



Parental support on adolescent contraception uptake - a cross-sectional study in Tamale metropolis Ghana

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Evidence in Context

- Parents largely support and advocate adolescent contraceptive use.
- Parental attitudes tie to their education and prior contraceptive experiences.
- Parents play a crucial role in educating adolescents about contraceptives.
- Misconceptions about contraceptive risks still exist.
- Better communication could help address these misconceptions.

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Abstract

Background: Globally, adolescent pregnancies pose serious public health issues, especially in low and middle-income nations like Ghana. Parental attitudes towards contraception significantly impact adolescents' access to and use of contraceptive services. This study aims to assess parental support in the uptake of contraception among adolescents within Tamale Metropolis.

Methods: A cross-sectional study with a quantitative approach using consecutive sampling was used. This was conducted using parents or guardians of adolescents in the Tamale Metropolis. A total of 424 parents were recruited using a consecutive sampling method. The sample size for the study was determined using the Snedecor and Cochran (1989) formulae using a margin of error of 5%. A 10% non-response rate was also calculated and added to the sample size. The data was collected over three months, from December 1, 2023, to February 28th, 2024. This study was limited to parents and guardians of adolescents who consented to the study, understood and spoke Dagbani or English, and were mentally sound. The data analysis was done using Statistical Package for Social Sciences (SPSS) version 27 with $P < 0.05$.

Results: Many parents (68.2%) had ever patronized contraceptive services and 61.1% would recommend contraceptives to their children aged 16 and above. A majority of the parents (83.9%) agreed that it is imperative for youngsters to have access to contraceptives, and 67.5% expressed comfort in discussing contraceptive methods with their adolescent children. Variables such as educational level ($p=0.007$), occupation ($p=0.001$), spouse's/partner's education level ($p=0.025$), having heard of contraceptive methods ($p=0.001$), and having ever utilized family planning services ($p=0.024$) were significantly associated with parents' willingness to recommend contraceptives to their children.

Conclusion: The study revealed positive attitudes of parents towards contraceptive use among adolescents. The majority of parents expressed willingness to recommend contraceptives to their adolescent children. Therefore, to improve contraceptive use among adolescents, it is important to increase parental education on contraception to maintain their positive attitudes toward contraceptive utilization.

Keywords: Contraception, parental support, adolescent pregnancies, adolescent, Ghana



Introduction

Adolescents according to World Health Organization (2015), are between the ages of 10-19 years [1]; the organization is conscious that adolescence is a chapter in an individual's life, and cannot be regarded as an immovable period [2]. In low- and middle-income nations, it is estimated that between 21 million 15 and 19-year-old teenage females become pregnant a year and give birth to roughly 12 million babies[3]. According to projections from the Ghana Health Service (GHS), over 500,000 Ghanaian women between the ages of 10 and 19 became pregnant between 2016 and 2020. On average, more than 111,000 adolescent pregnancies take place each year. Females between the ages of 10 and 14 were about 13, 444 of the teen births during this time [4]. Adolescent pregnancies are associated with poor social and economic circumstances [5], and around the world, this phenomenon is viewed as a severe public health concern [6]. High school dropout rates and teen pregnancies are linked, suggesting detrimental effects on the prospects of the afflicted girls [7][8]. Regular contraceptive usage lowers teen pregnancies [9], helps with population control[10], and lessens teenage sexual problems such as STI spread [11-12]. However, many adolescents want to prevent conception or put off their subsequent undesired pregnancies, yet, an estimated 222 million women and girls all over the world do not utilize any type of contraception [13] as a result of parental views [14].

