

ORIGINAL RESEARCH ARTICLE

Awareness and Use of Modern Contraceptives Among Physically Challenged In-School Adolescents In Osun State, Nigeria

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Abstract

This study assessed awareness and use of modern contraceptives among physically challenged in-school adolescents in Osun State, Nigeria. A cross-sectional study was carried out among 215 adolescents in the special schools in the state. A pretested semi-structured questionnaire was administered by trained interviewers. Data analysis was done using SPSS 17 and statistical level of significance was set at $p < 0.05$. The mean age of the respondents was 15.5 years and more than half of them (56%) were males. Only about two fifths of them (38%) had ever heard about modern contraceptives. More males, older adolescents and visually impaired respondents had significantly heard about modern contraceptives compared with females, younger ones and those with other challenges at p -values of 0.026, 0.001 and 0.003 respectively. Only 34% of sexually experienced respondents had used a modern contraceptive method. The male condom was the most commonly used method. *Afr J Reprod Health* 2014; 18[2]: 87-96).

Keywords: Blind, Deaf, family planning, Adolescents, School

Résumé

Cette étude a évalué la sensibilisation et l'utilisation des contraceptifs modernes chez handicapés adolescents qui fréquentent l'école dans l'État d'Osun, au Nigeria. Une étude transversale a été menée auprès de 215 adolescents dans les écoles spéciales de l'État. Un questionnaire semi-structuré qui a subi une épreuve préalable a été administré par des enquêteurs formés. L'analyse des données a été effectuée à l'aide de SPSS 17 et le niveau de signification statistique a été fixé à $p < 0,05$. L'âge moyen des répondants était de 15,5 ans et plus de la moitié d'eux (56 %) étaient des hommes. Seuls environ deux cinquièmes d'entre eux (38%) avaient déjà entendu parler de la contraception moderne. Plus de garçons, les adolescents plus âgés et les répondants ayant une déficience visuelle ont considérablement entendu parler de contraceptifs modernes par rapport aux femmes, aux plus jeunes et à ceux qui ont d'autres défis à la valeur de p de 0,026, 0,001 et 0,003 respectivement. Seulement 34% des répondants qui ont eu une expérience sexuelle avait utilisé une méthode contraceptive moderne. Le préservatif masculin est la méthode la plus couramment utilisée. *Afr J Reprod Health* 2014; 18[2]: 87-96).

Mots-clés: aveugle, sourd, planification familiale, adolescents, école

Introduction

Adolescence can be particularly stressful for those with disabilities. They undergo physical and psychological maturation and are expected to acquire some degree of independence and assume a social identity like their counterparts without such challenges. Many of them are victims of social stigma, discrimination, exploitation and abuse. Yet, their disability does not translate to

impotence or lack of emotional/sexual feelings. A survey of disabled young people between 12 and 18 years old in United States found that the disabled adolescents did not differ from their healthy peers in terms of the proportion of those who are sexually exposed, age of first sexual intercourse, ever causing or carrying a pregnancy, or contraceptive use patterns¹. In another work done on the sexual behavior of physically challenged adolescents, it was also found that

physically disabled adolescents are as sexually experienced as the nondisabled². Physically challenged adolescents experience puberty and sexual feelings – they feel and yearn for sex just like any other adolescents³. Studies have shown that they experience sex and some negative reproductive health outcomes like their nondisabled counterparts. Thus sexual development, knowledge and attitudes about premarital sex, pregnancy, contraceptives and their particular needs for sexuality education and counseling should not be overlooked. Physically disabled girls have been shown to have higher odds of experiencing sex against their will; making them more vulnerable than their nondisabled counterparts². Many disabled women and girls are sexually or physically abused by family members, caretakers or friends⁴. In many developing countries, health practitioners are generally unaware of the reproductive health needs of the physically challenged⁴. A study suggests that though many physically disabled young people are sexually active, their levels of birth control knowledge and contraceptive use tend to be lower⁵. Physically challenged adolescents are often seen as asexual beings and sexless⁶ and their needs for contraception are often neglected. They often have less exposure to sexuality education and poorer knowledge regarding contraceptives. Adolescent exposure to sexuality education is generally low in Nigeria; adolescents with special needs such as the physically challenged face a more serious challenge when it comes to sexuality issues. Such adolescents do not have the privilege of family life and sexuality education⁷ and some care-givers see their disability as constituting an insurmountable lifetime challenge which would only be compounded by introducing sexual issues^{7,8}.

