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ORIGINAL ARTICLE

Knowledge, Utilization and Challenges of Contraceptives among Adolescents in Tamale Metropolis

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Reproductive health issues are central to the Sustainable Development Goal 3. Globally, governments are committed to the reduction of adolescent birth rate, in which access to modern contraceptives is pivotal. This study examined the Knowledge, Utilization and Challenges of Contraceptives among Adolescents in Tamale Metropolis. The study adopted a cross-sectional study approach, in which 400 participants were selected through simple random sampling. Semi-structured questionnaire and focus group discussion guides were the main tools used to gather data on the knowledge of contraceptive types as well as the challenges and utilization of contraceptives. Six focus groups were conducted with six participants in each of the groups. In this study, only 258(67%) of the participants knew of at least one method of family planning. The study further revealed that knowledge level of participants on the side effects of contraceptives was low. Myths surrounding contraceptives use and practice was very common among the study subjects. The most frequent challenges faced by the participants in their quest to access contraceptives were inadequate education on contraceptives, and some traditional and religious beliefs, representing 49.7% and 34.7%, respectively. Respondents aged 16-19 years were more associated with the use of oral contraceptive pills, injectable, implant, intrauterine contraceptive, withdrawal, and condom thus, 144(83.2), 156(91.2), 118(95.1), 23(100.0), 61(100.0), and 243 (81.3), respectively. In this study, the main source of information among the respondents was the internet (96.3%). Stigmatization, the feeling of shyness and some traditional beliefs are major challenges to the utilization of contraceptives among the study participants. Therefore, health authorities in the region ought to intensify their reproductive health education strategies to minimize stigmatization among adolescents.

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INTRODUCTION

Low uptake of contraceptives and high-unmet needs for contraceptives remains a vital public health concern in developing countries, including rural Ghana. Unsafe sexual intercourse among the youth is widespread globally, including Ghana (Boamah et al., 2014; Gbagbo, 2020; Kann et al., 2018). Consequently, reproductive health issues are an integral part of the Sustainable Development Goal 3 (IAEG-SDGs, 2016). Hence, governments worldwide have committed to the reduction of adolescent birth rate (IAEG-SDGs, 2016). Therefore, access by all sexually active persons to modern contraceptives is a global priority (IAEG-SDGs, 2016). In Southern Ghana, two previous studies revealed that contraceptive use among adolescents was very low (Boamah et al., 2014; Karim et al., 2003). In one of these studies, it was observed that among the sexually active adolescents, 30.0% of them had experienced pregnancy and of all those who experienced pregnancy, 34.0% of such pregnancies resulted in abortions (Boamah et al., 2014). Apart from abortions, there is evidence that unprotected sexual intercourse increases the risk of infertility among adolescent females (Todd & Black, 2020).

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The use of contraceptives is influenced by numerous factors, which include knowledge of contraceptive methods, inadequate access to contraceptive options as well as socio-demographic characteristics of both adolescent females and their partners (Mehra et al., 2012). In Ghana, findings from previous studies suggest that early debut of sexual activities, poor knowledge of contraceptives and low utilization of modern contraceptives are key challenges confronting national adolescent reproductive health initiatives (Awusabo-Asare et al., 2006; Boamah et al., 2014; Gbagbo, 2020; Rani & Lule, 2004).

Although thes studies have investigated the level of knowledge and usage of various contraceptive methods among adolescents in Ghana, the studies were concentrated in the Southern part of the country. However, due to socio-cultural differences that may exist among adolescents in the two distinct geographical zones in the country, there is the need to assess the level of knowledge, utilization, and barriers to contraceptive utilization among adolescents in the northern part of the country. This may be useful in reproductive health policy formulation in the region. Thus, the objective of this study was to assess the knowledge, challenges, and utilization of contraceptives among adolescents in the Tamale Metropolis, Ghana.