In many developing nations, parents continue to have a significant effect on their children despite the erosion of conventional standards and expectations [15]. A study done in Ghana found that all the teenagers interviewed believed that if their parents discovered they were using hormonal contraceptives, their parents would be quite unhappy [16]. Numerous variables, such as financial position, color or culture, family structure, parents' educational goals, parental care, and life experience, have an impact on adolescent sexual behavior [11]. Although the consequences of teenage pregnancy have been recognized as being dire, efforts to reduce the increasing rate have not yielded much result. Parents' support for adolescents to use contraceptives could improve access and utilization. Unfortunately, not enough attention is paid to parental support in curbing this menace. This study, therefore, aimed to assess parental support in the uptake of contraception among adolescents within the Tamale Metropolis.

Methods

Study design

A cross-sectional study was conducted between December 2023 and February 2024 to determine parental support for the uptake of contraception among adolescents within the Tamale Metropolis.

Study area

This study was conducted in the Tamale Metropolis, located in northern Ghana, with a total population of 223,252. It consists of three (3) Sub-metropolitan areas: Tamale Central, Tamale South Sub-Metro, and Tamale North Sub-metropolitan. These areas comprise 115 communities [17]. The Tamale Metropolitan Assembly (TAMA) is situated in the Northern Region, which is the largest region in Ghana in terms of landmass [70,384 square kilometers]. Tamale is the capital of the Northern region. The Metropolis is in the central part of the Northern Region and lies between latitude 0°36' and 0°57' West and 9°16' and 9°34' North. East Gonja bounds the metropolis to the south, Central Gonja to the southwest, Mion district to the east, and the Sagnarigu district to the west and north. According to the 2021 Population and Housing Census (PHC), the metropolis is the most populated (374,744) of the districts in the Northern Region, with 185,051 (49.4%) males and 189,693 (50.6%) females (Tamale Metropolitan Assembly, 2021). The metropolis is home to people of different ethnic groups such as the Dagombas, Gonas, Mamprusis, Dagaabas, Akan, Ga-Dangme, Ewe, Guan, Gurma, Grusi, Mande, and Frafras, with the Dagombas comprising the majority. In the Metropolis, Muslims are the most densely populated (90.5%), with Christians coming in second. Approximately 0.2% do not identify as religious. Catholics make up the largest percentage of Christians (4.2%), followed by Pentecostals and Charismatics (2.4%) and Protestants (2.4%). Traditionalists make up 0.3% of the population of the Metropolis. Most inhabitants are engaged in farming, crafts, and trading. Due to the wide nature of the Metropolis, the study was specifically conducted in 10 of the sub-communities within the metropolis, namely Worizeih, Fuo, Vittin, Dabokpa, Dohinaayili, Changli, Bilpiela, Nyohini, Tishigu, and Kukuo, after an excel

Randomization was done to select the area [17] [18]. The metropolis recorded an adolescent pregnancy rate of 9.04 and 9.00 in the years 2022 and 2023 respectively.

Study population

Parents or guardians of teenagers living in the Tamale Metropolis who satisfied the requirements for inclusion in the study's sample made up the study population.

Inclusion & exclusion criteria

This study was limited to parents and guardians of adolescents who consented to the study, understood and spoke Dagbani or English, and were mentally sound. The exclusion criteria included all parents who did not currently have adolescents as their children or under their care, as well as parents who met the criteria but decided not to participate in the study.

Sample size

The sample size was calculated using the Snedecor & Cochran (1989) formulae, which states that $N = Z^2 p (1-p) / (e^2)$, where N = sample size, $Z = 1.96$ (Value of 95% confidence interval),

P = Estimated proportion of population (i.e., 0.5 since the reasonable estimate of the key proportion to be studied is unknown), the margin of error (e) = 0.05. Then $q = 1-p = 1-0.5 = 0.5$. using the formula; $N = 1.96^2 \cdot 0.5 (1-0.5) / (0.05)^2$. Therefore, $N = 384$, with a 10% non-response rate calculated and added, giving $N = 424$.

Sampling technique

Consecutive sampling was employed to select participants for this study. Due to the sensitive nature of contraceptive use, the researchers recruited all participants who were easily accessible and ready to partake in the study. Additionally, given the sensitive nature of the topic, the participants decided the locations where they would be comfortable and willing to engage in discussions, facilitating data collection.