For the few who know about contraception, their knowledge about contraception is often incomplete and/or incorrect, and is not necessarily translated into contraceptive use among those who are sexually active.

Worldwide, the reproductive health of persons with physical disabilities is usually given low priority or dismissed. People with disabilities are often hidden from view or may have difficulty reaching clinics and family planning providers

may not be aware of their reproductive health needs⁴. Although family planning services have grown throughout much of Sub-Saharan Africa countries, organized efforts to incorporate voluntary fertility – regulation into specialized service programs for physically challenged adolescents have been sparse. With the growing shift from custodial and segregate institutionalization of the handicapped adolescents to special schools and community maintenance, there are greater chances for heterosexual relationships and a concomitant risk of unintended pregnancies and other consequences³. While the birth rate among able bodied people in most parts of Nigeria has decreased since the introduction of modern methods of contraception, that among the handicapped adolescents has increased⁷. This shows there is possibility of more of unprotected sexual activities among the physically challenged adolescents, hence the need for this study.

There is a dearth of information on the sexual activity and contraceptive use among physically challenged adolescents in Nigeria. The Nigerian policy on adolescent health has recommended that “there is a need to address the various dimensions of young people's health – physical, social, mental as well as spiritual⁹. This policy is however silent on needs that may be peculiar to the physically challenged adolescent whereas it has been demonstrated in literature that the disabled have peculiar reproductive health needs and/or challenges^{10,11}.

This study focused on contraceptive awareness and use among physically challenged adolescents in Osun state, Nigeria. It will contribute to the discussion on reproductive health challenges of the physically challenged and help in the design of reproductive health services for physically challenged adolescents.

Method

A cross-sectional study was carried out among adolescents in the special primary and secondary schools in Osun State, South West Nigeria. The study focused on respondents with one or more of the following: difficulty in using at least one limb because of a permanent physical condition; blinding in one or both eyes; hearing impairment

in one or both ears. They must also be physically fit and willing to participate in the study. A total sampling was done due to the small number of in-school physically challenged adolescents in Osun state. Nine out of the ten special schools in the state were visited and a total of 215 physically-challenged adolescents who met the inclusion criteria participated in the study.

A semi-structured questionnaire that assessed socio-demographic characteristics, sexual behavior, contraception awareness and use was administered by facilitated interviews. For individuals that had hearing impairment, data were collected with the assistance of trained sign language interpreters. The outcome measures of this study were awareness of any modern contraceptive method, sexual experience and usage of any modern contraceptives.

Socio-demographic and physical disability variables were expressed in frequencies and percentages while Chi – square test was used to determine association across different levels of the outcome measures. Early middle and late adolescence was regarded as age groups 10-13years, 14-16years and 17-19years respectively. So also, low educational status referred to those that did not complete secondary education while high educational status referred to those that completed secondary education. Logistic regression was used to determine factors that predicted the respondents' awareness of modern contraceptive methods.

A limitation in this study is dependence on the sign language interpreters to interpret for respondents who had hearing impairment creating possibility for information bias. However, attempt was made to overcome this limitation by selecting and training experienced/certificated sign language interpreter proven to be competent for the data collection.

Results

Of the 215 respondents in this study, about 21% are in the early adolescence while about 40% and 39% were in the middle and late adolescent age group respectively. The mean age for the respondents was 15.5years and more than half of them (56%) were males.

