Ife Social Sciences Review
Faculty of Social Sciences,
Obafemi Awolowo University Ile Ife, Nigeria
Journal homepage: www.issr.oauife.edu.ng/journal
ISSN:0331-3115 eISSN:2635-375X

Modern Contraceptive Knowledge and Its Determinants among Adolescents in Nigeria

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Abstract

The study examined the knowledge of modern contraceptives and its determinants among Nigerian female adolescents. Using the sampling procedure in the dataset, a total sample size of 6850 female respondents aged 15-19 was extracted from the most recent Nigeria Demographic and Health Survey 2018 (NDHS). Female adolescents were asked on their knowledge of various modern contraceptive methods. According to the findings, the condom is the most widely known modern contraceptive method in all regions except in North West where we discovered a higher knowledge of implants modern methods compared to other modern methods known in other regions of the country. The study also found the socio-demographic factors such as age of respondents, level of education, residence, and household wealth status are all associated with modern contraceptive knowledge. The study concluded that condom is the most common modern contraceptive methods known among the female adolescents in Nigeria and it is determined by age, level of education, residence, and household wealth.

Keywords: Region, Modern contraceptives, Adolescent, Determinants, Nigeria

Introduction

The study looked at regional differences in knowledge of modern contraceptives and their determinants among Nigerian female adolescents. Using the sampling procedure in the dataset, a total sample size of 6850 female respondents aged 15-19 was extracted from the most recent Nigeria Demographic and Health Survey (NDHS). Female adolescents were asked on their knowledge of various modern contraceptive methods. According to the findings, the condom is the most widely used modern contraceptive method. Except for North West, where we discovered a higher knowledge of implants modern methods compared to other modern methods known in other regions of the country, knowledge of condoms cut across all states. The study also discovered that demographic and socioeconomic factors such as age, level of education, residence, and household wealth status are associated to contraceptive knowledge. The study concluded that there are regional differences in contraceptive knowledge

and that improving women's socioeconomic status would increase awareness and, ultimately, contraceptive use.

Family planning is the term used to describe the service provided to individuals and couples to assist them in limiting or spacing their birth intervals. It is also described as a fundamental process of using traditional or modern contraceptive methods to help people and couples have the number, spacing, and timing of children as they wish (Amarin & Abduljabbar, 2020). Access to safe, voluntary family planning is a right. Family planning is central to gender equality and women's empowerment, and it is a key factor in reducing poverty and maternal deaths (Bailey et al., 2014). Lack of family planning uptake has diverse implication, including high-risk pregnancies, reproductive tract infections, and sexually transmitted diseases among others (Thongmixay et al., 2020). Family planning methods can either be traditional or modern methods. Modern methods include intrauterine contraceptive device (IUD), implants, injectibles, pills, female sterilization, male sterilization, male condom, female condoms, emergency contraception, and lactation amenorrhea (LAM), while traditional methods include rhythm (calendar), withdrawal, and folklore methods (Mulatu et al., 2020; National Population Commission (NPC) [Nigeria] & ICF, 2019).

Family planning uptake among adolescents is now becoming important to researchers because of their sexual and reproductive health needs. At this stage, they are getting sexually attracted to the opposite sex and many of them are bound to be sexually active. Adolescence is a peculiar phase in life and a time of social and biological transition between childhood and adulthood that entails numerous milestones and opportunities, roles, and responsibilities (Olika et al., 2021). This age group (10-19) constitutes 16 percent of the world's population and its's one of the fastest-growing cohorts, hence, their contribution is vital in achieving several development goal (Olika et al., 2021; WHO et al., 2020). World Health Organization in 2020 globally reported that about 15 million adolescent girls of age 15-19 years get pregnant. Studies also revealed that about one-third of these pregnancies results in unsafe abortion which could lead to stigmatization and deaths among adolescents (Akinyemi et al., 2022). An Africa reports suggest that 38 million adolescents need family planning to avert unintended pregnancy but more than half are not using (Darroch et al., 2016). Gaps exist in access to modern contraceptives among girls in Low-and-Middle-income countries (LMICs). For instance, in Nigeria, 22% of adolescents between the age of 15-19 use Modern contraceptives at last intercourse leaving the rest who are sexually active exposed to sexually transmitted infections and unwanted pregnancies (Shee et al., 2019).