Data Collection Tool

A structured questionnaire was used to collect information about parents' support for the use of contraceptives by adolescents. The questionnaire was developed using the specific objectives of the study. The questionnaires were given to experts in the field of contraceptives to validate and make inputs before the data collection was done. The questionnaire underwent a pilot test to assess its clarity, directness, and importance to the research objectives. Feedback from the pilot study was used to refine the questionnaire before its administration to the study participants. The questionnaire had three sections: Section A gathered information about the participants' sociodemographic information such as age, educational level, sex, religion, occupation, marital status, spouse's/partner's educational level, and spouse's/partner's occupation; Section B assessed knowledge on benefits of using contraceptives. The participants were given a list of benefits of using contraceptive methods, such as "I believe it is important for adolescents to have access to contraceptives" and "Contraceptive methods can protect the health of family and society". They were asked to rate their agreement with these statements using the options "Agree", "Disagree", and "Neutral"; Section C assessed attitude towards and willingness of parents to support contraceptives by adolescents. In this section, the participants were asked to rate their agreement with statements about their attitude towards and willingness to support adolescents using contraceptives. Statements included "Contraception is important for adolescent health" and "I would recommend contraceptives to my child who is above 16 years". The participants rated their attitude using "Agree", "Disagree", and "Not Sure" and their willingness to support was measured using "Yes" or "No".

Data Collection Procedure

The ethics board of Kwame Nkrumah University of Science and Technology (KNUST) and the local government gave their approval before the information-gathering procedure started. Before starting the data collection, the researchers made sure to get consent from all participants, ensuring that they understood the study and agreed to participate voluntarily. The researchers chose participants using a method called consecutive sampling, where they selected individuals

Who were easy to reach and willing to talk about adolescent contraceptive use. During the data collection, steps were taken to protect the participants' privacy, and they were told that their responses would be kept confidential and anonymous. The researchers used three months to collect data from the respondents, thus from December 1, 2023, to February 28th, 2024.

Data management and analysis

Data were downloaded from the Kobotool box into SAS JMP Pro 17. The data were assessed for completeness and cleaned before being uploaded into SPSS version 27 for analysis. Descriptive data were summarized into distribution tables with corresponding frequencies and percentages using Microsoft Word. The association between readiness to advise family planning to children and sociodemographic characteristics was investigated using a binary logistic regression model. Findings were considered statistically significant at $P < 0.05$ and at a 95% confidence interval.

Ethical considerations

Data collection for this study was started after ethical clearance was obtained from the institutional review board (IRB) of the Kwame Nkrumah University of Science Technology ethical review board with reference number [CHRPE/AP/071/24]. Before data was gathered, the respondents were informed about the purpose of the study and they were made to consent. The data collection started on December 2023 and February 2024 in the Tamale metropolis. During data collection, efforts were made to ensure confidentiality and anonymity for respondents, which are essential for encouraging honest and accurate responses, particularly on sensitive topics such as sexual health and contraception.

Results

Sociodemographic characteristics

The results of the study are shown in Table 1 below. The respondents' average age was 34 years, with the majority (38.0%) falling within the 31 to 35 age range. In terms of educational status, 66.7% of respondents pursued tertiary education, 61.1% were male, and 49.5% identified as Muslims. Nearly 40.3% were self-employed, and a significant 79.5% were married. Concerning the educational level and occupation of respondents' spouses/partners, 46.7% had tertiary education, and 35.6% were self-employed, respectively (Table 1)

Knowledge of the Benefits of contraceptives

From Table 2, parental knowledge of the benefits of contraceptives was assessed and approximately 96.7% agreed that male condoms can guard against sexually transmitted diseases, and 62.1% disagreed with the notion that only females are in control for using contraceptive methods. Furthermore, 84.1% agreed that contraceptive methods can protect the health of both the family and society, while 64.7% agreed that the use of contraceptive methods in young people may increase the risk of infertility in the future. Additionally, 84.9% agreed that contraceptive pills do not guarantee 100% protection, 90.5% agreed that contraceptive use may reduce the fear of unplanned pregnancy and afford women the freedom to enjoy sexual relationships, and 91.6% agreed that contraceptive use allows women to pursue higher education by delaying pregnancy and gain some measure of economic security.

