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KNOWLEDGE, ATITUDE AND PERCEPTION TOWARDS CONTRACEPTION USE AMONG ADOLESCENTS IN THE BONGO DISTRICT OF THE UPPER EAST REGION OF GHANA

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ABSTRACT

Background: More recently, contraception has been increasingly studied with regards to adolescent reproductive health. This study sought to investigate the knowledge, attitudes and perceptions of adolescents on contraception in the Bongo District. **Material and methods**: This was a cross-sectional descriptive study using structured questionnaires. Data was analysed using SPSS software (version 20) at two levels: gender and education. **Results:** The average age of first intercourse was 15.8 and 15.9 years for the males and females. Approximately, 94.8% males and 91.3% (P<0.7558) females, compared 95.7% SHS and 80.6% JHS students (P<0.0001) knew correctly what a contraception is. The male condom was preferred by 96.8% males and 91.8% females (P= 1.0000), compared to 83.9% JHS and 96.3% SHS students (p<0.0001). About 19.5% JHS compared to 58.5% SHS student defined STI correctly (P<0.0001). The common STIs identified by SHS students were: HIV/AIDS (89%), gonorrhoea (73.3%), Chlamydia (34.5%) and Hepatitis B (3.4%), compared to HIV/AIDS (75.9%), gonorrhoea (34.5%), malaria (10.3%) and meningitis (6.9%) for JHS. The commonest source of contraceptives was pharmacy stores (55.8%; P<0.0001) for females, and hospitals (50.0%; P<0.0001) for males. Approximately, 67.3% females and 70.8% males (P = 0.9042) agreed that contraception is good. Both females (44.1%) and males (40.7%) identified infertility as the commonest side effect of contraception. Both females (23.1%) and males (26.0%) identified contraception as a method that prevents STIs and unwanted pregnancy. Majority {males (93.7%) and females (87.5%)] of the adolescents want sex education and contraceptives information be incorporated into the school curriculum. **Conclusion:** The respondents had adequate knowledge of contraception with the male condom as the preferred method. Majority of the students suggested that sex education and contraceptives be part of their educational curriculum.

KEYWORDS: Contraception, adolescent, usage, STI, Bongo District, Upper East Region, Ghana.

INTRODUCTION

Contraception (birth control) is a regimen of one or more actions, devices, sexual practices, or medications followed in a prescribed order to deliberately prevent or reduce the likelihood of pregnancy or childbirth.[1] Effective contraception has been proven to have enormous benefits to the individual women, children, family members, the community and the country as a whole.[1] Timely and the correct use of the right choice of an appropriate family planning method by women has been reported to prevent unwanted pregnancies, abortions and the associated complications, sexually transmitted infections (STIs) including HIV/AIDS.[2,3] It is reported to improve maternal and child health by reducing maternal, infant and child morbidity and mortality.[4] Family planning has also been found to promote gender equality as well as promote educational and economic empowerment for women, by having more females in school.[4,5,6]

Despite the enormous benefits of family planning services, the uptake of the service is reported to be in Sub-Saharan African countries.[2] This has resulted in high rates of unwanted pregnancies, unplanned deliveries, unsafe abortions and maternal mortalities in part of the world,[2,4] The situation is not different for Ghanaian women. For instance, the 2014 Ghana Demographic and Health Survey (GDHS)[7] reported

contraceptive usage among young sexually active unmarried women at 33.0% and this potentially suggest an unmet contraceptive needs for this group of persons.

Birth control methods include barrier methods, hormonal birth control, intrauterine devices (IUDs), sterilization, and behavioural methods.[8] The use of contraceptives is influenced by numerous factors, such as the knowledge of contraceptive methods and usage, access to contraceptives, the socio-demographic characteristics and negotiation skills of the person's involved.[9]

Adolescence is defined as the second decade of life, the age between 10 and 19 year,[10] the period of transition from childhood to adulthood, characterised by rapid physical, social and psychological changes as a result of puberty[11]. Since young people live in a life phase of experimentation and discovery, they are exposed to health-related risks such as unwanted pregnancies.[9] Thus the group deserves due attention with a special focus on sexual and reproductive behaviours and hence the importance of the topic of contraception,[10] as issues regarding sex and contraception, may not be discussed at home amongst adolescent and adolescents feel embarrassed going to these facilities for information or services pertaining to sex and contraception.[7]

To develop interventions that will help improve contraceptive use among adolescents, a cross sectional survey to determine the knowledge, attitude and perception towards contraception among junior and senior high school students in the Bongo District in the Upper Eat Region of Ghana was conducted.

MATERIALS AND METHODS

Study design

Institutional cross sectional descriptive study was conducted in the one public Senior High School (SHS) and one public Junior High School (JHS) in the Bongo District in the Upper East Region of Ghana.

Study area

This study was carried out in Bongo the district capital of Bongo District in the Upper East region of Ghana. Bongo district has population of 84,545 with a growth rate of 8.7%. The district lies between longitudes 0.45°W and latitude 10.50°N to 11.09 and has a total area of 459.5 square kilometres. The Bongo District shares boundaries with Burkina Faso to the North, Kassena-Nankana East to the West, Bolgatanga Municipal to the South West and Nada District to South East.

The district is a multi-ethnic one with two major ethnic groups –Bosis and Frafras. There are three major religious groups in the district. These are traditionalists (44.0%), Muslims (7.2%) and Christians (45.1%).