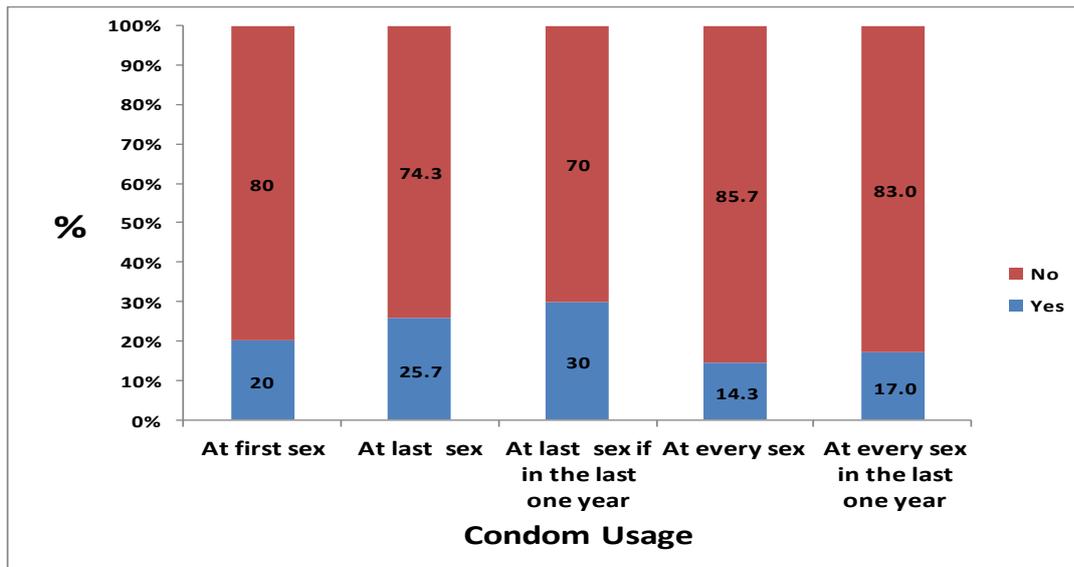
Table 1: Socio-demographic and physical disability characteristics of the respondents. ($n=215$)

Sociodemographics	Freq.	%
Age group (years)		
10 – 13	46	21.4
14 – 16	86	40
17 – 19	83	38.6
Sex		
Male	121	56.3
Female	94	43.7
Religion		
Christianity	141	65.6
Islam	73	34
Traditional	1	0.4
School		
Primary	115	53.5
Secondary	100	46.5
Father's Educational Status*		
Low	67	31.2
High	126	58.6
Unknown	22	10.2
Mother's Educational Status*		
Low	91	42.3
High	106	49.3
Unknown	18	8.4
Living Arrangement		
Living with both parents	127	59.1
Living with one parent	66	30.7
Living with none of the parents	22	10.2
Physical Disability		
Hearing Impaired	184	85.6
Limb Defect	22	10.2
Visual Impairment	9	4.2

About two thirds of them were Christians (65%) and about a third (34%) was Muslims. About half

of them (53%) were in primary schools. Nearly three fifths (59%) of the respondents lived with both parents while about a tenth lived with none of the parents. Most of the respondents (85%) had hearing impairment, about 10% had limb defects while less than five per cent had visual impairment; none of the respondents had multiple disabilities (Table 1).

Only about two fifths of the respondents (38%) had ever heard about modern contraceptive methods. The most common source of information was through the television and radio (79.2%) and the least common source was the internet (18.3%) [Figure1]. About 26% of the respondents were aware of the male condom while the least known form of modern contraceptives was spermicides [Figure 2].



N.B. Multiple responses were allowed.

Figure 1: Sources of information for those who were aware of modern contraceptive methods. (n = 82)