Study Setting and Research Methodology

The study was conducted in the Tamale metropolis. Five communities were selected for the study. All the communities selected were in the Tamale South- Sub metropolis. The areas were selected for the study due to their rural nature and the perception that contraceptive education is very

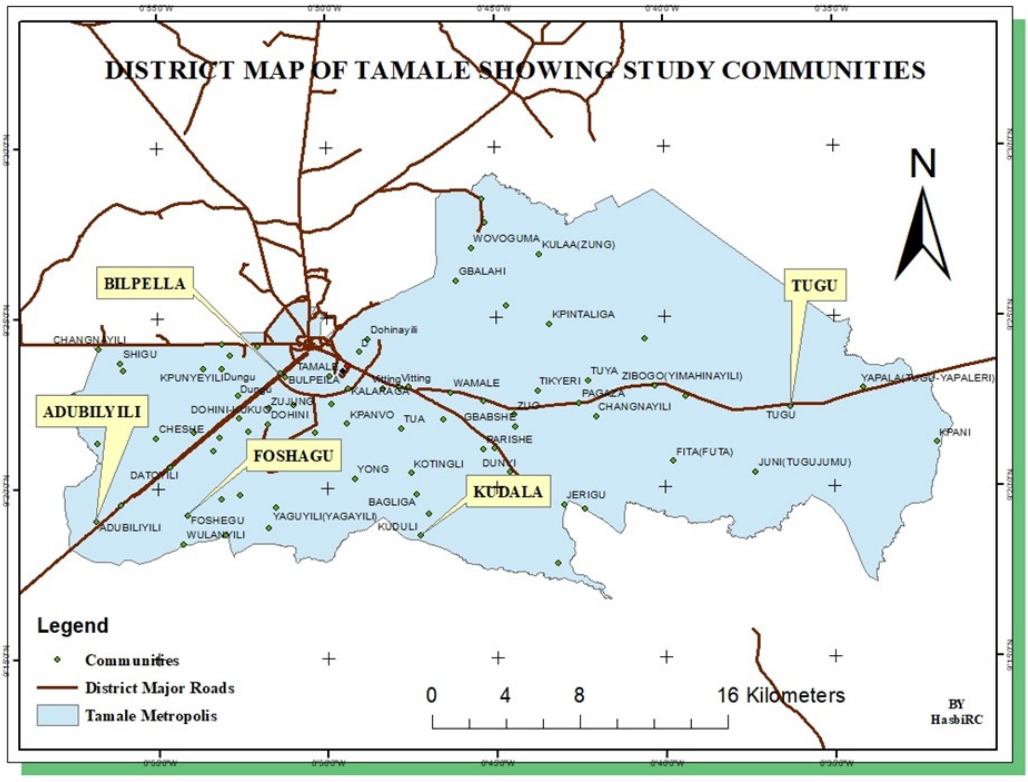

Fig 1. Map of the Tamale Metropolis showing the Study Communities
Source: Geography department of University of Ghana, Legon

low in rural communities in the developing nations. The selected communities were Buipella, Adubilyili, Tugu, Kudula and Foshagu.

MATERRIALS AND METHODS

The study adopted a descriptive exploratory cross-sectional design using a mixed method. The study was conducted from March to October 2020. A total of 400 participants were randomly selected from households with more than two adolescents. Focus group guide and semi-structured questionnaires were the main tools employed for the study. The focus group discussion was conducted in the five selected communities all in the Tamale South Sub Metro. One focus group discussion was organized in each of the selected communities for the study. Using the focus group guide that was designed in line with the study objectives, the research team visited the selected communities and identified the potential participants and recruited them for the study. The focus group discussion guides were designed and developed by the research team in English language and then translated into the local language (Dagbani) after pre-testing to integrate and accommodate the cultural dynamics of the people. The focus group discussion was conducted taking into account the dynamics of the population. Adolescent females with same characteristics such as age and marital status were grouped together. Besides, the participant's level of education was taken into consideration during the grouping. The questionnaires were used to gather quantitative data. The themes in the questionnaire were designed in line with the study aims and objectives.

An audio recording of the Focus Group discussions was transcribed word to word/verbatim and translated from Dagbani language into English by the researchers who were fluent in both languages. These transcripts were analyzed to support the quantitative data. Using the thematic analysis approach, the researchers read and reread all of the transcripts several times to be familiar with the data and to identify predetermined and emerging themes from the data. Together with the manual analysis technique adopted in the initial stage of the data analysis, the qualitative data was also coded and thematically analyzed using QSR 8 software for Windows (QSR International Pty Ltd, 2008). The codes were further refined and categorized to develop additional codes for a detailed analysis. The quantitative data was entered into Statistical Package for Social Science (SPSS) version 25.0 (IBM, 2017). The analysis was conducted using descriptive statistics and the results were displayed using graphs and tables. The protocol of the study was given clearance by the Department of Community Health and Family Medicine, and the Graduate School, of the University for Development Studies. Further approval of the study was given by, the Tamale Metropolitan Health Directorate. The study was conducted taking into accounts all the needed ethical consideration including obtaining verbal informed consent from all the participants**.**