Knowledge of modern contraceptives is germane in accessing family planning services among adolescents. Several studies have revealed knowledge of family planning across countries. A study conducted in Rwanda on knowledge and access to modern contraceptives among secondary school adolescents found a high but inadequate knowledge of contraceptives among the adolescents, the study also affirmed that hearing about contraceptives does not indicate knowledge of any methods (Ngerageze et al., 2022). In Ghana, knowledge of contraceptives is low as reported in a recent study, investigating knowledge of modern methods, the study showed that just 10% of respondents have used only condoms (Sam, 2020). Another systematic review on knowledge of contraceptives among adolescents also revealed an adequate knowledge of contraceptives, the study also revealed a higher knowledge among boys than girls (Atuhaire et al., 2021). In Nigeria, studies conducted on adolescents' contraceptive knowledge also revealed a higher knowledge in Enugu and Ogun (Ogu & Igwe, 2022; Crawford et al., 2021). A good knowledge of contraceptives was also recorded in Bayelsa (Imawaigha & Patricia, 2021). Though studies conducted in Nigeria have revealed adequate knowledge of modern contraceptives among adolescents (Imawaigha &

Patricia, 2021; Ogu & Igwe, 2022). There is a gap on knowledge of specific methods and in which region of the country is the knowledge found the more. Hence, to improve use and access, there is a need-to-know which region needs more sensitization on family planning and on which method to improve knowledge among the adolescents. The study, therefore, seeks to examine the knowledge of specific modern contraceptives methods across regions and the determinants in Nigeria. This will go a long way in improving knowledge of specific method and use of family planning among the adolescents in Nigeria.

Methods

The study was based on the analysis of secondary data extracted from the 2018 Nigeria Demographic and Health Survey (NDHS). This survey was the fifth to be implemented by the National Population Commission in Nigeria, but the seventh to be conducted in the country. The extraction for the NDHS 2018 dataset generated a large sample size sufficient for drawing valid inferences on regional disparity in the knowledge of specific modern contraceptive methods using the individual recode. A cross-sectional study design has been adopted in studies that analyzed Demographic and Health Survey (DHS) data. Comprehensive details of the DHS design and methodology are widely available (National Population Commission (NPC) [Nigeria] & ICF, 2019). The study analyzed a weighted sample of 6,850 adolescents aged 15-19 years

Measurement of Variables

Outcome Variable

The outcome variable in this study was knowledge of specific modern contraceptives methods which was categorized in the NDHS individual recode. The question asked was "which of the specific modern contraceptive method do you know". According to NDHS, the response was categorized into lists of all the modern contraceptives and traditional methods of family planning. For this study, modern contraceptive method was considered. The study selected only modern contraceptives and categorized them into four (Condoms, implants, lactation amenorrhea, and others). The "others" in the fourth category includes pills, IUDs, injections, and sterilizations.

Independent Variables

The explanatory variables used in the current study include respondent's current age, level of education (no education, primary, secondary, tertiary), religion (Christianity, Islamic, and traditional/others), place of residence (urban, rural), region, wealth quintile (poorest, poorer, middle, richer, richest), marital status (Never in a union, in a union, widow, and separated), and current employment status (Not employed, and employed).

Data Analysis

Stata 14 was used for the statistical data analysis. The descriptive statistics were used to present respondents' socio-demographic characteristics and knowledge of methods of modern contraceptives. Furthermore, analysis was done to examine the knowledge of methods of modern contraceptives among adolescents in Nigeria. The results were presented using tables and charts where appropriate. Also, at the bivariate level, chi-square test was done to check the association of sociodemographic characteristics and knowledge of methods of modern contraceptives.

Results

Percentage Distribution of Socio-demographic characteristics of Respondents

The table 1 below shows the respondents' socio-demographic characteristics. The mean age of the study population was 17 years, and respondents age 18 years with a higher percentage at 25%. The highest level of education attained among the adolescents was secondary school education (65%), 25% of the respondents do not have any formal education while only 3.25% are with a tertiary degree. Also, the distribution of respondents by residence revealed that the

majority of the adolescents come from rural areas (51.46%), while the rest are from urban areas.