Attitude toward and willingness of Parents to Support Contraceptive use by adolescents

Approximately 83.9% of the respondents agreed that adolescents must have access to contraceptives, and 81.3% agreed that providing information about contraceptive methods to adolescents is the responsibility of parents. In contrast, 59.0% believed that contraceptive use before giving birth could cause infertility, and 62.1% believed that the use of family planning causes cancer, obesity, or uterus damage. A significant 81.0% agreed that adolescents should involve their parents before initiating contraceptive use, and 85.3% agreed that parents should have the right to know when their adolescent child is accessing contraceptive services. Additionally, 69.9% of respondents supported the distribution of contraceptives in schools, 88.4% stated that contraceptive use by adolescents helps reduce unwanted pregnancies and related complications, and about 51.9% indicated that, according to Islamic teachings, the use of contraceptive methods is considered a permissible action, while 60.7% stated that, conferring to Christian teachings, the

Use of contraceptive methods is considered a permissible action. Lastly, the majority of respondents (68.2%) reported having ever patronized family planning services and 61.1% will recommend family planning to their children aged 16 and above (Table 3).

Table 1: Sociodemographic characteristics of respondents (N=424)

Variable	Frequency	Percentage
Age in years	(34.0 ± 7.6)	
25 or younger	62	14.6
26-30	67	15.8
31-35	161	38
36-40	58	13.7
41 and above	76	17.9
Education level		
Primary	20	4.7
JHS	34	8
SHS	87	20.5
Tertiary	283	66.7
Sex		
Female	165	38.9
Male	259	61.1
Religion		
African traditional religion	26	6.1
Christian	188	44.3
Muslim	210	49.5
Occupation		
Unemployed	94	22.2
Self employed	171	40.3
Government employee	159	37.5
Marital status		
Married	337	79.5
Never married	58	13.7
Single Parent	29	6.8
Spouse's/partner's education level		
No education	110	25.9
Primary	9	2.1
JHS	33	7.8
SHS	74	17.5
Tertiary	198	46.7
Spouse's/partner's occupation		
Unemployed	136	32.1
Self-employed	151	35.6
Government employee	137	32.3

Source: Field data (2024)

Factors associated with parents' willingness to recommend contraceptive methods to children

The multivariable binary logistic regression analysis revealed significant associations between parents' willingness to recommend family planning to children above 16 years and educational level, occupation, spouse's/partner's education level, having heard of contraceptive methods, and having ever utilized family planning services. Respondents with tertiary education levels were 3.6 times more likely to recommend family planning to children above 16 years [95% CI: 1.04-12.58, p=0.042]. Respondents whose spouses/partners had primary education were 14.5 times more likely to recommend family planning to children above 16 years [95% CI: 1.80-116.89], and those whose spouses/partners had senior secondary education were 3.9 times more likely to recommend

Family planning to children above 16 years [95% CI: 1.11-13.77, p=0.034]. Moreover, respondents who had heard of contraceptive methods before were 4.1 times more likely to recommend family planning to children above 16 years [95% CI: 1.24-13.72, p=0.020], and respondents who had ever patronized family planning services were 4.0 times more likely to recommend family planning to children above 16 years [95% CI: 2.26-7.22, p <0.001]. On the other hand, self-employed respondents were 0.3 times less likely to recommend family planning to children above 16 years [95% CI: 0.14-0.79, p=0.012] (Table 4).

