ORIGINAL RESEARCH ARTICLE

Sexual exposure, awareness, and knowledge of long-acting reversible contraceptives among female university students in Ekiti State, Nigeria

DOI: 10.29063/ajrh2023/v27i6s.3

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Abstract

Unplanned and unintended pregnancies have become major medical, social and public health issues worldwide. The objective of this study was to determine sexual exposure, awareness and knowledge of long active reversible contraceptives (LARC) among female undergraduate students in public and private universities in Ekiti State, Southwest Nigeria. A comparative cross-sectional study was carried out among 428 female university undergraduates in Ekiti State (208 students in public and 210 students in private) using a multi-stage sampling technique. Data were obtained using a semi-structured questionnaire and analyzed using IBM SPSS version 23. P-value <0.05 was taken as significant. The mean age of respondents was 21.1±2.5years in public and 19.3±2.1years in private university. 53% of public university students and 30% of private university students have had sexual intercourse. While 41.3% of public university students were aware of LARC, 37.1% of the private university students were aware. The knowledge of LARC among the public university students was lower (23.6%) as compared to those in private university (33.3%). We conclude that while sexual exposure is higher among public university students than in private, the awareness of LARC was higher in public than private universities. Continuous campaign programmes to university students on the benefit of LARC is recommended. *(Afr J Reprod Health 2023; 27[6s]:19-27).*

Keywords: Awareness, knowledge, LARC, students, Ekiti State

Résumé

Les grossesses non planifiées et non désirées sont devenues des problèmes médicaux, sociaux et de santé publique majeurs dans le monde entier. L'objectif de cette étude était de déterminer l'exposition sexuelle, la sensibilisation et la connaissance des contraceptifs réversibles actifs longs (LARC) chez les étudiantes de premier cycle dans les universités publiques et privées de l'État d'Ekiti, au sud-ouest du Nigéria. Une étude transversale comparative a été menée auprès de 428 étudiantes universitaires de premier cycle dans l'État d'Ekiti (208 étudiantes en public et 210 étudiantes en privé) à l'aide d'une technique d'échantillonnage à plusieurs degrés. Les données ont été obtenues à l'aide d'un questionnaire semi-structuré et analysées à l'aide d'IBM SPSS version 23. La valeur P <0,05 a été considérée comme significative. L'âge moyen des répondants était de 21,1 ± 2,5 ans dans le public et de 19,3 ± 2,1 ans dans le privé. 53% des étudiants des universités publiques et 30% des étudiants des universités privées ont eu des rapports sexuels. Alors que 41,3% des étudiants des universités publiques étaient au courant du LARC, 37,1% des étudiants des universités privées étaient au courant. La connaissance du LARC parmi les étudiants des universités publiques était plus faible (23,6%) par rapport à ceux des universités privées (33,3%). Nous concluons que si l'exposition sexuelle est plus élevée chez les étudiants des universités publiques que dans le privé, la sensibilisation au LARC était plus élevée dans les universités publiques que privées. Des programmes de campagne continus auprès des étudiants universitaires au profit du LARC sont recommandés. *(Afr J Reprod Health 2023; 27[6s]:19-27).*

Mots-clés: Sensibilisation, Connaissances, LARC, Étudiants, État d'Ekiti

Introduction

Unplanned and unintended pregnancies have become major medical, social and public health issues worldwide[1,2]. Unintended pregnancy is a risk factor for abortion, disruption of education, future unemployment and poor socio-economic status[1,3]. Young people currently comprise a large proportion

of the world's population including low and middle income countries. The proportion of young women reporting unintended pregnancy and unmet need for contraception is increasingly high (about 30% of all births) in sub-Saharan Africa[3-6]. Of the 182 million annual pregnancy in low-income countries, 76 million are unintended and 66% of these are among non-users of contraception[7]. Two- thirds of unsafe abortions occur among women between 15 and 30 years old and almost 14 % of unsafe abortion in developing countries occur among women 20 years old or younger[3].

Nigeria has a youthful population vulnerable to unintended pregnancies because of early age of puberty and first intercourse, sexual activity experiments, multiple sexual partners, alcohol and illicit drug intake, socio-economic problems, coercion, easier access to media that glamorize sex, peer influence with less parental control and with less likelihood to use contraception[7]. The Nigeria Demographic and Health Survey, 2018 reveals that 19% of women begin sexual activity before the age of 15years while more than half (57%) begin before the age of 18[8]. The median age of first sexual intercourse according to the report is 17.2years and 21.7years for female and male respectively[8].