Across the regions of study, the Northwest had the highest representation of respondents (30%), while the least percentage of about 11% are from south-south and southeast respectively. Considering the wealth index of the respondents, 13% of the respondents are poor while the majority of the respondents live a comfortable life. The Muslims had the highest representation in the study 54%, while 46% are Christians. In terms of marital status, a higher percentage are not married while 25% are married. Furthermore, 37% of the respondents were employed, while the remaining 63% were unemployed.

Table 1 Percentage Distribution of Socio-demographic characteristics

Age in single years	**Frequency (6,850)**	**Percent (%)**
15	1,389	20.28
16	1,230	17.95
17	1,363	19.91
18	1,695	24.75
19	1,171	17.10
Highest educational level		
No education	1,492	21.78
Primary	639	9.33
Secondary	4,499	65.68
Higher	220	3.21
Place of Residence		
Urban	3,326	48.54
Rural	3,524	51.46
Region		
North Central	924	13.50
North East	1,148	16.77
North West	2,057	30.03
South East	810	11.83
South South	800	11.67
South West	1,110	16.20
Wealth Index		
Poorest	947	13.83
Poorer	1,320	19.28
Middle	1,438	20.99
Richer	1,546	22.57
Richest	1,598	23.33
Religion		
Christianity	3,142	45.86
Islamic	3,690	53.87
Traditional/other	18	0.27
Current employment status		
Not employed	4,314	62.95
Employed	2,536	37.05

Source: Analysis NDHS 2018

Frequency and percentage distribution of respondent's recent sexual activity

The table below shows that about 62% never had sex, while 38% of the respondents reported to have had sex. It means that most of the respondents have never engaged in any form of sexual activity.

Table 2: Frequency and percentage distribution of respondent's recent sexual activity

Recent Sexual Activity	Frequency (6,850)	Percent
Never had sex	4,233	61.80
Ever had sex	2,617	38.20

Knowledge of specific modern contraceptive methods among Adolescents

The chart in the figure 1 below shows the general knowledge of specific modern contraceptive methods among the adolescents in Nigeria. Generally, a larger percentage of the respondents (54%) know about condoms, followed by 21% who knows implant methods, 15% are said to be in the known of lactation amenorrhea, while approximately 11% know other methods of modern contraceptives such as pills, IUDs, injections, female sterilization, and male sterilization.