Table 2: Knowledge of the Benefits of contraceptives among the respondents (N=424)

Variable	Agree		Disagree		Neutral	
	N	%	N	%	N	%
Male condoms can protect against sexually transmitted diseases	378	96.7	13	3.3	0	0
Only women are responsible to use contraceptive method	148	37.9	243	62.1	0	0
Contraceptive methods bring more damage than benefit to health	233	59.6	154	39.4	4	1
Contraceptive methods can protect the health of family and society	329	84.1	62	15.9	0	0
The use of contraceptive methods in young people will increase the risk of infertility in the future	253	64.7	130	33.2	8	2
Contraceptive pills do not guarantee 100% protection	332	84.9	52	13.3	7	1.8
Contraceptives use may reduce fear of unplanned pregnancy and afford woman the freedom to enjoy the sexual relationship	354	90.5	37	9.5	0	0
Contraceptives use allow women to pursue higher education by delaying pregnancy and gain some measure of economic security	358	91.6	33	8.4	0	0

Source: Field data (2024)

Discussion

This study aimed to explore parental support in the uptake of contraception among adolescents within the Tamale Metropolis. Employing the cross-sectional method, the study found high patronage of contraceptive services among the parents/guardians, with the majority of them agreeing that it is important for adolescents to have access to contraceptives and also being willing to recommend contraceptives to their children. Consequently, they are willing to discuss contraceptives with their children.

In general, parental knowledge of the benefits of contraception was high, as many of them knew, for instance, that condoms can protect against STIs and that contraceptive use reduces the fear of unprotected pregnancies and can protect the health of the family and society. Understanding that contraceptives do not guarantee 100% protection could guide them to have backup anytime they intend to use any method. Having good knowledge about contraception could facilitate decision-making, access, and utilization. The high knowledge of the benefits of contraceptives for adolescents in this study is supported by a study conducted by [19]. "Regular contraceptive and implant usage has been shown to lower teen pregnancies and the spread of sexually transmitted infections (STIs) [15]."

Although the majority of them were males, they disagreed that only women were responsible for using contraceptive methods. This position is very favorable to contraceptive access and utilization, as they (the males) could use the services and will also support the women to access and use them.

A good number of parents/guardians also think that contraceptive use may increase the risk of infertility in the future. This perspective may prevent them from discussing the subject with their children, and this could negatively affect their support for adolescents in using contraceptives [20]. This situation could lead to more adverse outcomes since the adolescents are already sexually active.

The study revealed that parents' contraceptive use allows women to pursue higher education by delaying pregnancy and gaining some measure of economic security. High school dropout rates due to teen pregnancies, as a result of low utilization of contraceptive methods, have been reported [21].

The benefits of contraceptives used by adolescents, as indicated by the parents, are supported by a study conducted by [22], which shows that "teen mothers are less likely to graduate from high

Table 3: Attitude toward and willingness to support contraceptive use by adolescents among respondents (N=424)

Variable	Frequency	Percentage
Cultural Practices		
I believe it is important for adolescents to have access to contraceptives		
Agree	354	83.9
Disagree	68	16.1
I am comfortable discussing contraceptive methods with my adolescent child		
Agree	285	67.5
Disagree	135	32
Not Sure	2	0.5
I believe it is the responsibility of parents to provide information about contraceptive methods to their adolescent child		
Agree	343	81.3
Disagree	78	18.5
Not Sure	1	0.2
Contraceptives are for married women and old people		
Agree	186	44.1
Disagree	232	55
Not Sure	4	0.9
Contraceptives before giving birth cause infertility		
Agree	249	59
Disagree	167	39.6
Not Sure	6	1.4
People considers you as a prostitute		
Agree	269	63.7
Disagree	150	35.5
Not Sure	3	0.7
Use of FP causes cancer/obesity/uterus damage		
Agree	262	62.1
Disagree	151	35.8
Not Sure	9	2.1
Adolescents should involve their parents before initiating contraceptive use		
Agree	342	81
Disagree	76	18
Not Sure	4	0.9
Parents should have the right to know when their adolescent child is accessing contraceptive services		
Agree	360	85.3
Disagree	56	13.3
Not Sure	6	1.4
Social and Religious		
I support the distribution of contraceptives in schools		
Agree	295	69.9
Disagree	120	28.4
Not Sure	7	1.7
Contraceptive use by adolescents helps reduce unwanted pregnancies and related complications.		
Agree	373	88.4
Disagree	49	11.6
Contraceptive use by adolescents promotes responsible sexual behavior.		
Agree	325	77
Disagree	93	22
Not Sure	4	0.9
According to Islamic teaching, the use of contraceptive methods is considered a permissible action		
Agree	219	51.9