The District Health Management Team (DHMT) is responsible for the overall management of health services in the district. The DHMT is supported by six sub-district Health Management Teams, comprising of 134 communities. These sub-districts are: Bongo central, Bongo Beo, Bongo Soe, Namoo, Zorko and Valley Zone. The following are the health infrastructure in the district: 1 hospital, 5health centres, 1 clinic, 35 functional CHPS Zones and 59 outreach points, 10 feeding centres and 1 rehabilitation centre.

The District currently has 3 public Senior High Schools and 3 private SHS with plans to be absorbed by the government. The District also has 47 public and 3 private Junior High Schools, 72 public and 4 private Primary Schools, and 71 public and 4 private Kindergartens.

Sampling tool/ technique

A list of schools in the district were obtained from the Ghana Education Service (GES) from which two school were picked from Bongo: one JSH and one SHS. These schools were selected by simple random sampling where the names of the schools were written on a piece of paper and two of them selected randomly.

Sample size estimation

The Yamane Equation was employed in the calculation of the sample size**.**

$$n = \frac{N}{1 + N\,(e)^2}$$

Where "n" is the sample size, "N" is the population size which is the total number of JHS and SHS students (8434) in the Bongo district and "e" stands for precision value of 10%. Using 90% confidence interval, the calculated sample size is 99 however 200 questionnaires were administered.

Data collection

A structured questionnaire was designed and used for the study. The first part has questions on the background of participants while the second part contains questions about their knowledge on reproductive health. The third part covers questions regarding contraception and final part of sexually transmitted infections. Both open-ended and closed forms of questions were employed in the questionnaire. The open-ended questions provide a space after the question for the respondent's answer or response whereas the closed ended question contains a question or a statement to which a person responds by selecting one or more choices.

Data sources

Data from this study was obtained from two main sources:

1. Primary data: This is mainly from the administration of questionnaires.
2. Secondary data: From the Bongo District hospital and District Health Assembly records.

Data Analysis
Each of the respondents was assigned an identification number. Codes in the form of numbers were then assigned to each of the responses to the questions for easy data entry and analysis. Data was then entered into Statistical Package for the Social Sciences (SPSS) software Version 20 data view. Variables were defined in the variable view phase of the SPSS software. Scale of measurement, label, decimal places, alignment and missing values were also specified for each variable in the variable view together with cross check and definition of the codes used on the questionnaire for the responses. Data was then analyzed duly using descriptive statistical tools such as frequency distribution tables, graphs, percentages, pie and bar charts.

Quality Control
Questionnaire was pre-evaluated by my supervisor and pre-tested on some of the JHS and SHS students encountered in order to assess the clarity of the wording of the questionnaire, the feasibility of the design procedure for data processing and analysis, and any potential problems. The respondents were given special identification numbers to avoid double counting. Data entry and analysis was conducted in Statistical Package for the Social Sciences (SPSS) version 20 for windows and through the use of simple descriptive statistics. As for the result, percentages, tables, pie and bar charts were employed in illustrating relationships between variables of interest in the study.

Ethical Consideration
Ethical clearance was obtained from the ethical committee of the School of Medicine and Health Sciences of the University for Development Studies (SMHS-UDS). Permission was also sought from the district education and the school authorities. The informed consent of participants was sought before interview began. In addition, inducement, coercion and pressure of any kind were refrained from. Confidentiality and anonymity of participants were assured.

RESULTS

Socio-Demographic Characteristics of Respondents
A total of 200 students, 36 (18%) from Salegba Junior High School (JHS) and 164 (82%) from the Bongo senior high school (SHS) were interviewed (p<0.0001). Their ages ranged from 10-19 years, with mean age of 17.3 ±1.7, median age of 18.0 years and a modal age group of 17-19 years. There were 96 (48%) males and 104 (52%) females (P=0.4840). The great majority 167 (83.5%) were Christians **(Table1).**

Knowledge on Contraception and Sexually Transmitted Infections
The average age of initiation of sexual activity for the study population was 15.81 years; with 15.76 and 15.87 years respectively for the males and females. The great majority (93.0%) of the respondents knew what a contraceptive is. There was no positive statistical difference between males and female students (P<0.7558) **(Table 2).** There was however a significant difference between the two levels of education; (SHS vs JHS: P<0.0001). The study population had good knowledge on the definition of contraceptive **(Table 2).**

The commonest source of information on contraceptives for the SHS students was the electronic media (31.3%) compared to 35.4% for the JHS students **(Figure 1).** Similarly, 33.5% of the males compared to 36.6% females reported electronic media to be their commonest source of information on contraceptives.

The male condom was the contraceptive commonly identified by most students, it was also the best contraceptive method at the educational and gender levels **(Table 2).** However, there were no significant gender differences **(Table 2).**

A little above half (58.5%) of the respondents in SHS were able to define a sexually transmitted infection (STI) as an infection which is transmitted through sexual intercourse with an infected person compared to only 19.4% of the JHS students **(Table 3**). Similarly, 54.8% of the females students compared to 47.9% of their male counterparts could define STIs correctly **(Table 3).** The following in descending order were identified by the SHS study as STIs: HIV/AIDS (42.2%), gonorrhoea (34.3%), chlamydia (9.3%) and Hepatitis B viral infection (7.0%). For the JHS students, the order was: HIV/AIDS (57.9%), gonorrhoea (26.3%), malaria (7.9%) and Chlamydia (2.6%) **(Table 3).** Regarding gender and their knowledge on the types of STIs, the patterns were similar **(Table 3).**

Attitudes and Perceptions Concerning Contraception
The male condom (25.1%) was the best contraceptive methods identified by the study population **(Table 4a).** At the level of education, abstainers was the best method for JHS (63.9%), while the male condom was selected as the best method by SHS students (56.7%) (Table 4b). Approximately 57.3% females and 46.2% males similarly selected the male condom as the best contraceptive method **(Table 4c).**