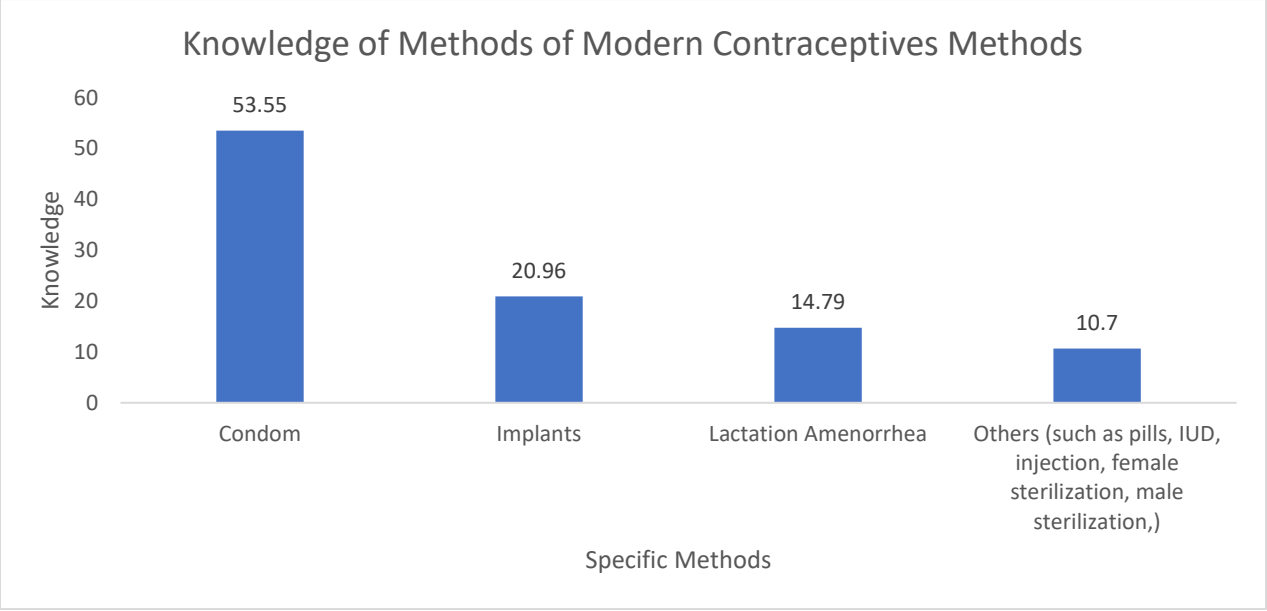


Figure 1: Knowledge of modern contraceptive methods among Adolescents

Source: Analysis NDHS 2018

Knowledge of specific modern contraceptive methods across regions

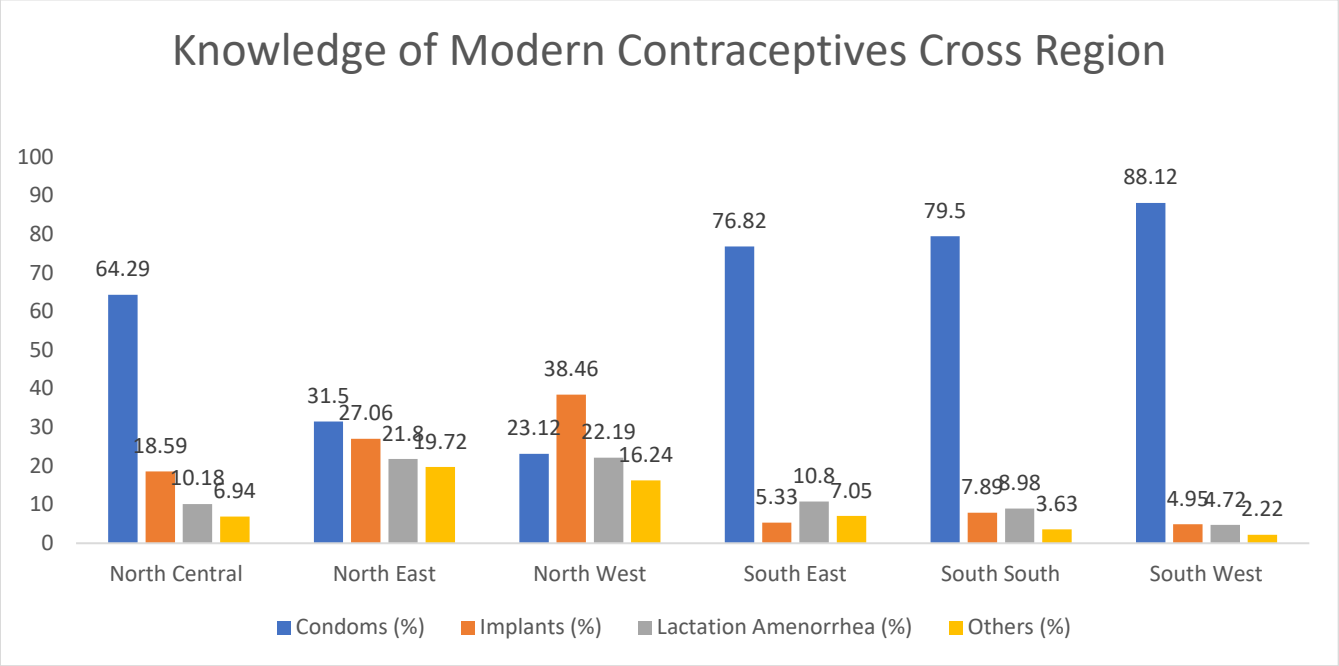
The table below depicts respondents' knowledge of specific contraceptive methods in various regions of the country. In the North Central of the study area, 64% are knowledgeable about condoms while the least method known are other methods such as pills and IUDs among others. Likewise, in the Northeastern part of the country, the most known method is also condoms while the list method known is other methods. Among the adolescents from the Northwest, as against the usual trend, the most known method in this region is implant as the knowledge of modern methods spread proportionately across the state. Notably, in the southeast, south-south, and southwest, almost all the respondents know of condoms (76%, 79%,88%) respectively while little or no knowledge of other methods was found across the mentioned states. In conclusion across the states of Nigeria, the adolescents' most common method known is condoms (i.e., male and female condoms).