Disagree	188	44.5
Not Sure	15	3.6
According to Christian teaching, the use of contraceptive methods is considered a permissible action		
Agree	256	60.7
Disagree	149	35.3
Utilization and Willingness		
Had ever patronized family planning services		
Yes	288	68.2
No	134	31.8
I would recommend contraceptives to my child who is above 16 years		
No	164	38.9
Yes	258	61.1

Source: Field data (2024)

School and more likely than their peers who delay childbearing to live in poverty and to rely on welfare.”

The findings of this study showed a general positive attitude toward supporting adolescents to use contraceptives. Many of the parents/guardians indicated they would recommend contraceptives to their children and encourage them to use them. They also expressed their willingness to provide information about contraceptive methods to adolescents and support the distribution of contraceptives. Knowing that contraceptive use by adolescents promotes responsible sexual behavior and helps reduce unwanted pregnancies and related complications is very welcoming. This support tends to boost contraceptive use by adolescents. This position expressed by the parents reduces the fear in adolescents about the perceived rebuking by parents when they find them discussing or using contraceptives. More importantly, the various religious sects of the parents/guardians also support the use of contraceptives. This position, when taken up with religious leaders, can lead to mounting education on contraceptive use in churches and mosques.

The willingness of parents/guardians to recommend contraceptives to their children aged 16 and above is supported by the results from other research where 31.7% of the subjects will also encourage, support, and approve the use of contraceptives by their adolescent children [15][23].

Also, in this study, parents/guardians favored discussing contraceptive methods with their adolescent children, providing information, and referring them to seek contraceptive services. These findings, however, contradict the results of a study conducted by [15], who claimed that most parents refrain from talking to their kids about sexual things because they are worried about how society will view them and worry it will stimulate sexual interest.

The study also revealed that 59.0% believed that contraceptive use before giving birth could cause infertility. This is a misconception because studies have found no association between contraceptive use and infertility [24]. Nevertheless, the finding calls the attention of authorities to intensify education on misconceptions about contraception, especially those with prolonged use of oral contraceptives. In this current study, the majority of parents/guardians thought that people consider contraceptive users as prostitutes. Such beliefs can create barriers to accessing contraception and family planning services, perpetuating judgment and discrimination against those who choose to use contraceptives.

Our study also found that about 62.1% believed that the use of contraceptives causes cancer, obesity, or uterus damage. The National Cancer Institute for Use of Contraceptives (2018) holds that oral contraceptives have been associated with a slightly increased danger of breast cancer and cervix cancer. The lengthier one uses birth control pills, the higher the risk of both cancers tends to be. However, the risk usually decreases over time after stopping the use of the pills. Oral contraceptives also decrease the risk of ovarian cancer and womb cancer (National Cancer Institute, 2018). Their assertion is therefore in partial agreement with our study.

A significant 81.0% agreed that adolescents should involve their parents before initiating contraceptive use, and 85.3% agreed that parents should have the right to know when their adolescent child is accessing contraceptive services. This result is not in support of [25] that found out that parents were unable to bring up and clearly have conversations with their teenagers about sexual and reproductive health.

