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Chapter

Adolescents, Social Media and Access to Reproductive Health Information and Services in Ghana: Prospects and Challenges

Rahma Salifu and Abdulai Abubakari

Abstract

Social media is one of the variables affecting sexual behavior among teenagers in today's society. This study was conducted in Tamale, Ghana, to examine adolescents' application of social media to access and use reproductive health services. The study involved 342 adolescents randomly selected from multicultural and diverse backgrounds of students drawn from four Senior High Schools in the Tamale metropolis of the Northern Region. Data was collected using semi-structured questionnaires and interview guides. The quantitative data were analyzed using STATA 16.0, chi-square test of association, and binary logistic regression at a 5% significance level. The study found that 45.4% of adolescents accessed reproductive health (RH) information through social media. The study showed that there was a significant association between using a mobile phone to access RH information and romantic relationship ($p < 0.001$), awareness of reproductive health ($p < 0.040$), respondents' place of residence ($p < 0.040$) and occupation of guardian ($p < 0.040$), mobile phone ownership ($p < 0.004$), social media use ($p < 0.001$), means of accessing RH using a mobile phone ($p < 0.02$) and whether their problem was solved ($p < 0.001$). The study concludes that, despite the high utilization of social media and awareness of reproductive health services, less than half (45.4%) of the adolescents use social media by adolescents to access adolescent reproductive health services in the Tamale metropolis.

Keywords: adolescents, social media, reproductive health service, knowledge, sexually transmitted infections

1. Introduction

The new digital media field has changed how young people obtain information and interact with one another [1]. Computer-mediated systems which allow individuals and communities to connect, interact, link and share content are known as "social media" Field [2]. Social media initiatives can instantly reach bigger followers via recognizable venues, using social networks' credibility and impact [3]. Social media platforms are constantly changing [4], as a result, young people

are increasingly communicating online instead of in person, and smartphones can obstruct face-to-face conversations adolescent females are avid users of social media as compared to boys, are more vulnerable to cyberbullying, and are more likely to suffer from mental health issues [5].

Approximately half the global population possesses a mobile phone, and 42% access the Internet Okeleke [6]. Peer pressure and unpleasant behaviors, such as cyberbullying, internet fraud, pornography, computer or cell phone gaming, video gaming are some of the few examples that social media can have adverse effects on adolescents' self-perception as well as interpersonal connections [5]. In the United States in 2014, 81% of 12–17 years used social media. Internet connectivity and social media use by young people in low- and middle-income nations are growing, although not to the exact extent as in high-income one's [3].

Social media platform is one of the variables affecting sexual behavior among teenagers in today's society. Using these platforms has positive and harmful effects on adolescents, particularly regarding sexual content. They learn through watching individual interactions displayed on these platforms and then assimilating them, notably when their personalities are recognized or seem spared from the consequences of their actions [7].

According to Jumia's Annual Mobile Report 2018, Ghana is one of the top mobile markets in Africa, with 34.57 million users and a subscriber base of 119%. (www.ghanaweb.com). According to a study by international digital organizations. We Are Social, and Hootsuite, Ghana has 5.6 million active social media users, 19.53 million phone users, and 9.28 million active wireless internet clients, making up 32% of the country's population. (www.businessworldghana.com).

Most teenagers prefer to be alone at this age rather than share time with their parents and family. Due to this, most parents find it challenging to hold conversations with their children. As a result, they get much of their sexual information from colleagues, friends, and social media. Adolescent interaction is most productive when it occurs within a client-therapist relationship that is transparent and nonjudgmental, fosters trust and mental comfort, and provides a sense of involvement and liberty [8].

Adolescents even have social media mentors as artists, actors, broadcasters, and entertainers. Those influencers frequently share details about their private lives, fashion choices, and views on sexual topics on social networks. Adolescents can be greatly affected by culture and the surrounding environment. As a result, adolescents pick up information from their surroundings. Their sexual behaviors are influenced by their mimicking or emulating sexual actions on social media. Adolescents acquire sexual practices including the frequency of sex depicted as appropriate on social media, several sex partners, casual sex partners, and contraception.

Social media users may be susceptible to concerns such as inaccurate self-diagnosis, decreased personal interaction, dependency, probable privacy violations, insecurities, and anxiety [9, 10]. Despite these obstacles, numerous studies have shown positive impacts linked with social media utilization, such as availability of information, support availability through online support groups, drive, and personal worth [11, 12].