The major source of contraception for the female student (31.9%) and the SHS students (31.6%) were the pharmaceutical stores. For the males (42.4%) and the JHS students (42.4%), Government hospitals were the common sources for their contraceptives **(Figure 2).**

Regarding the usage of contraceptives, both females and males agreed the practice was is good with significant positive association (P<0.0001). At the education level, although the practice was generally agreed to be good, but while there was a significant positive association with the SHS (P<0.0001), is was not significant (P=) at the JHS level **(Table 5).**

The common reasons identified why people use contraceptives by both females and males, in descending order were: decrease the risk of both STIs and unwanted pregnancy, decrease the risk of STIs and decrease the risk of unwanted pregnancy **(Table 6).** Lack of sexual satisfaction was identified by both females (42.1%) and males (65.9%) against the use of contraceptive by people **(Table 6).**

Both females (46.3%) and males (45.0%) who have heard of contraceptives identified infertility as the commonest side effect. There were no significant positive associations between females and male regarding their knowledge on the side effects of contraceptives **(Table 7).**

Attitudes towards Sex Education

Among the respondents from SHS more than half, 72.6% of them have ever received sex education from their parents, compared to 44.5% for the JHS students **(8).**

The majority of the males 79 (82.3%) and females 86 (82.7%) would prefer their parents to talk to them about sex and contraception in the house.

The majority of the males 90 (92.8%) and 91 (87.5%) of the females would also prefer their teachers to talk to them about sex and contraception in the schools.

DISCUSCUSSIONS

Early age of unprotected sexual activity among the youth has been be reported to be a major risk factor for unwanted pregnancies, unsafe abortions, and sexually transmitted infections (STIs) including HIV/AIDS,[2,3] thus, the need for effective contraceptive practice in this group.[4,5,6] The current study reveals that respondents (students) started sexual activity at an early and unacceptable age (mean age of 15.8 years), with little or no knowledge regarding the consequences. For instance, the mean age for male students was 15.8 years, with 15.9 years for females. These values are slightly lower than those reported by two previous studies in Ghana.[7] For instance, the GDHS in 2014, found the median age at first intercourse to be18 years for females and 20 years for males.[7] Similarly, the Guttmacher Institute reported a mean age of 17.4 years for females and 19.5 years for males.[12]

The great majority of the students had knowledge as to what a contraceptive was and approximately 93.0% knew at least one contraceptive method correctly. This is slightly lower than values reported globally,[13] and in Ghana.[7,14] A study by Yidana et al., (2015) showed that majority of their study population (74%) have knowledge of contraceptive methods,[14] however the values were lower than that found by this current study.

The commonest contraceptive method identified by the respondents at the level of education and gender was the male condom. For instance, the first three methods identified by the males in descending order were: male condom, female condom and the injectable. Similarly, for the females the order was: male condom, female condom and the withdrawal method. The choice of contraceptive methods in this current study supports those of previous studies that reported the male and female condoms as the most used methods.[15] However, the first choice of contraceptive identified by students in this current differs from other studies.[16,17] For example, a study conducted in Nigeria found the commonest contraceptive method among their respondents to be the injectables.[17]

Regarding the level of education of the respondents and the ability to identify at least one contraceptive correctly, the study found 95.7% for the SHS students and 80.6% for the JHS students (P<0.0001) respectively. This supports Boamah et al., (2014), study among adolescences in Kintampo; Ghana, which found high level of education to be associated with increased knowledge of contraceptive methods.[18]

The commonest source of information on contraceptives identified by the students was the electronic media. This is similar to reports of previous study in the southern Ghana.[19]

The study population identified the pharmaceuticals/drug stores in the Bongo as the major points one can buy contraceptives, although there were some variations with respects to gender and the level of education. For instance, the commonest source for the males is the Government hospitals (P<0.0001) compared to the pharmaceuticals/drugs stores (P<0.0001). Again, 59.3% SHS identified pharmaceuticals/drugs stores (P<0.0001), while 50.0% of the JHS identified Government hospitals. This is similar to Casey et al study in the Democratic Republic of the Congo, who reported that majority of their study population received their contraceptives from a supported health facility.[20]

In the current Bongo study, majority of the respondents think it's good to use contraceptive methods (78% males vs 67% females). This is however, in contrast to what was reported by Prinsloo et al., (2005) that 40.9% of males do not approve contraceptive use, 21.7% approved and 37.4% were unsure.[21]

When respondents were asked the reasons why they think it is good to use contraception the majority of them said because contraceptives can prevent both sexually transmitted infections and unwanted pregnancies and it is only the condoms which offer dual protection. Concerning the hormonal methods and the others the respondents from this study gave the following as some of the side effects fertility; affect the regularity of menses, weight gain and nausea. A similar reason was given by teenage females in a study that using oral contraceptive pills would make them gain weight,[20,21]

Also similar reasons were cited in study by Prinsloo et al that these contraceptives may cause sterility (27.2%).[21]

Majority of the respondents identified the first three common STIs as: HIV/AIDS gonorrhoea and chlamydia. This pattern is similar previous studies.[11] However, the current pattern differ Rondini et al., (2009), who reported gonorrhoea and syphilis as the common STIs.[22]