Table 4: Factors associated with parents' willingness to recommend contraceptive methods to children

Variable	Would recommend family planning to child who is above 16 years		Total	AOR [95% CI]	P value
	No	Yes			
Age in years					
25 or younger	27 (43.5)	35 (56.5)	62	Reference	
26-30	38 (56.7)	29 (43.3)	67	0.7 [0.23-1.92]	0.459
31-35	49 (30.8)	110 (69.2)	159	2.2 [0.78-6.43]	0.13
36-40	21 (36.2)	37 (63.8)	58	1.5 [0.48-4.76]	0.471
41 and above	29 (38.2)	47 (61.8)	76	1.1 [0.36-3.48]	0.823
Education level					
Primary	14 (70.0)	6 (30.0)	20	Reference	
JHS	18 (52.9)	16 (47.1)	34	1.4 [0.36-5.96]	0.579
SHS	47 (54.0)	40 (46.0)	87	1.2 [0.34-4.17]	0.772
Tertiary	85 (30.2)	196 (69.8)	281	3.6 [1.04-12.58]	0.042*
Sex					
Female	69 (41.8)	96 (58.2)	165	Reference	
Male	95 (37.0)	162 (63.0)	257	1.2 [0.70-1.93]	0.537
Religion					
African traditional religion	13 (50.0)	13 (50.0)	26	Reference	
Christian	72 (38.7)	114 (61.3)	186	1.2 [0.43-3.49]	0.687
Muslim	79 (37.6)	131 (62.4)	210	1.3 [0.48-3.71]	0.562
Occupation					
Unemployed	30 (31.9)	64 (68.1)	94	Reference	
Self-employed	91 (53.8)	78 (46.2)	169	0.3 [0.14-0.79]	0.012*
Government employee	43 (27.0)	116 (73.0)	159	0.6 [0.24-1.34]	0.202
Marital status					
Never married	24 (41.4)	34 (58.6)	58	Reference	
Single Parent	14 (48.3)	15 (51.7)	29	1.1 [0.34-3.44]	0.884
Married	126 (37.6)	209 (62.4)	335	0.3 [0.09-1.63]	0.195
Spouse's/partner's education level					
No education	54 (49.1)	56 (50.9)	110	Reference	
Primary	4 (44.4)	5 (55.6)	9	14.5 [1.80-116.89]	0.011*
JHS	16 (48.5)	17 (51.5)	33	3.5 [0.87-13.71]	0.077
SHS	35 (47.3)	39 (52.7)	74	3.9 [1.11-13.77]	0.034*
Tertiary	55 (28.1)	141 (71.9)	196	2.5 [0.76-8.08]	0.131
Spouse's/partner's occupation					
Unemployed	52 (38.2)	84 (61.8)	136	Reference	
Self employed	76 (50.3)	75 (49.7)	151	0.8 [0.31-1.82]	0.527
Government employee	36 (26.7)	99 (73.3)	135	1.3 [0.53-3.15]	0.563
Had ever heard of contraceptive method					
No	26 (83.9)	5 (16.1)	31	Reference	
Yes	138 (35.3)	253 (64.7)	391	4.1 [1.24-13.72]	0.020*
Had ever patronized family planning services					
No	85 (63.4)	49 (36.6)	134		
Yes	79 (27.4)	209 (72.6)	288	4.0 [2.26-7.22]	<0.001

*Statistically significant at p<0.005, AOR, Adjusted Odds Ratio, CI, Confidence Interval

Additionally, 69.9% of respondents supported the distribution of contraceptives in schools. According to [26] there is support for the distribution of condoms in schools as a measure

To protect young people from negative outcomes of unprotected sex, such as sexually transmitted diseases (STDs), HIV/AIDS, and unintended pregnancies. Their research indicates that high school condom availability programs (CAPs) can boost condom use among high-risk and sexually active students, but they do not enhance teen sexual activity. Furthermore, this study has shown that 88.4% stated that contraceptive use by adolescents helps reduce unwanted pregnancies and related complications. Lack of motivation to use contraception, lack of confidence and ability to seek or negotiate the use of contraception, and limited access to quality service provision and contraceptive services are some of the obstacles that adolescents in low- and middle-income countries (LMIC) experience when trying to obtain and use contraception. This is the assertion of [27].