Youths are most often at the beginning of exploration of their sexuality and with tertiary education, most are often free of parental guidance, with great peer influence, use of alcohol and other illegal substitutes, the risk of unintended pregnancies is relatively high[10-12]. Every year, about 16 million adolescents aged 15-19years give birth with increased consequences of maternal mortality and school dropout[9].

In order to avert unintended pregnancies and consequent adverse outcomes, contraception has been prioritized as a key intervention among women of reproductive age groups[5,13-15]. It has been documented that over 80% of tertiary institution students in Nigeria had their first sexual intercourse at ≤20years of age according to a study carried out in Kano State, Nigeria while only 16% of this group of sexual active students used any form of contraceptive or the other[50]. Furthermore, about twenty-five (25%) of female students in tertiary institution in Nigeria had an abortion at one time or the other[7], however, the uptake of contraception among sexually active tertiary institution students still ranges low between 15-27%[7,10,21].

While all forms of birth control methods can be used by young women[16], LARC methods are highly effective especially for youths who are unmarried or nulliparous due to its long lasting effect with less frequent usage and rapid return to fertility[3,17]. LARC such as intrauterine devices (IUD) and implant provides uninterrupted protection to women for 3 to 12 years and by far the most effective (99% or greater) and very safe[18,19]. Long acting reversible contraception (LARC) has very few contraindications and there is no age barrier to their use by adolescent and young adults and when LARC is discontinued, return to fertility is prompt[18, 20].

Poor knowledge, access and the expertise needed to provide LARC commodities has been well documented to contribute to its uptake[23]. It has also been shown that of women who were not practicing contraception, fortyfour percent (44%) were not aware of family planning services, while twenty two percent (22%) either do not have access or cannot afford it or are afraid of its side effects[21].

Studies among tertiary institution students in Nigeria revealed a contraceptive prevalence rate of 15.6% and 27.6% among students in the north and south-west located institutions respectively with a shift towards emergency contraception, condoms and pills[8,16,20]. Data on prevalence of LARC use among university students are sparse though prevalence rates of 1-23% have been reported among sexually active students in some African countries[3,6]. Also, studies comparing LARC use among university students in private and public universities in Nigeria were not available during the time of this study and looking at the increase in the establishment of private university with settings different from the public, a study aimed at studying the difference in private and public setting is important.

The study is aimed at determining the sexual exposure of female undergraduate students in public and private universities in Ekiti State and their awareness and knowledge of Long Acting Reversible Contraceptives in order to prevent unplanned unintended pregnancies among them.

Methods

This study was carried out in Ekiti State, Southwest Nigeria. The State was created out of the old Ondo State in October, 1996 with the headquarters located in Ado-Ekiti. Ekiti State has 16 Local Government Areas (LGAs). It lies south of Kwara and Kogi States, and east of Osun State, while it is bounded in the east and in the south by Ondo State. Ekiti state has three senatorial districts: Ekiti Central, Ekiti South and Ekiti North senatorial districts. Ekiti Central and Ekiti North have five Local Government areas, while Ekiti South has six Local Government areas.

The study was a comparative cross sectional study among female undergraduate students in public (Federal University Oye) and a private (Afe Babalola University Ado-Ekiti) universities in Ekiti State. Pregnant women and medical students (to avoid information bias) were excluded from the study. A total of 418 students participated in the study (208 from public and 210 from private). Sample size for this study was determined by using the formula for comparison of two proportions[25];

$$n = \frac{(U+V)^2[P_1\,(100-P_1)+P_2\,(100-P_2)]}{(P_1-P_2)^2}.$$

The value of U(Standard Normal Deviate (SND) corresponding to the power of 90%) and V (Standard Normal Deviate (SND) corresponding to confidence level of 95% of 95%) was put at 1.645 and 1.96 respectively while P_1 and P_2 of 23.4% and 10.2% respectively for proportion of LARC use in public and private university respectively was used[3,25]. All-female undergraduate students studying at both institutions who gave written consent to participate in the research and fell within the research sample were recruited in the study.

A multistage sampling technique was used to select the eligible students for this study. In the first stage, Afe Babalola was purposively selected being the only private university in Ekiti State while Federal University Oye was selected using simple random sampling by balloting against Ekiti State University. In stage two, three faculties / colleges were selected by simple random sampling by balloting from each of the universities. In the third stage, three departments were selected by simple random sampling from the list of departments in each of the 3 faculties / colleges earlier selected in stage two from the private and public institutions giving rise to nine (9) departments per institution, Questionnaires were allocated equally to each department. In the final stage, systematic sampling technique was used to select respondents at calculated sampling interval obtained by dividing the sampling frame (number of students per department) by the number of allocated questionnaire (25). The index respondent was selected using simple random sampling by balloting. Where selected respondent decline participation, replacement was done by picking the next person on the list and subsequent application of sample interval from the picked respondents.