A good number of the students in this current had a talk with their parents about sex and contraception. For instance, 59.0% of the males and 75.0% of the female had information from parents, this is far higher than the 29.1% for males and 26.4% for females reported in Prinsloo et al., (2005) study, who indicated that their parents had discussed contraception with them.[21] An overwhelming majority of respondents from this study (93.8% vs87.5%females) felt they would like to receive sex education in school citing such reasons as help teenagers know and appreciate the dangers and consequences of unsafe sex, help to prevent teenage pregnancy and unwanted pregnancy, and dispel myths associated with sex and contraception. These responses are similar to that of a study in Brazil which noted that students felt there was a need for further formal sexual education.[16] In contrast however, Aaron et al (2002) observed that American teenagers felt they would rather not receive sex education from school as they felt their teachers would be out of touch with contemporary culture.[23]

CONCLUSIONS

Majority of participants knew what a contraceptive is and most could correctly identify at least one method of contraception. The most popular contraceptive was the male condom among the study participants. Majority of the study population had talks with their parents on sex education.

Similarly, the great majority of the agreed that sex education in schools would be a good idea as it would educate them on the dangers of unsafe sex practices and even power them to refuse sex.

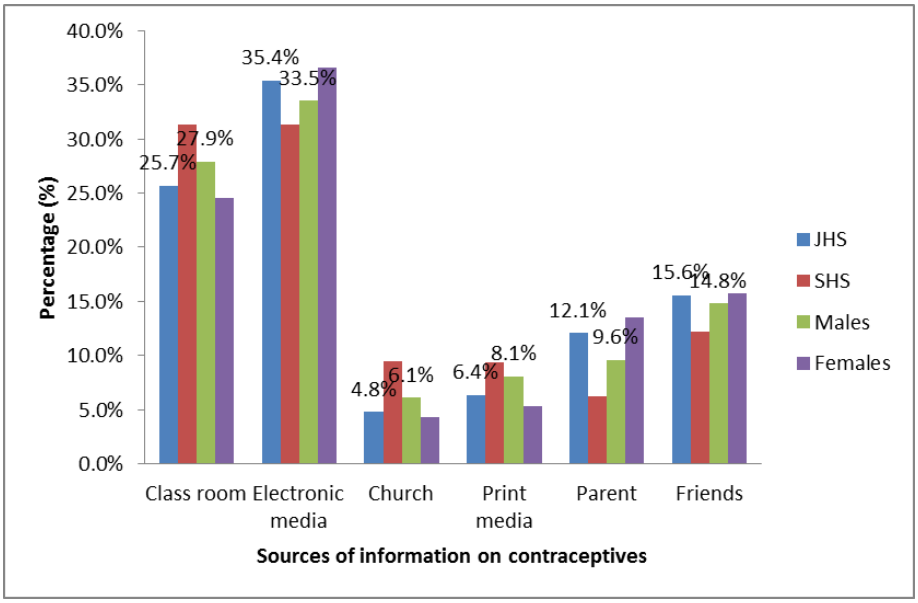

Figure 1: Sources of information on contraceptives by students

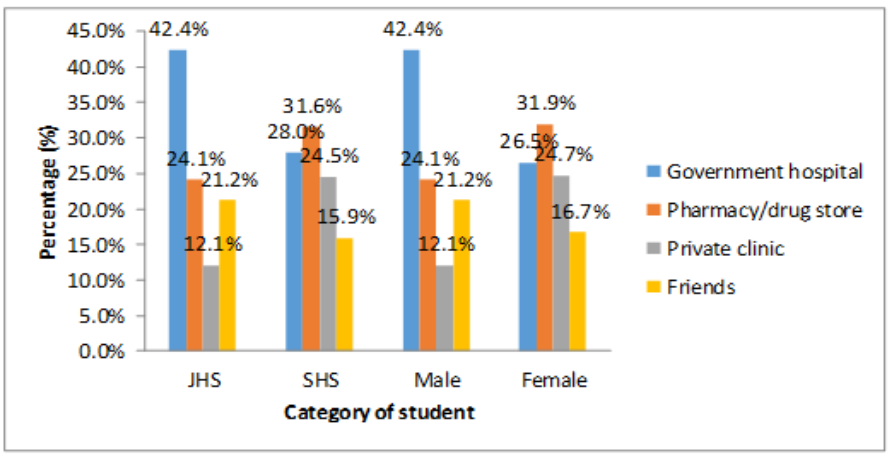

Figure 2: Sources of contraceptives by students.

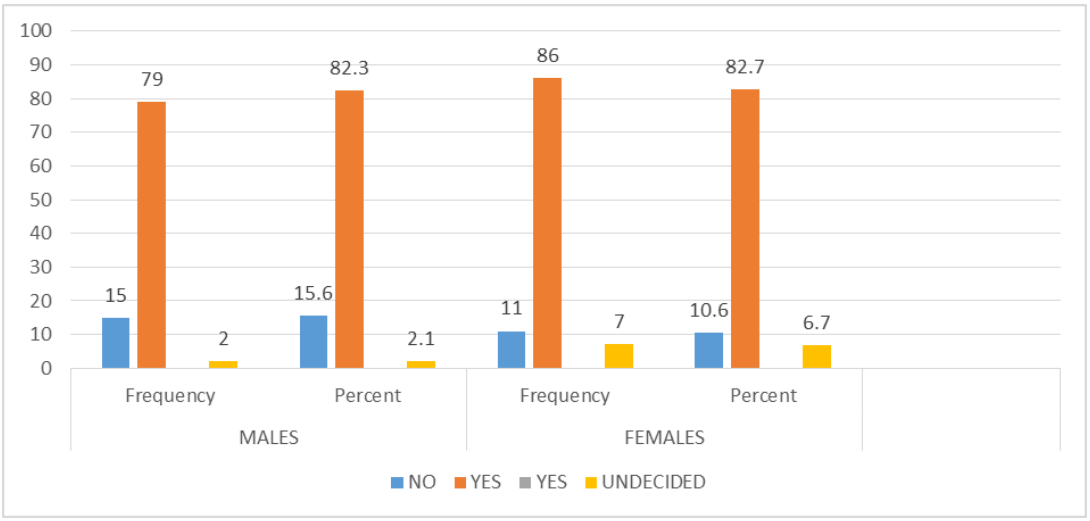

Figure 3: Would you like your parents to talk to you about sex?.