Additionally, this study revealed that 77.0% said that contraceptive use by adolescents promotes responsible sexual behavior. This is in agreement with [26], who equally showed in their study that contraceptive use stimulates good sexual behavior.

Both Islamic and Christian religions consider the use of contraceptive methods a permissible action according to this study. This position would help boost access and utilization of contraceptives because the findings by [28] suggested that people would patronize contraceptive services when it is permissible by religion since religious beliefs were barriers to the provision and use of FP/C services.

This study showed that the majority of parents/guardians have reported having ever patronized contraceptive services. They are also willing and ready to support their adolescent children to access and use contraceptives.

The findings of this study revealed that education level ($p < 0.001$) is significantly associated with parental willingness for their adolescents' contraceptive uptake, and this is in agreement with the findings of [15], which also identified a significant association between these two variables ($P < 0.001$). Considering occupation ($p < 0.001$), the same study by [15] highlighted that while occupation was not specifically mentioned as a significant factor, education level, marital status, and religion were linked to parental attitudes toward contraceptives for unmarried adolescents. Spouse's/partner's education level ($p = 0.001$), spouse's/partner's occupation ($p = 0.001$), and having ever utilized family planning services ($p < 0.001$) were significantly associated with parents' willingness to recommend family planning to children above 16 years. Specifically, respondents aged 31 to 35 years, with tertiary education, employed in government positions, having spouses or partners with tertiary education and government occupations, having heard of contraceptive methods, and having ever utilized contraceptive services were more likely to recommend contraceptives to children above 16 years compared to their counterparts. These suggest that, for parents to willingly recommend contraceptives to children above sixteen (16) years, higher age (31 to 35) of parents, tertiary education, employment, and experience of contraceptive methods and services are very influential.

Conclusion

The study revealed that most parents showed a good awareness of the benefits of contraception, acknowledging its role in avoiding STIs and unintended pregnancies. Many parents said they would be prepared to openly discuss contraceptive techniques and recommend contraceptives to their teenage children. However, a sizable portion of parents had false beliefs about birth control, which might prevent them from having candid conversations with their kids. Parental support for teenage contraceptive use is positively correlated with higher educational attainment and certain vocations. Lastly, the majority of parents think that teens should involve themselves in the process of obtaining contraceptive services, suggesting a possible direction for the creation of initiatives that promote parental participation in sexual health education. Policymakers ought to give top priority to educational initiatives that dispel these myths and create a welcoming atmosphere for teenagers looking for contraceptive options. Working with religious leaders could improve community acceptability of family planning programs, as both Islam and Christianity typically approve the use of contraceptives.

The distribution of contraceptives in schools is widely supported and may be a useful tactic to lower teenage STIs and unwanted pregnancies. Comprehensive contraceptive education programs should

Target parents and adolescents to enhance awareness and dispel misconceptions and cultural or religious myths about contraceptives. Making contraceptives accessible and affordable to youth is crucial, achieved through organizing youth-friendly services to educate them on accessing and using contraceptive methods. Encouraging parents to engage in open discussions with adolescents about sexual and reproductive health, including contraceptive use, is essential for promoting informed decision-making and safe practices.

Abbreviations

PHC: Population and Housing Census

GHS: Ghana Health Service

KNUST: Kwame Nkrumah University of Science and Technology

STDs: Sexually transmitted diseases

Supporting information: None

Ethical considerations: Data collection for this study was started after ethical clearance was obtained from the institutional review board (IRB) of the KNUST ethical review board with reference number [CHRPE/AP/071/24]. Before data was gathered, the respondents were informed about the purpose of the study and they were made to consent. The data collection started on December 2023 and February 2024 in the Tamale metropolis. During data collection, efforts were made to ensure confidentiality and anonymity for respondents, which are essential for encouraging honest and accurate responses, particularly on sensitive topics such as sexual health and contraception.

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