Data analysis

Data was collected between November, 2019 and January, 2020 using self-administered semi-structured questionnaire and was analyzed using SPSS (statistical package for the social sciences) statistics version 23. Categorical variables (e.g. religion, ethnicity etc.) were summarized as tables, proportions and charts. Continuous variables (e.g. age) was summarized as means (standard deviation) and compared between the public and private universities. For questions that have the option of yes, no, and don't know {the correct answers were scored one (1) while the incorrect answer and don't know were scored zero (0)}, then frequency tables and cross tabulations was be generated. Percentage sexual exposure, awareness and knowledge of LARC among respondents were determined. Chi-square test was used to determine statistical significance of observed differences in cross tabulated variables. Level of significance was predetermined at a p-value of less than 0.05 at 95% confidence level.

Ethical consideration

Ethical clearance for this study (Ref No. ERC/2018/09/14/142A) was obtained from the Health Research and Ethical Committees of the Federal Teaching Hospital, Ido Ekiti. Permission was also sought from the university authority to conduct the research among undergraduate students of the university and informed consent was obtained

from the respondents. Confidentiality was ensured through anonymous distribution of the questionnaire.

Results

Socio-demographic characteristics

More than half (59.6%) of students in public university fell within the age of 20-24years with the mean age of 21.1 ± 2.5 and age range of 28-16years while 57.6% of the students in private university were less than 20years with mean age of 19.3± 2.1 and age range of 28-15years. There was significant difference in the mean age of students in the public and private universities (p= <0.001).

Table 1: Socio-demographic characteristics of respondents compared between the public and private universities

Variable	Public n = 208 n (%)	Private n = 210 n (%)	Chi square	p-value
Age of respondent (in years)				
<20	63 (30.0)	121 (57.6)	35.812	**<0.001***
20 – 24	124 (59.6)	84 (40.0)		
25 – 29	21 (10.1)	5 (2.4)		
Mean age ± SD	21.1 ± 2.5	19.3 ± 2.1	7.861[t]	**<0.001***
Age Range	16 – 28	15 – 28		
Level				
100	30 (14.4)	39 (18.6)	7.350	0.119
200	41 (19.7)	23 (11.0)		
300	59 (28.4)	69 (32.9)		
400	47 (22.6)	44 (21.0)		
500	31 (14.9)	35 (16.7)		
Religion				
Islam	35 (16.8)	54 (25.7)	4.925	**0.026***
Christianity	173 (83.2)	156 (74.3)		
Marital Status				
Married	12 (5.8)	7 (3.3)	1.429	0.232
Single	196(94.2%)	203(96.7%)		
Ethnicity				
Yoruba	170 (81.7)	118 (56.2)	41.771	**<0.001***
Hausa	14 (6.7)	18 (8.6)		
Igbo	21 (10.1)	40 (19.0)		
Others	3 (1.5)	34 (16.2)		

Majority of the university students in both public (83.2%) and private (74.3%) were Christians while others were Muslims. Also, majority of the students were single in both public (94.2%) and private (96.7%) universities; however, the married students in public university (5.8%) were higher than that of private with only (3.3%). There was significant difference in the religion (Christianity) of the two groups which was significant at p= 0.026 but there was no difference in the marital status of the students in the two universities (p= 0.232). (Table 1).

Sexual exposure of female undergraduate students

Table 2: Sexual history of respondents compared between the public and private universities

Variable	Public n= 208 n (%)	Private n = 210 n (%)	Chi square	p-value
Ever had sexual intercourse				
Yes	112 (53.8)	63 (30.0)	24.415	**<0.001**
No	96 (46.2)	146 (70.0)		
The last time you had sex	**n_2 = 112**	**n_2 = 63**		
< 1 week ago	19 (17.0)	9 (14.3)	10.426	**0.015**
1 week ago to < 1 month ago	35 (31.2)	35 (55.6)		
1 month to < 1year	30 (26.8)	10 (15.9)		
> 1 year ago	28 (25.0)	9 (14.3)		

More than half (53.8%) of the public university students had engaged in sexual intercourse at one time or the other as against less than one third (30.0%) in private university, and the difference in sexual exposure was significant (p= <0.001). For those who were sexually exposed in both institutions, a good percentage (31.2%) in public and (55.6%) in private had sexual intercourse within a week to a month period prior to the study. (Table 2).