Table 3: Respondents knowledge of modern contraceptive methods across regions

Region	Modern Contraceptives Known			
	Condoms (%)	Implants (%)	Lactation amenorrhea (%)	Others (%)
North Central	594 (64.29)	172 (18.59)	94 (10.18)	64 (6.94)
North East	361 (31.5)	312 (27.13)	251 (21.86)	224 (19.52)
North West	476 (23.12)	791 (38.46)	456 (22.19)	334 (16.24)
South East	622 (76.82)	43 (5.33)	87 (10.8)	57 (7.05)
South South	636 (79.5)	63 (7.89)	72 (8. 98)	29 (3.63)
South West	978 (88.12)	55 (4.95)	52 (4.72)	25 (2.22)

Source: NDHS 2018

Figure 2: Knowledge of Modern Contraceptive methods by region



Sources: NDHS 2018

Bivariate Analysis

Table 4 below shows the association between socio-demographic characteristics and adolescents' knowledge of modern contraceptive methods in Nigeria. The table investigates the association between the socio-demographic variables and knowledge of modern contraceptive methods. As indicated in the table, only age of respondents as a socio-demographic characteristics of respondents predicts the knowledge of lactation amenorrhea and other such as pills, IUDs, and sterilizations with p-value; 0.011 and 0.000 respectively. However, for the knowledge of other method, the table revealed that socio-demographic characteristics of the adolescents, such as marital status, religion, wealth index, educational status, place of residence and region determines the knowledge of condom, implants, lactation amenorrhea and others (pills, IUDs and sterilization).

Table 4: Cross tabulation showing the association between socio-demographic variables and modern contraceptive methods in Nigeria

	Modern contraceptive methods											
Sociodemographic characteristics	**Condoms (6,850)**		**Chi value (P value)**	**Implants (6,850)**		**Chi value (P value)**	**Lactation Amenorrhea (6,850)**		**P value**	**Others (6,850) (such as pills, IUDS and sterilization)**		**P value**
	Yes	**No**		**Yes**	**No**		**Yes**	**No**		**Yes**	**No**	
Age												
15	763 (54.89)	627 (45.11)		256 (18.46)	1133 (81.54)		181 (13.02)	1208 (86.98)		189 (13.63)	1200 (86.37)	
16	691 (56.23)	538 (43.77)		239 (19.5)	990 (80.5)		146 (11.91)	1083 (88.09)		152 (12.36)	1078 (87.64)	
17	705 (51.67)	659 (48.33)		310 (22.69)	1054 (77.31)		216 (15.87)	1147 (84.13)		133 (9.76)	1231 (90.24)	
18	854 (50.37)	842 (49.63)		378 (22.31)	1317 (77.69)		282 (16.64)	1413 (83.36)		181 (10.68)	1514 (89.32)	
19	655 (55.92)	516 (44.08)	2.352 (0.059)	252 (21.47)	919 (78.53)	1.892 (0.112)	187 (15.99)	984 (84.01)	**3.286 (0.011)**	77 (6.62)	1094 (93.38)	**6.234 (0.000)**
Religion												
Christian	2376 (75.64)	765 (24.36)		349 (11.12)	2792 (88.88)		263 (8.38)	2878 (91.62)		152 (4.86)	2989 (95.14)	
Islam	1280 (34.68)	2410 (65.32)		1083 (29.35)	2607 (70.65)		749 (20.3)	2941 (79.7)		578 (15.67)	3112 (84.33)	
Traditional	12 (65.12)	6 (34.88)	**234.080 (0.000)**	3 (20.96)	15 (82.11)	**98.196 (0.000)**	1 (3.79)	17 (96.21)	**88.076 (0.000)**	2 (13.21)	16 (86.79)	**66.770 (0.000)**
Marital status												
Never in union	3231 (62.11)	1971 (37.89)		942 (18.12)	4259 (81.88)		545 (10.47)	4657 (89.53)		483 (9.30)	4718 (90.7)	
In a union	425 (26.46)	1181 (73.54)		483 (30.08)	1123 (69.92)		457 (28.46)	1149 (71.54)		241 (14.99)	1365 (85.01)	
Widowed	4 (72.75)	1 (27.25)		1 (27.25)	4 (72.25)		457 (28.46)	1149 (71.54)		0 (0.00)	5 (100.00)	
Separated	8 (23.00)	29 (77.00)	**15.942 (0.000)**	9 (23.22)	28.89 (76.78)	**22.627 (0.000)**	12 (30.66)	26 (69.34)	**66.645 (0.000)**	9 (23.12)	28.93 (76.88)	**9.342 (0.000)**
Wealth index												
Poorest	234 (24.66)	714 (75.34)		261 (27.58)	686 (72.42)		243 (25.67)	704 (74.33)		209 (22.09)	740 (77.91)	