RESULTS

The socio-demographic characteristics of participants are presented in **Table 1.** In **Table,1**, frequencies of responses which do not add up to 400 suggest the occurrence of non-response variables. From the Table, majority (78.6%) of the respondents were within 16-19 years. The Muslim participants were more than half (87.3%) of all the participants. For the parental level of education, majority (67.4%) of mothers had no education. For their fathers, 42.7% had no education. In addition, majority (94.0%) of the respondents were single and only 5.7%. Moreover, majority (90.5%) of participants were unemployed.
From Figure 2, 258 (67%) of the respondents have knowledge of at least one form of contraceptive method. However, 128 (33%) lacked knowledge of family planning options.

Table 1: Socio-Demographic Characteristics of Respondents

Variable	Frequency	Percentage
Age (years)		
10-12	14	3.9
13-15	67	17.3
16-19	303	78.6
Religion of Respondent		
Christian	49	12.7
Muslim	337	87.3
Tribe of Respondent		
Bimoba	13	3.4
Dagomba	287	74.4
Hausa	14	3.6
Others	72	18.1
Respondents Education		
No Education	32	8.3
Primary	22	5.7
Junior High School	81	21
Senior High School	211	54.7
Tertiary	40	10.2
Mother Education		
No Education	260	67.4
Primary	10	2.6
Junior High School	14	3.6
Senior High School	30	7.8
Technical/ Vocational	39	10.1
Tertiary	33	8.5
Father's Education		
No Education	165	42.7
Primary	2	0.5
Junior High School	6	1.6
Senior High School	30	7.8
Technical/ Vocational	48	12.4
Tertiary	135	35.0
Marital Status		
Single	363	94.0
Married	22	5.7
Divorced	1	0.3
Occupation		
Employed	37	9.6
Not Employed	349	90.4

The cross-tabulation of contraceptive utilization by age of the respondents is presented in **Table 2.** In the Table, the responses are not mutually exclusive thus, a participant had the chance of selecting multiple answers. Therefore, the totals of the frequencies for the responses are greater than the sample size of 400. The results suggest that the age of the respondent may have a relationship with the type of contraceptive used. For example, compared with respondents aged 10-15, those within the ages of 16-19 years were more associated with oral contraceptive pills, injectable, implant, intrauterine contraceptive, withdrawal, and male condom thus, 144(83.2), 156(91.2), 118 (95.1), 23(100.0), 61(100.0), and 243 (81.3), respectively.

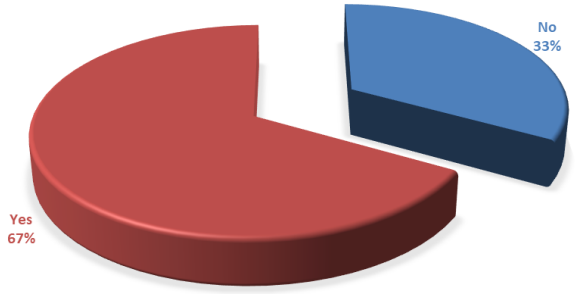

Figure 2: Knowledge Regarding Family Planning Services

Figure 2 is an illustration of the sources of family planning education. The results showed that the respondents got information on family planning methods from multiple sources: the television commercials, radio advertisements, community durbar, colleges, friends, internet source, parents and health professionals. However, the main source of information among the respondents was the internet (96.3%). Nonetheless, in the focus groups, some of the respondents never used the internet as a source of information on contraceptives, as quoted below.

I heard the family planning thing from the radio and television advertisement and also from friends" ***[17-year -old adolescent IDI]***

For me I learnt it at school and from my friends ***[16-year-old adolescent FGD].***

The challenges faced by adolescents towards family planning services are presented in

Table 2: Cross-Tabulation of Contraceptive Utilization by age of Adolescents

Contraceptive	Age 10-12	Age 13-15	Age 16-19	Total
Oral Contraceptive pills	4 (2.3)	25 (14.5)	144 (83.2)	173 (100.0)
Injectable	1 (0.5)	14 (8.2)	156 (91.2)	171 (100.0)
Implant	0 (0.0)	6 (4.8)	118 (95.1)	124 (100.0)
Intrauterine contraceptive	0 (0.0)	0 (0.0)	23 (100.0)	23 (100.0)
Withdrawal	0 (0.0)	0 (0.0)	61 (100.0)	61 (100.0)
Male condom	7 (2.3)	49 (16.4)	243 (81.3)	299 (100.0)