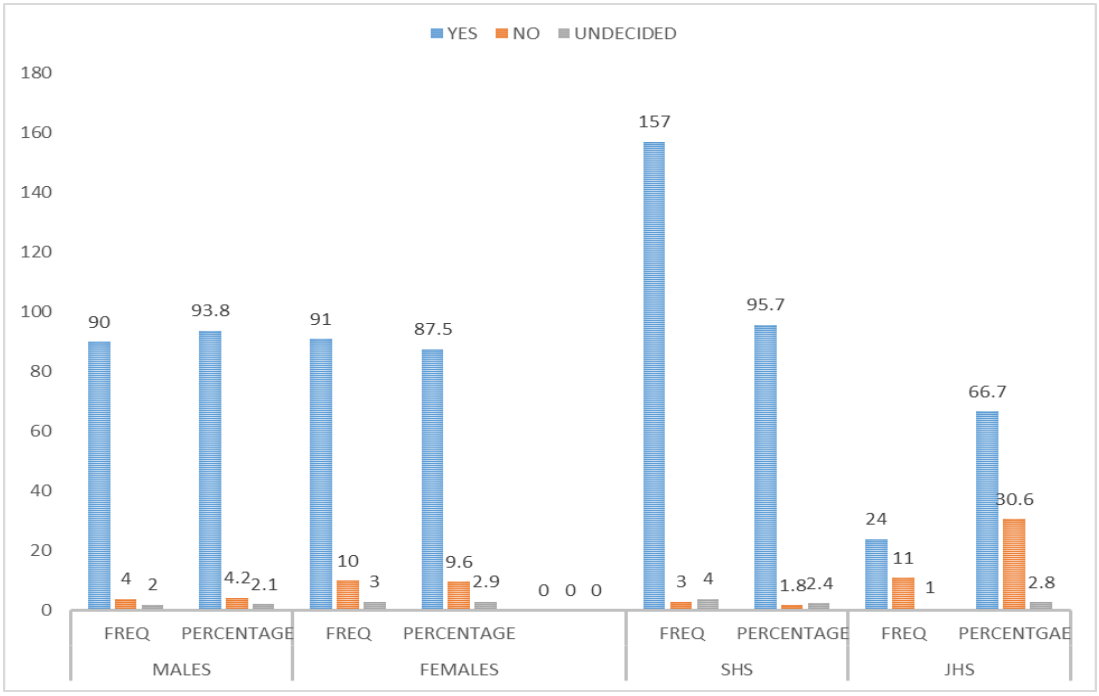

Figure 4: Do you think sex education should be taught in school.

Table 1: Sociodemographic characteristics of respondents.

Item	JHS (n/%)	SHS (n/%)	P-values
Age group (years)			
11.-13	9(25.0)	1(0.7)	0.0011
14 - 16	21(58.3)	15(9.1)	0.2384
17-19	6(16.7)	148(90.2)	0.0001
Total	36(100.0)	164(100.0)	
Gender			
Male	17(47.2)	79(48.2)	0.0001
Female	19(52.8)	85(51.8)	0.0001
Total	36(100.0)	164(100.0)	
Religion			
Christian	31(86.1)	137(83.5)	0.0001
Muslims	3(8.3)	25(15.2)	0.0002
Traditionalist	2(5.6)	2(1.2)	1.0000
Total	36(100.0)	164(100.0)	

Table 2: Respondent's knowledge on contraceptives: Level of education and gender stratification.