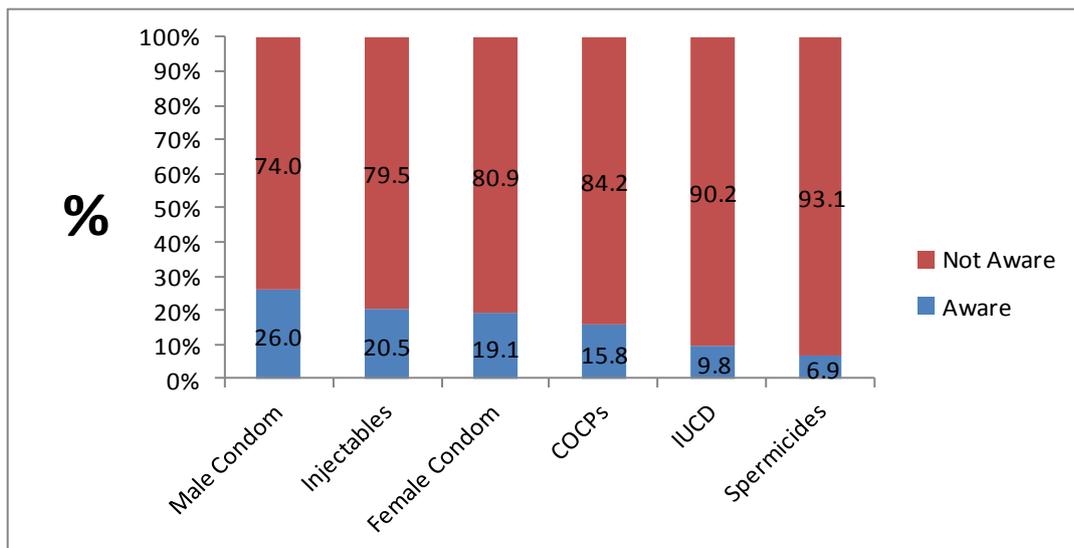


Figure 2: Awareness of respondents on some common modern family planning methods. (n=82)

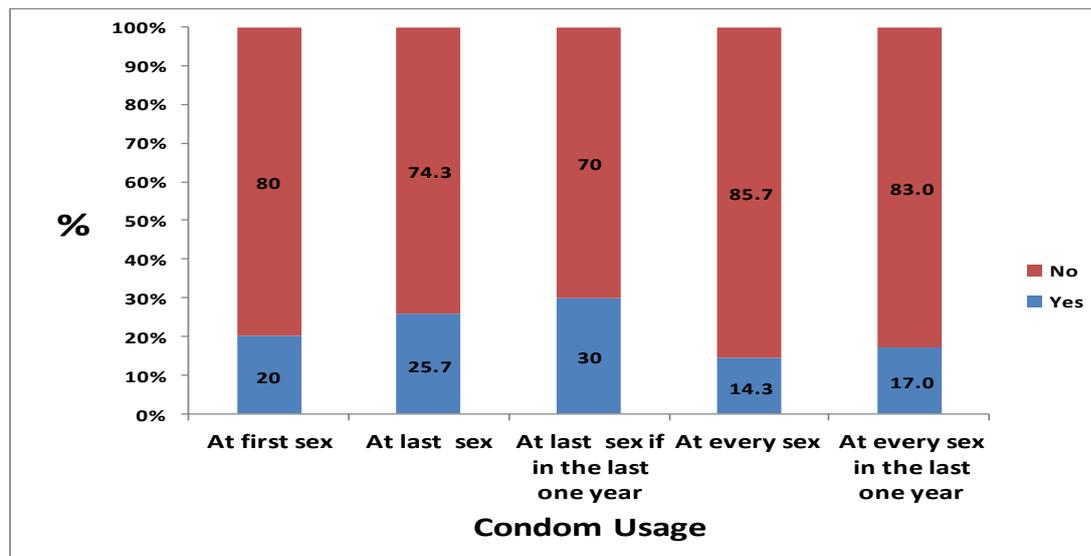


Figure 3: Condom use among sexually experienced respondents

Amongst those who were aware of any modern contraceptive method, nearly two thirds (65.9%) were males and among all males, 44.6% were aware of modern contraceptive while only 29.6% of females were aware. This was statistically significant ($\chi^2 = 4.939, p=0.026$). More than half (54.9%) of those aware of any modern contraceptive method were in late adolescence while just over a third (36.6%) were in the middle adolescence age group. So also, 45.8% of

respondents in the late adolescence period were aware of any modern contraceptive method while only 15.2% of those in the early adolescent period were aware. The observed differences among the various age groups with respect to awareness of any modern contraceptives method was statistically significant ($p<0.001$). Respondents in their late adolescence were more aware of modern contraceptives than those in other age groups (Table 2).

Table 2: Factors associated with awareness about contraceptives among respondents (n=215).

	Aware of contraceptives		n	χ^2 (p value)
	Yes (%) n=82	No (%) n=133		
Sex				
Male	54(44.6)	67 (55.4)	121	4.939 (0.026)
Female	28 (29.8)	66 (70.2)	94	
Age Group				
Early adolescence	7 (15.2)	39 (84.3)	46	19.724(<0.001)
Middle adolescence	30 (34.9)	56 (65.1)	86	
Late adolescence	45 (45.8)	38 (54.2)	83	
Disabilities				
Hearing impairment	62 (33.7)	122 (66.3)	184	0.003*
Limb disabilities	13 (59.1)	9 (40.9)	22	
Visual impairment/ Blindness	7 (77.8)	2 (22.2)	9	
Sexual Exposure				
Ever had sex	17(48.6)	18(51.4)	35	1.928 (0.165)
Never had sex	65(36.1)	115(63.9)	180	