Awareness of long acting reversible contraceptives

Less than half (41.3%) of public university students and 37.1% of private university students were aware of LARC. There was no significant difference in LARC awareness between the two groups of student at p = 0.379. The sources of information in both public and private university settings were majorly healthcare practitioners (48.8% and 46.2%),

Table 3: Respondents' levels of awareness about long acting reversible contraception compared between the public and private universities

Variable	Public n = 208 n (%)	Private n = 210 n (%)	Chi square	p-value
Ever heard of LARC				
Yes	86 (41.3)	78 (37.1)	0.774	**0**.379
No	122 (58.7)	132 (62.9)		
Where, if YES*	***n₁ = 86***	***n₁ = 78***		
Healthcare Practitioner	42 (48.8)	36 (46.2)	0.118	0.731
Health Facility	11 (12.8)	9 (11.5)	0.060	0.807
Pharmacy shop	13 (15.1)	1 (1.3)	10.026	**0.002**
Social media and internet	31 (36.0)	35 (44.9)	1.325	0.250
Friends	20 (23.3)	22 (28.2)	0.526	0.468
From mother	13 (15.1)	11 (14.1)	0.034	0.854
T.V., Radio, Newspaper	15 (17.4)	14 (17.9)	0.007	0.932
Books & Medical Journals	2 (2.3)	4 (5.1)	0.912	0.340

Table 4: Knowledge of LARC compared between respondents in public and private universities

Variable	Public n (%)	Private n (%)	Chi square	p-value
Knowledge of LARC among all respondents	**n = 208**	**n = 210**		
Good knowledge (≥ 50%)	49 (23.6)	70 (33.3)	4.904	**0.027**
Poor knowledge (< 50%)	159 (76.4)	140 (33.3)		
Knowledge of LARC among sexually active respondents	**n=112**	**n=63**		
Good (≥ 50%)	32 (28.6)	34 (54.0)	11.071	**0.00**1
Poor (< 50%)	80 (71.4)	29 (46.0)		

pharmacy shop (15.1% and 1.3%), social media and internet (36.0% and 44.9%), friend (23.3% and 28.2%), mass media (17.4% and 17.9%), mother (15.1% and 14.1%) respectively. (Table 3).

Knowledge of LARC

A limited number of the respondents in both settings had good knowledge of LARC. However, private university students showed relatively higher knowledge (33.3%) compared to public university students with (23.6%) and this difference was statistically significant at p = 0.027. (Table 4).

Among the sexually active students, about one quarter in public university have good knowledge of LARC while about half of their counterparts in private have good knowledge (scored 50% and above of the cumulative knowledge score of questions as regards definition, duration, side effects, efficacy etc.). This difference in knowledge of LARC was statistically significant at p = 0.001. (Table 4).

Relationships between socio-demographics and knowledge of LARC compared among sexually active respondents in public and private universities

Sexually active undergraduate students who practiced Islamic religion had better knowledge of LARC in both Public and Private Universities than Christians. However, while the difference in the knowledge is not significant in public university (p = 0.104), it was significant in the private university (p = 0.001).

Respondents of Igbo ethnic group in the public university showed better knowledge of LARC (50%) than other ethnic groups while the Yoruba ethnic group showed better knowledge (73.8%) in the private university. The difference in knowledge across the tribe in the private is statistically significant (p = <0.001). (Table 5)

Binary logistic regression for the predictors of LARC knowledge

Predictors for LARC knowledge among undergraduate university students as found in this study were religion (Islam with p value 0.001 and about 4 times better knowledge of LARC than Christianity, AOR 4.077 in public; p value 0.016 and about 6 times better knowledge of LARC than Christianity, AOR 6.396 in private) and being married (with p value 0.048 and about 3 times better knowledge of LARC than single, AOR 2.921 in

Table 5: Socio-demographics and sexual characteristics compared with Knowledge of LARC among sexually active respondents from the public and private universities