	Level of education			Gender		
Parameter	**JHS (n/%)**	**SHS (n/%)**	**P-values**	**Male (n/%)**	**Female (n/%)**	**P-values**
1. Have you heard of contraceptives?			0.0001			0.7558
Yes	29 (80.6)	157(95.7)		91(94.8)	95(91.3)	
No	7(19.4)	7 (4.3)		5(5.2)	9(8.7)	
2. What is a contraceptive?			1.0000			1.0000
The use of oral contraceptive pills	1(2.8)	1(0.6)		1(1.0)	1(1.0)	
First sexual behaviour by uses of contraceptives	1(2.8)	1(0.6)		1(1.0)	1(1.0)	
Method to space child birth	6(16.7)	23(14.0)		14(14.6)	15(14.4)	
Methods to prevent pregnancy	7(19.4)	32(19.5)		17(17.7)	22(21.2)	
Methods to prevent disease or pregnancy	1(2.8)	20(12.2)		9(9.4)	11((10.6)	
A drug used during sexual intercourse	1(2.8)	4(2.4)		1(1.0)	1(1.0)	
Methods used to prevent sperms from reaching the vagina	1(2.8)	1(0.6)		1(1.0)	1(1.0)	
Not stated	18(50.0)	82(50.0)		52(50.0)	52(50.0)	
Total	36(100.0)	164(100.0)		96(100.0)	104(100.0)	
2. Which of the following is a contraceptive?						1.0000
Oral pills	12(15.8)	85(13.2)		42(11.3)	55(15.0)	
Intrauterine device	2(2.6)	27(4.2)		15(4.2)	14(3.8)	
Injectable	4(5.3)	61(9.5)		33(9.3)	32(8.7)	
Male condom	26(34.2)	155(24.1)		91(25.6)	90(24.6)	
Female condom	12(15.8)	115(17.9)		62(17.5)	65(17.8)	
Spermicide	5(6.6)	34(5.3)		20(5.6)	9(2.4)	
Inplants	3(3.9)	20(3.1)		14(3.9)	19(5.2)	
Withdrawal method	3(3.9)	56(8.7)		25(7.0)	35(9.6)	
Rhythms method	4(5.3)	36(5.6)		22(6.2)	18((4.9)	
Male sterilisation	2(2.6)	27(4.2)		16(4.5)	13(3.6)	
Female sterilisation	3	28(4.3)		15(4.2)	16(4.4)	
Total	76(100.0)	644(100.0)		355(100.0)	366(100.0)	
3. **Which of the following is the best contraceptive method?**						1.0000
Male condom	7(19.4)	93(56.7)		55(57.3)	48(46.1)	
Female condom	2(5.6)	10(6.1)		9(9.4)	8(7.7)	
Injectable	1(2.8)	1(0.6)		1(1.0)	3(2.9)	
Spermicide	-	-		-	-	
Implants	1(2.8)	3(1.8)		1	3(2.9)	
Rhythm method	-	-		-	-	
Intrauterine device	1(2.8)	1(0.6)		1(1.0)	1(1.0)	
Sterilisation (Both sexes)	1(2.8)	1(0.6)		1(1.0)	1(1.0)	
Oral pills	4(11.1)	14(8.5)		6(6.3)	7(6.7)	
I don't know	19(52.8)	41(25.0)		22(22.9)	33(31.7)	
Total	36(100.0)	164(100.0)		96(100.0)	104(100.0)	

Table 3: The knowledge of respondents on sexually transmitted infections (STIs) and the categories.

Parameter	**Level of education**		**Gender**	
	JHS (n/%)	**SHS (n/%)**	**Male (n/%)**	**Female (n/%)**
1. What is STI				
Viral infection	2(5.6)	1(0.6)	1(1.0)	2(1.9)
A way of transferring infection to someone	2(5.6)	6(3.7)	2(2.1)	4(3.8)
Disease that kill at anytime	2(5.6)	3(1.8)	4(4.2)	2(1.9)
Disease transmitted through sexual contact with an infected person	7(19.4)	96(58.5)	46(47.9)	57(54.8)

Infection that cause harm to the reproductive system	0(0)	6(3.7)	4(4.2)	1(1.0)
I don't know	23(63.9)	52(31.7)	39(40.6)	38(36.5)
Total	36(100.0)	164(100.0)	96(100.0)	104(100.0)
2. Which of the following is an STIs				
Gonorrhea	10(26.3)	112(34.3)	68(37.8)	54(29.2)
Meningitis	2(5.3)	14(4.3)	8(4.4)	8(4.3)
Chlamydia	1(2.6)	30(9.2)	16(8.9)	15(8.1)
Hepatitis	0(0)	23(7.0)	9(5.0)	14(7.6)
Malaria	3(7.9)	1(0.3)	2(1.1)	2(1.1)
HIV/AIDS	22(57.9)	138(42.2)	74(41.1)	86(46.5)
Typhoid	0(0)	9(2.8)	3(1.7)	6(3.2)
Total	38(100.0)	327(100.0)	180(100.0)	185(100.0)

Table 4a: Common contraceptives identified by the study population.

ALL STUDENTS		
	Frequency (n)	**Percentage (%)**
ORAL CONTRACEPTIVE PILL	97	13.5
INTRAUTERINE DEVICE	29	4
INJECTABLES	65	9
MALE CONDOM	181	25.1
SPERMICIDE	39	5.4
FEMALE CONDOM	127	17.6
IMPLANTABLE	23	3.2
WITHDRAWAL METHOD	60	8.3
RHYTHYM METHOD	40	5.6
MALE STERILIZATION	29	4
FEMALE STERILIZATON	31	4.3
Total	**721**	**100**

****: Multiple choices were allowed.**

Table 4b Best contraceptive method identified at the levels of education.

	Junior high school		**Senior high school**		
Methods	**Frequency (n)**	**Percentage (%)**	**Frequency (n)**	**Percentage (%)**	**P-Values**
Abstainers	23	63.9	44	26.8	0.0001
Male condom	7	19.4	93	56.7	0.0001
Female condom	2	5.6	10	6.1	0.0001
Injectable	1	2.8	1	0.6	0.0003
Spermicide	0	0	0	0	-
Implantable	1	2.8	3	1.8	0.0002
Rhythm method	0	0	0	0	-
Intrauterine device	1	2.8	0	0	0.0001
Sterilization	1	2.8	0	0	0.0001
Oral pills	0	0	12	7.3	0.0001
Sterilization	0	0	1	0.6	0.0001
TOTAL	36	100	164	100	

***Confidence level = 95%; Critical Value = 1.96; and Level of Significance = 0.05**

Table 4c: Best contraceptive method identified by gender stratification.