Poorer	493 (37.3)	828 (62.7)		374 (28.33)	947 (71.67)		270 (20.41)	1051 (79.59)		184 (13.96)	1136 (86.04)	
Middle	776 (53.95)	662 (46.05)		309 (21.46)	1129 (78.54)		214 (14.88)	1224 (85.12)		140 (9.14)	1298 (90.29)	
Richer	981 (63.46)	565 (36.54)		279 (18.06)	1267 (81.94)		165 (10.68)	1381 (89.32)		120 (7.80)	1426 (92.0)	
Richest	1185 (74.14)	413 (25.86)	**91.369 (0.000)**	212 (13.3)	1386 (86.7)	**15.288 (0.000)**	121 (7.60)	1477 (92.4)	**28.910 (0.000)**	79 (4.96)	1519 (95.04)	**31.061 (0.000)**
Educational level												
No education	286 (19.16)	1206 (80.84)		478 (32.04)	1014 (67.96)		382 (25.63)	1110 (74.37)		346 (23.17)	1146 (76.83)	
Primary	288 (45.09)	351 (54.91)		162 (25.34)	477 (74.66)		112 (17.59)	527 (82.41)		77 (11.99)	562 (88.01)	
Secondary	2947 (65.5)	1552 (34.5)		747 (16.59)	3752 (83.41)		500 (11.11)	3999 (88.89)		306 (6.80)	4193 (93.2)	
Higher	147 (66.94)	73 (33.06)	**163.858 (0.000)**	49 (22.39)	171 (77.61)	**25.251 (0.000)**	19 (8.49)	201 (91.51)	**41.499 (0.000)**	5 (2.18)	215 (97.82)	**76.709 (0.000)**
Place of residence												
Urban	2177 (65.44)	1150 (34.56)		549 (16.52)	2777 (83.48)		367 (11.03)	2959 (88.97)		233 (7.01)	3093 (92.99)	
Rural	1491 (42.32)	2032 (57.68)	**117.604 (0.000)**	886 (25.15)	2637	**30.260 (0.000)**	646 (18.34)	2877 (81.66)	**32.762 (0.000)**	499 (14.19)	3024 (85.81)	**39.912 (0.000)**
Region												
North Central	594 (64.29)	330 (35.71)		172 (18.59)	752 (81.41)		94 (10.18)	830 (89.82)		64 (6.94)	860 (93.06)	
North East	362 (31.5)	787 (68.5)		312 (27.13)	837 (72.87)		251 (21.86)	898 (78.14)		224 (19.52)	925 (80.48)	
North West	476 (23.12)	1581 (76.88)		791 (38.46)	1266 (61.54)		456 (22.19)	1600 (77.81)		334 (16.24)	1723 (83.76)	
South East	622 (76.82)	188 (23.18)		43 (5.33)	767 (94.67)		87 (10.8)	723 (89.2)		57 (7.05)	753 (92.95)	
South South	636 (79.5)	164 (20.5)		63 (7.89)	737 (92.11)		72 (8.98)	727 (91.02)		29 (3.63)	771 (96.78)	
South West	978 (88.12)	132 (11.88)	**210.068 (0.000)**	55 (4.94)	1055 (95.06)	**95.052 (0.000)**	52 (4.72)	1058 (95.28)	**32.649 (0.000)**	25 (2.22)	1085 (97.78)	**41.769 (0.000)**