Variable	Public Knowledge			Private Knowledge		
	Good n (%)	Poor n (%)	Total N=112	Good n (%)	Poor n (%)	Total N = 63
Age of respondent (in years)						
<20	4 (18.2)	18 (81.8)	22	14 (56.0)	11 (44.0)	25
20 – 24	19 (26.4)	53 (73.6)	72	15 (45.5)	18 (54.5)	33
25 – 29	9 (50.0)	9 (50.0)	18	5 (100.0)	0 (0.0)	5
Statistical test	*χ^2 = 5.382, p = 0.068*			*χ^2 = 5.269, p = 0.072*		
Level						
100	3 (20.0)	12 (80.0)	15	3 (33.3)	6 (66.7)	9
200	3 (23.1)	10 (76.9)	13	4 (57.1)	3 (42.9)	7
300	10 (30.3)	23 (69.7)	33	20 (66.7)	10 (33.3)	30
400	13 (37.1)	23 (69.7)	35	6 (54.5)	5 (45.5)	11
500	13 (37.1)	13 (81.2)	16	1 (16.7)	5 (83.3)	6
Statistical test	*χ^2 = 2.797, p = 0.0.592*			*χ^2 = 6.880, p = 0.142*		
Religion						
Islam	8 (44.4)	10 (55.6)	18	20 (80.0)	5 (20.0)	25
Christianity	24 (25.5)	70 (74.5)	94	14 (36.8)	24 (63.2)	38
Statistical test	*χ^2 = 2.648, p = 0.104*			*χ^2 = 11.306, p = **0.001***		
Marital Status						
Married	4 (44.4)	5 (55.6)	9	3 (100.0)	0 (0.0)	3
Single	28 (27.2)	75 (72.8)	103	31 (51.7)	29 (48.3)	60
Statistical test	*χ^2 = 1.208, p =0.272*			*χ^2 = 2.687, p = 0.101*		
The last time you had sex						
< 1 week ago	9 (47.4)	10 (52.6)	19	4 (44.4)	5 (55.6	9
1 week ago to < 1 month ago	9 (25.7)	26 (74.3)	35	22 (62.9)	13 (37.1)	35
1 month to < 1year	10 (33.3)	20 (66.7)	35	4 (40.0)	6 (60.0)	10
> 1 year ago	4 (14.3)	24 (85.7)	28	4 (44.4)	5 (55.6)	9
Statistical test	*χ^2 = 6.563, p = 0.087*			*χ^2 = 2.556, p = 0.465*		

public; p value 0.010 and about 2 times better knowledge of LARC than single, AOR 2.366 in private).

Discussion

More than half of respondents in this study in the public university in Ekiti State have had sexual intercourse before while only about one third (30%) in the private university in the state had ever engaged in sexual intercourse. It shows that female students in public universities are more likely to be sexually exposed than their counterparts in the private university studied. This may be due to stricter rules and discipline guiding the stay of students in the private university and presence of more functional educative and learning groups where sexual education can be thought. It may also be due to willful under-reporting which is unlikely due to the detailed and accurate method of data collection that was adopted for the study. The high level of sexual exposure may lead to increase rate of unwanted unintended pregnancies and abortions. The finding in the public institution is high and similar to findings in studies done among female university students in Uganda where 69.5% of the respondents have ever had sex and also among tertiary institution students in Kaduna State, Nigeria with ever had sex rate of 59.9% and staff and students of a university community in Delta State Nigeria where 75.1% have ever had sex[5,7,22]. The proportion of students who have engaged in sexual intercourse in private institutions from this study is however lower than the studies stated above. The finding documented among tertiary institution undergraduate students in Kano State Nigeria is far lesser (10.67%) than the findings in this study at both public and private universities and this may be

Table 6: A binary logistic regression for the predictors of LARC knowledge in both the public and private universities

	Public		**Private**	
	AOR (95% CI)	**p-value**	**AOR (95% CI)**	**p-value**
Age of respondent (in years)				
<20	1.000		1.000	
≥ 20	1.383 (0.237 – 4.313)	0.495	1.954 (0.453 – 8.435)	0.369
Level				
100	1.000		1.000	
200	1.011 (0.237 – 4.312)	0.988	0.636 (0.084 – 4.839)	0.662
300	1.751 (0.543 – 5.643)	0.348	0.549 (0.077 – 3.922)	0.858
400	1.396 (0.380 – 5.131)	0.615	2.639 (0.854 – 8.153)	0.122
500	0.464 (0.095 – 2.263)	0.342	2.619 (0.570 – 12.036)	0.267
Religion				
Islam	4.077 (1.812 – 9.173)	0.001	6.396 (1.411 – 28.996)	0.016
Christianity	1.000		1.000	
Statistical test				
Marital Status				
Married	2.921 (1.093 – 9.390)	0.048	2.366 (1.364 – 21-364)	0.010
Single	1.000		1.000	
The last time you had sex				
< 1 week ago	2.916 (1.132 – 9.390)	0.041	2.364 (1.298 – 11.362)	0.043
1 week ago to < 1 month ago	2.151 (0.776 – 5.964)	0.141	1.422 (0.190 – 10.647)	0.732
1 month to < 1year	1.682 (0.562 – 5.004)	0.350	1.378 (0.081 – 4.105)	0.578
> 1 year ago	1.000		1.000	