	FEMALES	**MALES**			
Method	**Frequency (n)**	**Percentage (%)**	**Frequency (n)**	**Percentage (%)**	**P-Values**
Abstainers	34	32.7	28	29.2	0.0002
Male condom	48	46.2	55	57.3	0.0002
Female condom	8	7.7	7	7.3	1.0000
Injectable	3	2.9	0	0.0	-
Spermicide	0	0	0	0.0	-
Implantable	4	3.8	0	0.0	0.0001

Rhythm	0	0.0	0	0.0	-
Intrauterine device	0	0.0	0	0.0	-
Female sterilization	0	0.0	0	0.0	-
Male sterilization	0	0	0	0.0	0.0001
Oral pills	7	6.7	6	6.3	1.000
Total	104	100.0	96	100.0	

***Confidence level = 95%; Critical Value = 1.96; and Level of Significance = 0.05**

Table 5: Respondents (gender) opinion on whether Contraceptive usage in good

	FEMALES		**MALES**	
By Gender	**Frequency (n)**	**Percentage (%)**	**Frequency (n)**	**Percentage (%)**
YES	70	73.7	68	74.7
NO	25	26.3	23	25.3
Total	95	100.0	91	100.0
P-Values	<0.0001		<0.0001	
By level of education	SHS		JHS	
	Frequency (n)	Percentage (%)	Frequency (n)	Percentage (%)
Yes	126	80.0	16	55.2
No	31	20.0	13	44.8
Total	157	100.0	29	100.0
P-Values	<0.0001		0.3333	

Confidence level = 95%; Critical Value = 1.96; and Level of Significance = 0.05

Table 6: The reasons for and against the use of contraceptives by gender stratification.

	FEMALE		**MALES**	
1.*Reasons For the use of contraceptives*	**Frequency (n)**	**Percentage (%)**	**Frequency (n)**	**Percentage (%)**
Decreases the risk of unwanted pregnancy	13	13.7	13	14.3
Decreases the risk of STIs	15	15.8	19	20.9
Decreases the risk of both STI and unwanted pregnancy	24	25.3	25	27.5
Provides protection	3	3.2	6	6.6
Prevents excessive population	1	1.1	0	0.0
Good health	2	2.1	0	0.0
I don't know	37	38.9	28	30.8
Total	**95**	**100.0**	**91**	**100.0**
2.Reasons against the use of contraceptives				
Children are blessings from God	1	1.1	0	0
Affects regularity of menses	1	1.1	0	0
Contraceptives could be dangerous to health and not good	3	3.2	3	3.3
can cause infection and hence not good	3	3.2	0	0
Infertility	4	4.2	0	0
Lack of sexual satisfaction	40	42.1	60	65.9
I don't know	43	45.2	28	30.8
Total	**95**	**100.0**	**91**	**100.0**

Table 7: Side effects of contraceptives identified by male and female respondents.

Side effect	**Females**		**Males**	
	Frequency (n)	**Percentage (%)**	**Frequency (n)**	**Percentage (%)**
Infertility	44	46.3	41	45.0
Menstrual irregularities	35	36.9	37	40.7
Risk of weight gain	10	10.5	6	6.6
Nausea and vomiting	6	6.3	7	7.7
Total	95	100.0	91	100.0

Table 8: Parents involvement in sex education.

Have your parents ever talked to you about sex?					
CATEGORY	**MALES (n/%)**		**FEMALES (n/%)**		**P VALUES**
Yes	57	59.5	78	75.0	0.0148
No	37	38.5	22	21.0	0.0097
Don't remember	2	2.1	4	4.0	0.5671
TOTAL	96	100	104	100	
CATEGORY	**SHS (n/%)**		**JHS (n/%)**		**P VALUE**
Yes	119	72.6	16	44.5	0.0001
No	39	23.8	20	55.5	0.0008
Don't remember	6	3.7	0	0	0.0022
TOTAL	164	100.0	36	100.0	

Confidence level = 95%; Critical Value = 1.96; and Level of Significance = 0.05

Recommendations

To effectively increase the knowledge of contraception among adolescents and hence promote good attitudes towards contraceptive use and safe-sex practices with the aim of decreasing teenage pregnancy and incidence of STIs in particular HIV/AIDS, the following bodies should consider the suggestions below:

The District Health Director, Chief and Opinion Leaders of the Bongo District

The Youth Friendly centre which has been under construction should be made a high priority in the district to enable the community adequately address some of the reproductive health and other needs of adolescents in the district.

The Ministry of Education

1. Current curriculum on contraceptive education should be reviewed and revised as deemed necessary to keep up with contemporary culture as a means of helping them relate better with the subject matter.
2. Sex and contraceptive information should be introduced as a compulsory subject in junior and secondary schools to equip adolescents with the necessary knowledge.
3. School guidance counsellors should receive some training so as to be able to help adolescents in a non-judgmental manner and on a one-on-one platform.

The Ghana Health Service and Ministry of Health

1. More funds should be earmarked for use in public health campaigns on STIs and contraception primarily targeting adolescents. These campaigns should be carried especially on television and in newspapers.
2. Seminars and training programmes should be conducted if necessary for health professionals to enable them address the needs reproductive health needs adolescents with emphasis on mutual respect and confidentiality.

All Media Houses

1. Television stations should consider shifting programs with mature content into hours when adolescents are very unlikely to be at home or awake.
2. Television programs which focus on adolescent health should be introduced to educate adolescents.
3. An adolescent reproductive health column should be introduced in newspapers and magazines. The above two points would help inform not only adolescents but also parents to increase their knowledge base and empower them to talk and advise their children more productively.

Ac Conflict of Interest

There is no conflict of interest.

Consent to Publish This Case Report

We obtained a written permission from the Municipal health director and also verbal consent from all the participants.

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Author's Contributions

DKA, RK and EDM drafted the case reports. DKA and RK collected and analysed the data. DKA, RK and EDM did the discussion, read through the article, edited and approved the final draft for publication.