*Fishers exact value

Out of those who had hearing impairment, a third (33.7%) were aware of modern contraceptive method, compared to about three fifths (59.1%) for those with limb disabilities and more than three quarters (77.8%) of those with visual impairment. There was a statistically significant difference ($p=0.003$) among the respondents with the various types of physical challenge and their awareness of modern contraceptives. A greater proportion of respondents with visual impairment were aware of modern contraceptives than those with other types of physical challenge (Table 2). When the respondents were asked whether condoms provide dual protection function, less than one sixth of the respondents (15.8%) answered in the affirmative while 7% said no and more than three quarters (77.2%) were not sure or did not know.

Only 35 respondents (16.3%) have ever had sexual intercourse and amongst these, more than three quarters (77%) were males. There was a statistically significant difference between males and females with respect to their having ever had sex ($\chi^2 = 7.396$ $p=0.007$). More than half (51.4%) of those who have ever had sexual intercourse were not aware of any modern contraceptive methods. There was however no statistically significant relationship between the awareness on any modern family planning method and respondents' sexual experience ($\chi^2 = 1.928$, $p=0.165$).

Out of the 35 sexually experienced respondents, twelve (34%) had used a modern contraceptive while about two thirds (66%) had not used any. The male condom is the most often used modern family planning method (28%) amongst these respondents. About 14.3% have used the female condom while about 8% and 5%

have used combined oral contraceptive pills (COCPs) and injectables respectively; none has ever used intrauterine contraceptive device (IUCD) (Table 3). Only one fifth (20%) of the sexually experienced respondents used a condom the first time they had sex while only about 14% of them and 17% of those who have had sex in the last one year used condom every time they had sex. Proportion of condom usage at last sex was a third (30%) for those who have had sex in the last one year and 25% for all the sexually experienced. Binary logistic regression using awareness of any modern contraceptive method as the independent variable revealed that respondents in middle adolescence were five times more likely to be aware of family planning compared to those in the early adolescence and this finding was statistically significant (OR=5.021, CI=1.838, 13.715, $p=0.002$). Respondents in the late adolescence were about twice more likely to be aware of a modern contraceptive method than those in early adolescence. This finding was significant at p -value of 0.019 and confidence interval of 1.146 to 4.591. (Table 4).

Table 3: Proportion of sexually experienced respondents who have ever used any of the modern family planning methods (n=35)

Contraceptive Method used by respondent or partner	Yes (%)	No (%)
Male Condom	10 (28.6)	25 (71.4)
Female Condom	5 (14.3)	30 (85.7)
Injectables	2 (5.7)	33 (94.3)
COCPs.	3 (8.6)	32 (91.4)
IUCD	0 (0.0)	35 (100.0)
Spermicides	1 (2.9)	34 (97.1)

*Multiple responses allowed

Table 4: Binary logistic regression of the determinants of awareness of modern contraceptives

Variable.	Odds ratio	p value	95% Confidence interval	
			Lower	Upper
Sex				
Female*	1			
Male	0.802	0.527	0.405	1.588
Age group				
Early Adolescence (10 – 13yrs)*	1			
Middle Adolescence (14 – 16yrs)	5.021	0.002**	1.838	13.715
Late Adolescence (17 – 19yrs)	2.294	0.019**	1.146	4.591
Type of Disability				
Blindness*	1			

Hearing impairment	4.507	0.091	0.788	25.789
Limb disabilities	1.607	0.634	0.228	11.319
Living arrangement				
Not living with any parent*	1			
Living with both parents	1.624	0.388	0.541	4.877
Living with one of the parents	0.631	0.436	0.199	2.007
Father's educational status				
Unknown status*	1			
Low educational status	0.299	0.213	0.045	1.999
High educational status	0.191	0.084	0.029	1.251
Mother's educational status				
Unknown status*	1			
Low educational status	2.876	0.304	0.383	21.569
High educational status	4.862	0.127	0.636	37.134
Ever had sex				
No*	1			
Yes	0.985	0.972	0.426	2.276

