (81.6%) and lived with their parents (73.8%).

Respondents' Sexual Behaviour
Table 2 shows the sexual behaviour of the respondents. A little more than a quarter (26.9%) of the respondents had experienced a sexual debut, while 73.1% had not. A little above half (52.6%) of them had their sexual debut when they were less than 14 years old. Also, only 48 (42.1%) of the sexually exposed respondents used protection at their first sexual intercourse, while 60 (52.6%) respondents had engaged in transactional sex. In the same vein, 55.3% of respondents had multiple sexual partners in the last 12 months (prior to the time of this study). Furthermore, 36.8% of the sexually exposed respondents used protection during their last sexual intercourse, while 42.1% of them have had a history of sexually transmitted infections (STI).

Sexual and Reproductive Health Information Sources among Respondents
Table 3 presents the respondents' sources of information on pubertal changes, STIs, and contraception respectively. The main source of information among respondents on pubertal changes was often schoolteachers (65.1%), while the second-ranked source was parents (63.2%).

Concerning STIs, the source of information was often schoolteachers (71.7%), and the second most ranked source was health officials (71.2%). The main source of information reported as often by respondents on contraceptive use was the internet (57.1%), while friends ranked second as a source of information on contraception (54.0%).

Knowledge of the Respondents on Sexual and Reproductive Health
Table 4 presents the respondent's level of knowledge on sexual and reproductive health. About 60.8% of the respondents had good knowledge while 39.2% had poor knowledge of SRH.

Utilization of RH Services by Respondents
Table 5 shows the utilization of SRH services by the respondents. More than half (55.9%) of the respondents had sought medical care for reproductive health issues. About a third (33.8%) went to a government hospital, while 25.3% went to a private hospital/clinic to access health services.
Table 6 shows that the knowledge of SRH was significantly associated with the utilization of reproductive health services as respondents who had good knowledge of SRH utilized the SRH services more than those who had poor knowledge of SRH (67.8% vs 37.3%, $p < 0.001$).

Table 7 shows that the sexual behaviour of the respondents was significantly associated with their utilization of RH services. The three indices of sexual behaviour that were considered were if there was the use of protection at sexual debut, history of engaging in transactional sex, and the number of sexual partners ever had. Respondents who had multiple sexual partners had a lower utilization of SRH services compared with their counterparts who had no sexual partner or a single sexual partner (55.7% for no partner, 1.6% for single partner, 0% for multiple partners, $p < 0.001$).

Table 8 shows that respondents' SRH knowledge was a significant predictor of the utilization of RH services. Using good SRH knowledge as the reference category (odds ratio = 1) for SRH knowledge, respondents with poor SRH knowledge had 44% (odds ratio = 0.560, 95% CI = 0.376-0.834, p = 0.004) less the odds of utilizing RH services than respondents with good SRH knowledge.

DISCUSSION

The prevalence of risky sexual behaviours among the respondents was high, as less than half of the respondents used a condom at their sexual debut and one-third at their last sexual experience. More than half of the respondents had multiple sexual partners in the past 12 months while about half had a previous history of STIs. These risky sexual behaviours can result in contracting sexually transmitted infections, unwanted pregnancies and unsafe abortions. These findings are in agreement with the findings from similar studies done in Ethiopia.[19,20] This similarity may be due to the fact that these studies were carried out in sub-Saharan Africa.

The respondent's major sources of information on SRH issues especially pubertal changes and STIs were

from their schoolteachers and parents respectively. This may be because teachers and parents are the people most adolescents are more likely to interact with, and possibly because adolescents trust their teachers and parents to give them the correct information on SRH. This finding was contrary to another study in Tanzania that reported peers and the media as the main sources of SRH information among adolescents.[21] This may be because the respondents in the Tanzanian study felt more comfortable discussing SRH among themselves than with their teachers or parents. In addition, the respondents may have preferred the media because it gave them more privacy.