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REFERENCES

1. Family Planning: A Global Handbook for Providers. World Health Organization and Johns Hopkins Bloomberg School of Public Health. https://apps.who.int/iris/bitstream/handle/10665/260156/9780999203705-eng.pdf?sequence=1, 2018.

2. Eliason, S., Baiden, F., Quansah-Asare, G., Hayfron, G., Bonsu, D., Philips, J., et al., Factors influencing the interaction the intention of women in rural Ghana to adopt postpartum family planning. Reprod health, 2013. Retrieved from http://ncbi.nlm.nih.gov /pmc/articles/PMC3724747.
3. Sachs, J., McArthur, J. The millennium project: a plan for meeting the millennium development goals. PubMed, 2005; 365: 347-353.
4. Awusabo-Asare, K., Bankole, Kumi-Kyereme, A. Views of adults on adolescents' sexual and reproductive health: qualitative evidence from Ghana. Guttmacher Institute, 2008.
5. Yue, K., C, O., Sparks, P. The effect of spousal communication on contraceptive use in central Terai, Nepal. Patient Educ Couns, 2010; 81: 402-408.
6. World Health Organization. Family planning / contraception factsheets, Retrieved from http://www.who.int/mediacentre/factsheets/fs351/en/ , 2018.
7. Ghana Statistical Service (GSS), Ghana Health Service (GHS), ICF Internationale. Ghana Demographic Health Survey. GSS; GHS; ICF International, Rockville, Maryland, USA, 2014.
8. Jain R, Muralidhar S. Contraceptive methods: needs, options and utilization. *J Obstet Gynaecol India*, 2011; 61: 626-634. doi:10.1007/s13224-011-0107-7.
9. Karim, A., Magnani, R., Morgan, G., Bond, C. Reproductive health risk and protective factors among unmarried youth in Ghana. Int Fam Plan Perspect, 2003; 29: 14-24.
10. UNDO/UNFPA/WHO. Specamial program of Research Development and Research Training in Human are productive Health (HRH), Progress in Reproductive Health Research, Geneva, Switzerland World Bank, 2003.
11. World Health Organization. Strengthening the provision of adolescents-friendly health services to meet health and development needs of adolescents in Africa. Harare, Zimbabwe. Geneva World Health Organization. Retrieved from http://www.who.int /iris/handle/10665/66876, 2001.
12. Alan Guttmacher Institute. Adolescents in Ghana: Sexual and reproductive health, New York, 2004.
13. Martins, M. L., Costa-Paiva, L., José D Osisc, M., Helena de Sousac, M., Neto, A. M., Tadini, V. Knowledge of contraceptive methods among adolescents students. *Revista de Saúde Pública. 2006; 40*.
14. Yidana, A., Ziblim, S.D., Azongo, T.B., Abass, Y.I. Socio-cultural determinants of contracptive use among adolescents in Northen Ghana. *Scientific and academic publishing, 2015; 5*: 83-89. doi:10.5923/j.phr.20150504.01
15. Netshikweta, L.M. Knowledge, perception and attitudes regarding contraception among secondary school learners in the Limpopo Province. Medicine, 2009.
16. Trajman, A., Belo, M. T., Teixeira, E. G., Dantas, V. C., Sallmãol, F. M.,Cunha, A. J.. Knowledge about STD/AIDS and sexual behaviour among high school students in Rio de Janeiro, Brazil. *SciELO Analytics*. Retrieved from http://dx.doi.org/10.1590/S0102-311X2003000100014, 2003.
17. Omo-Aghoja, L., Omo-Aghoja, V., Aghoja, C., Okonofua, F., Aghedo, O., Umueri, C.,Inikori, K. Factors associated with the knowledge, practice and perceptions of contraception in rural Southern Nigeria. *Ghana Med J., 2009; 43*: 115 – 121.
18. Boamah EA, Asante KP, Mahama E, Manu G, Ayipah E, Adeniji E, Owusu-Agyei S. Use of contraceptives among adolescents in Kintampo, Ghana: a cross-sectional study. *Open Access J Contracept*, 2014; 5: 7-15. https://doi.org/10.2147/OAJC.S56485.
19. Nettey, O. E., Enuameh, Y. A., Mahama, E., Sulemana, A., Adjei, G., Gyaase, S., et al. Family planning needs of adolescents in predominantly rural communities in the central part of Ghana. *Open journal of preventive medicine, 2015; 5*: 269-279. http://dx.doi.org/10.4236/arsci.2015.31001.
20. Casey, E.S., Gallagher, C.M., Kakesa, J., Kalyanpur, A., Muselemu, JB., Raoza Vololona R.R., et al. Contraceptive use among adolescent and young women in North and South Kivu, Democratic Republic of the Congo: A cross-sectional population-based survey. PLOS Medicine, 2020; 17: e1003086. https://doi.org/10.1371 /journal.pmed.1003086
21. Prinsloo, E., Nortje, J.,Joubert, G. High school students' attitudes, practices and knowledge of contraception in Jozini, KwaZulu. *South African family practice jounal, 2005; 54 - 57*.
22. Rondini, S.,Krugu, J. K. Knowledge, attitudes and practices study on reproductive health among secondary schools in Bolgaatanga, Upper East, Region, Ghana. African journal of reproductive health, 2009; 13: 51 - 66.
23. Aaron, S. J.,Jenkins, R. R. Sex, Pregnancy, and Contraception-Related Motivators and Barriers Among Latino and African-American Adolescents. *Journal of Sex Education*, 2002: 5-30.