*Reference category

** Statistically significant.

Discussion

This study has highlighted modern contraceptive awareness and use amongst the physically challenged adolescents. Their level of awareness of modern contraceptive method is lower than the national average for all adolescents from the NDHS 2008 where more than half (51.3%) of those in the 15 – 19 years age group were aware of any family planning method (42.7% of females and 59.9% of males)¹². Though level of awareness and access of adolescents to contraception is lower compared to general populations¹³, it is even lower amongst the physically challenged as shown in this study. Reasons for this may be the misconception that the physically challenged adolescents are sexless beings; they are often 'neglected' when it comes to sexually-related issues like contraception and they have less access to reproductive health information and services^{4,7,14}. Considering the fact that all individuals, regardless of disability, are sexual beings¹⁵, the sexual development of physically challenged adolescents, as well as their knowledge and attitudes about premarital sex, pregnancy, contraceptives and particular needs for sexuality education and counseling should not be overlooked.

Pertaining to the source of information about contraception, the most commonly used was the electronic media (radio and TV). This is in keeping with an Indian study in which the electronic mass media was the commonest source

for those who were aware of contraception among a group of in-school adolescent girls¹⁶. The Nigerian Demographic and Health Survey (NDHS) conducted in the year 2008 showed that radio and television were the commonest sources of family planning awareness among the general populace¹². Since most of the respondents had hearing impairment, these findings were revealing and could possibly be explained by the fact that some television stations use sign language interpreters for their news and other educative segments. 'Interactive sources' such as friends, parents and school teachers were also sources of information and this is similar to the findings in the Indian study cited above¹⁶.

The male condom was the most commonly known method of modern contraceptive just like findings from other studies^{12,17,18}. Reasons for this may be due to various campaign and education about the ability of condom to prevent HIV/AIDS. The sexually experienced respondents in this study were less aware of the various family planning methods when compared to unmarried sexually active men and women from the NDHS 2008, though the age range between the two groups vary. For instance, two thirds of sexually experienced respondents were aware of the male condom in this study compared to an average percentage of 95.0% of sexually active unmarried men and women (97.9% males and 92.2% females) in the national survey. Similarly, 53.6% of sexually experienced respondents in this study were aware of injectables compared to an average percentage

of 61.5% of sexually active unmarried men and women (60.8% males and 62.2% females). Generally, the proportion of respondents in this study who were aware of virtually all modern methods was lower than the sexually active unmarried men and women from the NDHS 2008 except for the female condom. In the case of the female condom, 50.0% of sexually experienced respondents in this study were aware of it compared to an average percentage of 33.0% of sexually active unmarried men and women (38.3% males and 27.7% females)¹². This is probably due to the two-three years time lag between the studies; the female condom is relatively new and was not as widely known a few years ago when the NDHS was conducted. So also, the female condom is not readily available compared with the male condom and most campaigns about barrier method of contraception talks about condoms generally. There is tendency to assume it is the male condom except if it was specified. A Canadian study also reported that the majority of adolescents with physical disabilities reported that they had not received information on parenthood, birth control, and sexually transmitted diseases¹⁹; thus the physically challenged are less likely to be well informed on reproductive health issues than their non disabled counterparts.

Sex, age-group and type of disability or physical challenge all affected the level of awareness on family planning significantly. Out of those who were aware of family planning, 65.7% were males compared to just over a third of females. This is in keeping with most previous studies which showed that males were generally more aware of contraception or family planning compared to females^{12,20}. Males may have the privilege of more information concerning such issues probably due to the fact that they usually have more freedom and our culture is more conservative concerning females. Regarding the age group, 15.2%, 34.9% and 45.8% of respondents in the early, middle and late adolescence respectively were aware of any modern contraceptive device. This was buttressed by findings from the binary logistic regression and it is in keeping with previous studies which showed that those in the older age group were generally more aware of contraception or family

planning compared to those in lower age groups. As the adolescents grow up they are more likely to come in contact with reproductive health information including those on modern contraceptives. This should be expected and it brings out the fact that early adolescents should be equipped with information since some of them may be victim of unprotected sexual intercourse at this stage of their life. However the proportion that knows at least one method of contraception among the respondents is low indicating a need to promote reproductive health issues amongst this group.