Less than two-thirds of the respondents had good knowledge of SRH. This may be because they have not been adequately educated on SRH. Sexual and Reproductive Health issues are influenced by cultural and religious sentiments in this part of the world, especially among adolescents. The respondents' knowledge of SRH in this study was consistent with the knowledge of SRH among adolescents in Ibadan, Nigeria, [22] and Nicaragua.[23] This may be due to similarities in the sociodemographic characteristics of the adolescents in both countries.

More than half of the adolescents had used reproductive health services, and government-owned hospitals were the most visited. Two studies conducted in Ethiopia corroborate this study's findings. They reported that the utilization of RH services among adolescents was 64% and 69.1% respectively.[24,25] However, this was in contrast with the finding from another Ethiopian study that found that utilization of RH services by adolescents was 38.5%.[26] While all these studies were carried out in Sub-Saharan Africa, the difference may be due to SRH knowledge, availability, accessibility, acceptability and affordability of RH services in the concerned locations.

This study also showed that reproductive health services utilization was significantly associated with knowledge of SRH and the sexual behaviour of adolescents. Respondents who had good knowledge of SRH utilized RH services more than those who had poor knowledge. Knowledge of SRH was also a significant predictor of utilization of RH services. This is expected as the knowledge of SRH will translate into the intention to use and eventual utilization of SRH services. It is very unlikely that adolescents will utilize RH services they did not know about in the first place. This finding is consistent with the result of a study done in Ogun State, Nigeria.[6] Ogun State is in the same region of Nigeria as the location where this study was carried out.

Likewise, respondents in this study who had risky sexual behaviour especially, having multiple sexual partners significantly utilized RH services less when compared with their counterparts who either had no sexual partner or a single sexual partner. In fact, none of the respondents who reported having multiple sexual partners at the time of this study had utilized RH services for adolescents. Generally, comprehensive SRH education is a component of RH services for adolescents. Therefore, adolescents who utilize RH services are expected to have been educated on the importance of abstinence and mutual faithfulness to a single uninfected partner as ways to prevent contracting STIs. In addition, this information is expected to translate into practice.

This significant association between risky sexual behaviour and the utilization of RH services among the respondents was in agreement with the finding from an Ethiopian study that reported a higher utilization of RH services among adolescents without risky sexual behaviour when compared with their counterparts that engaged in risky sexual behaviour, especially having multiple sexual partners.[27] This may also be due to the fact that adolescents who are nonchalant with regard to their sexual behaviour may also display such nonchalance concerning the utilization of RH services even if they knew about them.

CONCLUSION

The findings from this study suggest that in-school adolescents in Ile-Ife had good knowledge of sexual and reproductive health issues. Despite this knowledge, there was a high prevalence of risky sexual behaviour among adolescents which may result in STIs and teenage pregnancies in addition to other complications. This study also found that there was fair utilization of reproductive health services among adolescents. Good SRH knowledge was associated with SRH services utilization by adolescents. However, adolescents who had poor knowledge of SRH and engaged in risky sexual behaviour had less utilization of RH services.

Parents, teachers, and health workers should provide the right information on SRH to adolescents to improve their SRH knowledge and awareness about the complications of risky sexual behaviour. The government should also ensure that adolescent-friendly health centres are adequately established and functioning in Ile-Ife, and all over the country.

AUTHOR CONTRIBUTION

MYI conceptualised and supervised the research; TOO co-supervised the research; TMO, IGO, GDO, TOO and NEO were involved in the data collection and analysis; MYI, NEO and FAO revised the manuscript; all authors read and approved the final manuscript.

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CONFLICT OF INTEREST

The authors declare that they have no competing interests.

Table 1: Sociodemographic Characteristics of the Respondents

Variables	Frequency (N=424)	Percentage (%)
Sex		
Male	248	58.5
Female	176	41.5
Age (years)		
Less than 14	92	21.6
14-16	197	46.6
17-19	135	31.8
Religion		
Christianity	274	64.6
Islam	140	33.0
Others	10	2.4
Ethnicity		
Yoruba	346	81.6
Igbo	51	12.0
Hausa	18	4.3
Others	9	2.1
People respondents live with		
Parents	313	73.8
Aunt/Uncle	63	14.9
Grandparents	23	5.4
Others	25	5.9

Table 2: Sexual Behaviour of Respondents.