Data distributed as frequency (%)

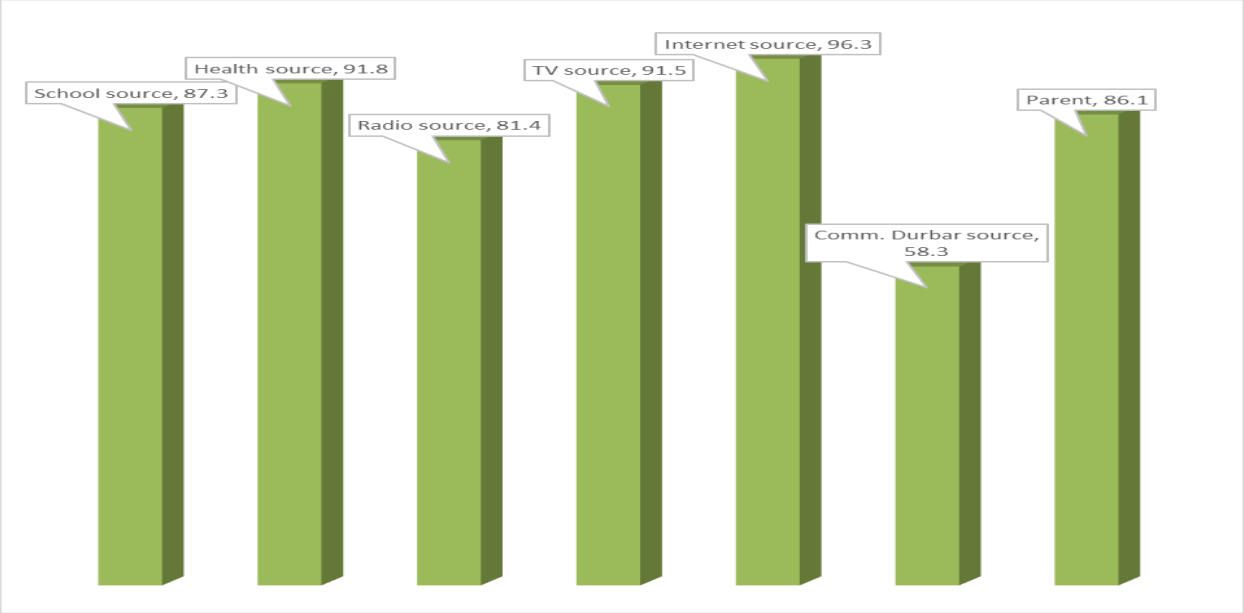

Figure 2: Sources of Family Planning Education

Table 3: Challenges concerning adolescent towards Family Planning (multiple responses)

Variables	Frequency	Percentage
Inadequate education on contracep-tives	192	49.7
Attitudes of service providers	39	10.1
Inadequate contraceptives	24	6.2
Religion	134	25.1
Traditional belief	97	34.7
Financial challenges	103	26.7
Others	28	7.3

Field survey,2020.

Table 3. In the Table, the responses are not mutually exclusive thus, a participant had the chance of selecting multiple answers. Therefore, the totals of the frequencies for the responses are greater than the sample size of 400. From the analysis, unfavorable attitudes of service providers, financial challenges, religious problems, and traditional beliefs were challenges faced by most of the respondents in their utilization of contraceptives. The most frequent challenges faced by the participants were inadequate education on contraceptives and traditional beliefs, representing 49.7% and 34.7%, respectively. In the focus group discussions, it was evident that adolescents shy to access contraceptives because they feared that contraceptive providers and adults might be asking them of their ages and the reasons for the acquisition of the contraceptives or brand them as bad girls. 14-year-old and 15-year-old participants shared their thoughts as quoted below. *We are under-aged and normally feel shy because we think they will be asking us about our age, and shyness is a major hindrance.* **[14 years old *female adolescent during IDI*]**

*Also, as adolescents, we normally feel shy buying condoms at the pharmacy, because when the older people are around and see you, they will either insult you or stigmatized you by saying you are a bad girl and this makes us feel shy and afraid [**15-years-old female adolescent FGD].***

In the study, majority of young adolescents, both males and females do not use contraceptives due to various social stigmas in the rural communities in northern Ghana. Social pressure to bear more children is said to be one of the challenges towards contraceptives as parents are respected in the various communities. A male from Bamvim reported, *"People in this community feel very shy telling anybody at home or anywhere else that he is using contraceptives. It is even more difficult when an individual wants to but any form of contraceptives at the chemical shop. Those who are found with condom people either laugh at you or scorn you."* A young girl from Yon Dakpemyili reported as follow: *people in this community cherish more children and they always say if there are more children they will prove helpful in their farms and in the future; and they will bring honor to the family name."* (FGD)