About a sixth (16.3%) of the respondents has ever had sexual intercourse. This is lower than the finding among a comparable population of hearing impaired adolescents in Ibadan in which a third of the respondents were sexually experienced²¹. It is also lower when compared with about 45% of adolescents (15-19years old) that have had sexual experience in the NDHS 2008¹². There was no statistically significant relationship between the awareness of any modern family planning method and respondents' sexual experience. This may be due to the fact that messages about contraceptives are not limited to only sexually active ones. However, the sexually active ones could have been more inquisitive and this could be responsible for the fact that more of them were aware although the difference was not statistically significant.

The commonest contraceptive method in use was the condom with 28.6% of sexually active respondents who have ever used the male condom while 14.3% of them have used the female condom before. This is low when compared with what was found among a general population of adolescents in a Malaysian study in which 37% of them reported contraceptive use²⁴. However, most studies on method of contraception in adolescents report that condoms, especially the male condom, was the most widely used^{22,23,24}. After condoms, the next commonly used modern contraceptive methods were COCPs and injectables and this is also in keeping with those studies. Condom use is particularly useful because of its dual protection function of preventing pregnancy and sexually transmitted infections (STIs) including HIV/AIDS. Out of the sexually experienced respondents in this study only about a third (34%) had used any

modern method of contraception. Definitely, many of them would have been victims of unprotected sexual intercourse. This is not healthy for them and the country at large considering the fact that STIs including HIV/AIDS and unwanted pregnancies are preventable. The ever used contraceptive rate (34%) in this study is lower than the average of 57.3% among unmarried sexually active adolescents aged 15-19 (55.9% of females and 58.6% of males) from the reports of the NDHS in 2008. It may also be lower than the National average probably because they (physically challenged ones) have poorer access to contraceptives when compared with the general populace that was studied in the NDHS. Previous studies reported that actual use of contraceptives is usually lower than level of awareness and this has also been found to be the pattern in some Nigerian studies^{22,25}.

Condom use in this study was low: only 25.7% of the sexually experienced respondents used it at last sex and 30% of those who have had sex in the last one year used it. These proportions are higher than findings from a study conducted among hearing impaired students in which about a sixth used condom at last sex but less than that of a similar study in which just over a third used condom at the last sex^{21,26}. Condom is the contraceptive with dual function; hence risk of STIs including HIV/AIDS is high among them. The proportion of respondents who used a condom at last sexual intercourse in this study was similar to that of unmarried youths aged 15 to 19 in the NDHS which averaged 32.1% (36.2% of boys and 28.0% of females)¹². Regarding condom use at first sex, 20% of the sexually experienced in this study used condom at first sex compared to the average percentage of 14.5% of unmarried youths aged 15-19 in the NDHS 2008 (19.5% of boys and 9.5% of girls)¹². About a sixth (17%) of the sexually experienced respondents reported use of condom at every sex, this favorably compares with 18% of respondents in a South African study who reported regular use of condoms²⁷.

Conclusion

The implications of this study are far reaching. As similarly reported in existing literature, the

physically challenged adolescents in this study do have sexual relationships. However, contraceptive awareness and use among them is poor and there is certainly a need for intervention on sex-related issues among them. Efforts should be made to ensure that the physically challenged adolescents are well informed about contraceptives and further research about factors responsible for poor use should be conducted among the sexually active ones so that specific activities can be directed towards improving the use of contraceptives among them. The proportion of males, older adolescents and the visually impaired that are aware about modern contraceptives is significantly more than females, younger adolescents and those with other forms of impairment. This should be put into consideration in case of limited resources.

Acknowledgement

This study was sponsored by the Bill and Melinda Gates Foundation through Population and Reproductive Health Program of College of Health Sciences, Obafemi Awolowo University, Ile-Ife, Osun State, Nigeria.

Conflict of interest

It should also be noted that all authors mentioned in the article approved the manuscript

Contribution of Authors

Folakemi O. Olajide: conceived and designed the study, supervised data collection and prepared the manuscript

Akinlolu G. Omisore: participated in the conception and design of the study as well as data analysis and preparation of the manuscript.

Olujide O. Arije: participated in the design of the study as well as preparation of the manuscript.

Olusegun T. Afolabi: participated in the design of the study and data collection.

Abimbola O. Olajide: participated in data collection and preparation of manuscript.

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