Variable	Frequency (N = 424)	Percentage (%)
Ever had sex		
Yes	114	26.9
No	310	73.1
Age at first sex (sexual debut)		
Less than 14 years	60	52.6
14-16 years	42	36.8
17 years and older	12	10.5
Used a condom at first sexual intercourse		
Yes	48	42.1
No	66	57.9
Ever engaged in transactional sex before		
Yes	60	52.6
No	54	47.4
Used a condom at the last sexual intercourse		
Yes	42	36.8
No	72	63.2
Ever had a Sexually Transmitted Infection		
Yes	48	42.1
No	66	57.9
Number of sexual partner(s) in the last 12 months		
0	6	5.2
1	45	39.5
2	32	28.1
3	13	11.4
Greater than 4	18	15.8

Table 3: Respondents' SRH Information Sources.

Variable	Never n(%)	Occasionally n(%)	Often n(%)	Total n(%)
On Pubertal Changes				
School teachers	118 (27.8)	30 (7.1)	276 (65.1)	424 (100.0)
Parents	96 (22.6)	60 (14.2)	268 (63.2)	424 (100.0)
Health officials	96 (22.6)	67 (15.8)	261 (61.6)	424 (100.0)
Friends	98 (23.1)	91 (21.5)	235 (55.4)	424 (100.0)
Internet	165 (38.9)	31 (7.3)	228 (53.8)	424 (100.0)
On Sexually Transmitted Infections				
School teachers	84 (19.8)	36 (8.5)	304 (71.7)	424 (100.0)
Health officials	104 (24.5)	18 (4.2)	302 (71.2)	424 (100.0)
Friends	91 (21.5)	60 (14.2)	273 (64.4)	424 (100.0)
On Contraceptives				
Internet	138 (32.5)	44 (10.4)	242 (57.1)	424 (100.0)
Friends	162 (38.2)	33 (7.8)	229 (54.0)	424 (100.0)
School teachers	176 (41.5)	25 (5.9)	223 (52.6)	424 (100.0)

Table 4: Respondents' Knowledge of SRH.

Knowledge Level	Frequency (N= 424)	Percentages (%)
Good	258	60.8
Poor	166	39.2

Table 5: Respondents' Utilization of SRH services.

Variables	Frequency (n)	Percentage (%)
Sought medical care on reproductive health issues		
Yes	237	55.9
No	187	44.1
Total	**424**	**100**
Place where respondent received care		
Government hospital	80	33.8
Private hospital/clinic	60	25.3
Primary health care center	55	23.2
Pharmacy store/chemist shop	24	10.1
Others	18	7.6
Total	237	100

Table 6: Association between respondents Knowledge of SRH and Utilization of RH Services.

Knowledge	Utilised RHS		Test of significance
	Yes (%)	No (%)	
Good n=258	175 (67.8)	83 (32.2)	$X^2 = 38.066$ df = 1
Poor n=166	62 (37.3)	104 (62.7)	*p<0.001

*Statistically significant

Table 7: Association between Respondents' Sexual Behaviour and Utilization of RH Services.

Variables	Utilised of RHS		Chi-square
	Yes (%)	No (%)	
Used condom at first sexual intercourse			
Yes	0 (0)	48 (100)	X^2=9.75
No	12 (18.2)	54 (81.8)	df= 1
			*p = 0.001
Ever engaged in transactional sex			
Yes	12 (20)	48 (80)	$X^2 = 12.07$
No	0 (0)	54 (100)	df= 1
			*p <0.001
Number of sexual partners			
Single partner	1 (1.6)	62 (98.4)	X^2= 74.41
Multiple partners	0 (0)	13 (100)	df = 2
None	194 (55.7)	154 (44.3)	*p<0.001

*Statistically significant

Table 8: Binary Logistic Regression for Predictors of Respondents' Utilization of RH Services

Variable	Odds Ratio	95% CI for Odds Ratio		p value
		Upper Value	Lower Value	
SRH Knowledge				
Good (Reference)	1.000			
Poor	0.560	0.376	0.834	*0.004

*Significant.

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