Source: NDHS 2018

Discussion

The study aims to examine contraceptive knowledge across Nigerian regions and each modern method of family planning known across the country. The study included adolescent girls between the ages of 15 and 19. According to the study, one-quarter of respondents have no formal education, while more than three-fifths have completed secondary school. The respondents were drawn from all the six geopolitical zones of Nigeria, with the northwest having the highest proportion and the south-south having the lowest number of respondents. The majority of respondents are single and belong to either Christian or Islamic faiths. Three in every five of the respondents reported that they are not currently engaged in any economic activities.

The finding of the study revealed that condom is the most common modern contraceptive methods known among adolescents in Nigeria. As found in the study, knowledge of condoms was profound among the respondents as a higher proportion claimed to have higher knowledge of condom (both male and female condom combined) compared to other contraceptive methods. The condom in this study was male and female condom but was combined to generate new variable condom. This study is in line with a systematic review conducted on knowledge and use of condoms in Nigeria where knowledge of female condoms was found to be higher among their respondents (Shallie & Haffejee, 2021). Our findings are consistent with previous research. Szucs et al., (2020) found that condom is the most common contraceptive known among high school students in the United States. Also, the experiences in developed countries are similar to those in developing countries. In a study conducted in Malawi among adolescent girls by (Nash et al., 2019); they claimed that male and female condoms are the most commonly known forms of contraception. In addition, the possible reasons why condom is the most common form of modern contraception methods known are not far-fetched from existing literature, which suggest reasons such as high efficiency in preventing pregnancy and sexually transmitted diseases, relatively low cost, and low health risk (Atchison et al., 2018; Lammers et al., 2013; Shallie & Haffejee, 2021). Our research also found that implants are adolescents' second most popular form of contraception. For instance, an efficient long-acting hormonal contraceptive is Norplant-2, it is highly acceptable, safe, and has sterilization-level effectiveness, according to (Akamike et al., 2019).

The study also revealed that pills, IUDs, injectables, and male and female sterilization were the least methods known to adolescents in Nigeria. This is expected because an adolescent who may not be sexually active will not want to be bothered in updating their knowledge on methods of contraception. For those who are sexually active, it is expected that long-acting methods will not be known to them because they still have the intention of having children and thus want to seek a more short-acting method to protect against sexually transmitted infection or unwanted pregnancy. Our study is therefore not in isolation as it was corroborated in other studies, though these studies revealed a higher knowledge of contraceptive methods but specifically, the knowledge of long term acting methods was found to be low compared to short-acting methods among the adolescents in Nigeria (Agbo et al., 2020; Ahmed et al., 2017). Also, the reasons behind low knowledge of other methods could be due discrimination against unmarried adolescents in accessing health information or facilities, cost, and fear of side effects. These possible explanations have also been outlined in studies by (Esan & Bayajidda, 2021; Olajide et al., 2014). Both studies raised the alarm about the poor perceptions of parents and health workers regarding the reproductive health needs of adolescent girls.

Aside from capturing adolescents' overall knowledge of modern contraceptives, our study also revealed that knowledge varies with specific modern contraceptives across regions in Nigeria. The study examined knowledge of specific contraceptives in each of the six geopolitical

regions. Our findings revealed regional differences in knowledge of certain contraceptives in Nigeria. The southern regions of Nigeria have a higher level of condom knowledge than the northern regions. For example, all regions in the South have at least four-fifths of their adolescents with knowledge of condoms as contraceptives, compared to less than one-third in the northern part of the country, except for the north-central geopolitical zone. Furthermore, we believe that early marriage in the northern part of the country (Ogbe, 2020), as well as pronatalist traditions and religious affiliations (Fayehun et al., 2020), may be responsible for the disparities between the north and south figures.