due to religious and cultural adherence in the area[21]. With the observed reduced rate of sexual intercourse among the private university female students as compared to their public university counterpart which may be attributed to better discipline guiding the former in the school hostels, it is advised that more hostel be built to accommodate public university students within the university environment where stricter rule against free mingling and unlawful acts can be enforced.

About 41.3% of female students in public university and 37.1% in private university in this study were aware of LARC. This finding shows that there was no significant difference in the awareness rate across the two types of universities. This may be due to limited available information on LARC and may lead to reduce knowledge and uptake of the contraceptive. These findings are however, lower than findings in studies done in North London to assess the determinants of LARC among adolescent and young children and in Ethiopia among female college students to determine the utilization of LARC where ever heard rates of 71% and 83.5% respectively were documented[3,20]. This shows that awareness of LARC in Ekiti State is still low especially among university students. Sources of information in this study are majorly through the healthcare workers, social media and internet, friends and mass media. This is similar to findings among young women who desire LARC and permanent contraception in Gondor city, Northwest Ethiopia[4].

This study found out that the knowledge of LARC is also low among university students in both public (23.6%) and private (33.3%) settings, though knowledge among private university female students is relatively higher than in the public. This may be due to the unpopularity of LARC among adolescents and young women, limited information on LARC and unavailability of this form of contraceptives in the university health centres and surrounding health facilities. The reduced knowledge will affect uptake negatively and benefit students might derieved from usage. Only few of them knows the definition of LARC (38.5% in public and 29% in private), suitability for undergraduates (24.5%) in public and 26.2% in private), effectiveness (37.5% in public and 37.2% in private), duration of effectiveness (9.9% in public and 14.3% in private), how they look and procedure

for insertion (32.7% in public and 36.2% in private) and side effects (17.1% in public and 12.5% in private). This finding is similar to finding among university students in Lesotho with knowledge rate of 32%[6]. But this finding is low compared to findings among young women in North London (65.3%), clinical university students in United Kingdom (50%), female college students in Ethiopia (52.7%)[3,4,25]. The limited awareness and knowledge of LARC found by this study can be increased with targeted campaigns and trainings in the universities and also provision of the contraceptives in the university's health centres.

Predictors for LARC knowledge among undergraduate university students as found in this study were religion (Islam) and being married. This finding may be because religion and marital status are socio-cultural factors that may affect believes and subsequently knowledge of contraceptives. This finding may suggest that taken awareness campaign to religious bodies may aid uptake of LARC. However, this finding is dissimilar to findings reported in a study on LARC among adolescent women receiving school-based primary care services where race and history of vaginal intercourse were positive predictors to LARC uptake and older age was a negative predictor[26].

Conclusion

This study found a high level of sexual exposure among the university students, however, students in the public university were more sexually exposed than their private university counterparts and this difference is statistically significant ($p < 0.001$). It was also found that awareness of Long Acting Reversible Contraception (LARC) in both institutions is poor but worse in private than public. This difference in awareness is not statistically significant. This study also found out that the knowledge of Long Acting Reversible Contraception is low among university students in both public and private settings, though knowledge among private university female students is relatively higher than in the public and this difference is statistically significant at $p = 0.027$. Predictors of LARC knowledge among undergraduate university students as found in this study were religion (Islam) and being married. Government and other relevant stakeholders need to institute continuous awareness campaign programmes aimed at increasing knowledge of LARC and reducing the prevalence / effect of unwanted pregnancy as a result of unprotected sexual exposure.

Policy recommendation

With the high level of sexual exposure and the low awareness and lack of access to LARC, there is need for a deliberate government policy targeted at making the contraceptives available in university health centres or other nearby health facilities. This could be achieved through the routine clinic in these universities or a special adolescent/youth friendly clinic to scale up access and uptake.

Acknowledgement

The authors acknowledge Afe Babalola University, Ado-Ekiti (ABUAD), for the publication grant.

Competing interest

The authors declare no competing or conflict of interest

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