"We don't use contraceptive because of our religion; The Prophet Muhammed (PBUH) had said that one should marry a woman whose family has more children." Similarly, a young girl from Buipela described it thus: *"The religion prohibits it because the prophet said that the more children a woman bears the more my Ummah (Muslim brotherhood) will grow".(FGD)*

DISCUSSION

In this study, the knowledge, challenges and utilization of family planning services were examined amongs adolescents. The study revealed that the majority (67%) of the respondents has ever heard of at least one family planning method. This finding is consistent with a study by Onasoga et al. (2016) in Nigeria. In the study, the authors found that three-fourth (75%) of the respondents knew about family planning in Nigeria. The present findings showed that the various methods used to prevent a pregnancy among the participants were the oral contraceptive pills, injectable, implant, intrauterine contraceptive, withdrawal, condom. However, the male condom was the leading method of contraception observed in the study. Similarly, in the Southern part of Ghana, similar findings were reported from two cross-sectional studies (Agyemang et al., 2019; Boamah et al., 2014). This shows that most of the females, they depend on their male partners to use the condom as a means of pregnancy prevention. Hence, reproductive health strategies towards the promotion of family planning service utilization ought to target both adolescent males and females. The result of the study revealed that the leading source of family planning education for adolescents was the internet. This may imply that most adolescents learn about family planning on the internet rather than the health centers. In Ghana and Burkina Faso, previous studies revealed that the social media was the common source of information on contraceptives (Agyemang et al., 2019; Bankole et al., 2007). Again, Baheiraei et al. (Baheiraei et al., 2014) revealed that 37.9% of the respondents in their study preferred the internet as the source of information to educate themselves on sexual and reproductive health matters. However, there are concerns that the social media makes adolescents vulnerable to the consumption of misinformation (Kyilleh et al., 2018). In this study, nearly 50% of the participants considered inadequate education on family planning as a challenge to contraceptive utilization. In line with this, a previous observational study conducted among adolescents showed that 25% lacked knowledge of contraceptives (Onasoga, 2016). The lack of knowledge of contraceptive services has been previously reported in Ghana and other Sub-Saharan African countries (Bankole et al., 2007). The consequences of a lack of knowledge of contraceptives are the engagement in unprotected sexual intercourse by the youth and its resultant health and economic impact. The present study also showed that religion and cultural beliefs are challenges to the utilization of family planning services. These findings are corroborated by several other studies (Agyemang et al., 2019; Marrone et al., 2014; Odimegwu, 2005; Sahu & Hutter, 2012). Further, in the present study, the fear of being branded as bad girls was a challenge among the participants in the acquisition of contraceptive methods. In line with this, an earlier study reported similar concerns among adolescents in the country

(Gbagbo, 2020). The challenges that are faced by adolescents in the utilization of contraceptives ought to be a national concern to avoid preventable deaths that linked to abortions (Collumbien et al., 2004).

CONCLUSION

The study revealed that 128 (33%) lack information on family planning services. Also, access to family planning services is challenged by their fear of being branded bad girls, traditional beliefs, and shyness. The study gives an insight into the local nexus to contraceptives attitudes, knowledge and utilization among adolescents in rural communities in northern Ghana, and highlights the need for contraceptives use most especially the long-acting and reversible ones. Addressing challenges such as availability, affordability and stigmatization in contraceptives use is important for the effective and efficient use of contraceptives in ensuring the achievement of Sustainable Development Goal 3 (SDG3). The study further identified a strong need for support and empowerment of adolescents to feel free and talk freely about their reproductive needs. Also, the involvement of opinion leader such as the traditional rulers, youth chiefs, and religious leaders would help in the dissemination of information on the need for contraceptives utilization. The present findings may be useful to health authorities in the Tamale Metropolis in the formulation of reproductive health promotion campaigns. The study therefore, recommends that the Ghana Health Service in collaboration with her partners should try to build more adolescents canners in rural communities to enable the adolescents to have access to their reproductive health education and needs. Also, health authorities in the Tamale Metropolis ought to intensify campaigns against stigmatization among adolescents in their quest to access and use modern contraceptives.

Competing Interests

The authors declare that they have no competing interest.

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