In contrast to our observations on condom knowledge as a contraceptive, the knowledge of implants is much higher in the northern part of the country than in the southern parts. In northern Nigeria, the proportion of people who know about implants ranges from one-fifth to two-fifths. While implant knowledge is relatively low in the southern part of the country, it is far from one in ten in any of the three southern regions. The higher knowledge of implants as contraceptives in the North may be because a higher proportion of female adolescents in the North are married or in a union and thus may be able to seek a more permanent method than condoms. Furthermore, because a significant proportion of them are married, they are less likely to face stigma when seeking reproductive health information and services. Knowledge of implants is said to be one of the contraceptives known as this tends to change as they change their marital status. The study is in line with another study conducted on specific method of contraceptives of adolescents (Sanchez et al., 2021). Other modern contraceptives, such as IUDs, pills, injections, and sterilization, follow the same pattern and may have the same reasons as discussed above. The same pattern observed for implants exists for knowledge of lactation amenorrhea, with a higher proportion of respondents reporting from the northern parts of the country compared to the southern parts of Nigeria.

Aside from the possible explanations for the disparities in the figures for implants in the northern and southern parts of the country, adolescents in the North are more likely to have given birth and have more percent count row Pearson parties than their southern counterparts. Because a nursing mother can practice lactation amenorrhea, adolescents in the northern part of the country are more likely to have previous antenatal and birth experiences, giving them access to lactation amenorrhea information. This is corroborated by a study conducted in Nigeria that revealed the rate of child marriage in the country (Adedini, Mobolaji, Adetutu, Abe, & Oyinlola, 2022).

Regarding the determinants of knowledge of modern contraceptives, the study examined the associations between age of respondents, marital status, religion. Region, place of residence, educational status and wealth index and knowledge of modern contraceptive methods among adolescents in Nigeria. Knowledge of condom was examined among the adolescent in Nigeria, the study revealed that it is mainly determined by marital status, region, place of residence, region, wealth index and educational level. To know condom as a method among the adolescent marital status played a significant role this is in consonance with a study conducted in tertiary university in Nigeria (Akpan et al., 2014). Likewise, respondents educational status, wealth index, religion, place of residence, and region played a significant role, this is supported in studies in Nigeria also played a significant role (Chingle et al., 2017; Ogu & Igwe, 2022).

Also, knowledge of implants which is a form of long-acting reversal contraceptive method was examined among adolescent in Nigeria, the study indicated that it is solely determined by age of respondents, religion, marital status, place of residence, wealth index, educational level and region. To understand implants as a method among the adolescent, age of respondence, place

of residence, religion, marital status, educational level and wealth index played a significant role that is in accordance with a study from (Azuh & Oladosun, 2023; Fenta & Gebremichael, 2021; Nsanya et al., 2019).

Furthermore, lactation amenorrhea was examined as a method of modern contraceptives among adolescents in Nigeria where ages of respondents, place of residence, religion, marital status, educational level and wealth index was revealed in the table to play a significant role. Amidst all this factors, only educational level was identified by previous study as having a significant impact (Abraha et al., 2018).

More so, for pills, IUDs and sterilizations as a form of modern contraceptive methods, the socio-demographic variables considered were also found to play a significant role. To be aware of pills, IUDs and sterilizations categorized as other forms of modern contraceptives is significantly associated with place of residence, marital status and educational level which is supported by a study in Nigeria, Uganda and Rwanda (Abeshi et al., 2017; Nanvubya et al., 2020; Ngerageze et al., 2022). Respondents religion, wealth index and age was also found to be significant in the study which was supported by a study from Bangladesh (Alam et al., 2020).

Conclusion

The study comes to the conclusion that there are regional differences in Nigeria's knowledge of specific modern contraceptive methods. And that knowledge of contraceptives is influenced by individual, household, and community factors. The study suggested that in order to increase women's knowledge of contraceptives, policies and programs should focus on improving their social and economic status.

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