Several studies have been conducted in Ghana on adolescent reproductive health information, service, and associated factors. An investigation was undertaken to evaluate the perception level and point out the main factors of measuring the standard of care [13]. A study on adolescent reproductive health to assess the influencing factors, education and the usage of reproductive health facilities indicates that 85% had the knowledge sexually transmitted infections as the prevailing issue, with 78% and 50% of adolescents had gone through reproductive health education [14].

Adolescents experience mental, physical, physiological and mental challenges that affect their developmental and productive potential. Girls forced into undesirable relationships or marriages become victims of unsafe abortions, unintended pregnancies, high-risk childbirth, STDs, and even HIV. A study conducted in Yong Dakpemyili shows that 37% of pregnant adolescents have abortions, 11% go through cesarean section during delivery, 8.9% are stillborn and 7% have early neonatal mortality Field [15]. Adolescents frequently lack knowledge about sexually transmitted infections (STIs), pregnancy, HIV/AIDS screening and treatment, and other reproductive health issues, all serious health concerns in Ghana. As a result, the country's progress toward achieving Sustainable Development Goal 3 is hampered.

By the District Health Information Management System of Ghana Health Service, from 2016 to 2020, there are 555,575 adolescent pregnancies in Ghana; 13 teenage pregnancies were recorded each hour, and 110,000 were recorded in 2020. Despite the prospect of social media in disseminating juvenile sexual and reproductive information, this has not been explored in Ghana. For instance, there needs to be more research on how adolescents utilize social media to seek resources for reproductive health. In the Tamale metropolis, more study is required on this subject. Against this backdrop, this study aims to assess the contribution of social media usage in adolescent reproductive health services and information in the Tamale metropolis.

2. Theoretical framework

The Unified Theory of Acceptance and Use of Technology (UTAUT) serves as the theoretical foundation for this study. The need to employ technological innovation is influenced by performance expectations, effort expectations, and social influence [16]. The theory is renowned for examining the moderating impact of user demographics on the link between social media variables and user behavioral intention. This theory is an integration of eight other crucial theories, such as the Technology Acceptance Model (TAM) by [17], the Model of Personal Computer Utilization (MPCU) by Varela et al. [18], the Innovation Diffusion Theory (IDT) by Rogers [19], the Theory of Reasoned Action (TRA) by Fishbein and Ajzen [20], the Motivational Model (MM) by Davis et al. [21], the Theory of Planned Behavior (TPB) by Ajzen [22], Social Cognitive Theory (SCT) by Compeau and Higgins [23], and finally a Combined TAM-TPB (C-TAM-TPB) by Taylor and Todd [24]. It is crucial to note that UTAUT is shown to be a better acceptable predictor of the chance of technology innovation success after a thorough analysis of other reliable models [25]. UTAUT aids in a better understanding of the factors that influence adolescents' adoption of technology, who are notoriously aggressive and engaged in pursuing sexual and reproductive options. UTAUT is the preferred theoretical framework for this study because it has four aims. The Unified Theory of Acceptance and Use of Technology (UTAUT) is formulated after empirically examining the existing users' acceptance models and confronting the eight models described above. It is then validated. It is crucial to remember that sociocultural influences play a role in the social media usage of adolescents in Ghana. According to the theory, individual intentions to employ technological innovation are influenced by social influence, effort, expectations, and performance. Social media offer adolescents the space mentioned above. Peer influence, coupled with their youthful exuberance and desire to try new things, found expression in social media, which meets their expectations. The theory is well recognized for examining the moderating effect of user demographics on the association

between social media factors and user behavioral intention. UTAUT was chosen for this study because it is a more accurate predictor of the likelihood that technological advances will succeed [25]. UTAUT provides the required philosophical underpinning to understand the factors that influence technology acceptance and adolescents' use of social media to access sexual reproductive information so that the necessary policies can be developed.

3. Methods

3.1 Study setting

Tamale is the official capital town of the Northern Region. It also unofficially doubles as the capital of northern Ghana because it hosts all manner of people across the north and south of Ghana. It is a cosmopolitan settlement and the third-largest city in Ghana. In the past three decades, sporadic and spasmodic eruptions of ethnic, religious, chieftaincy and land conflicts, forced hundreds of people from the hinterlands to migrate to Tamale. The metropolis also has some of the best educational institutions in Ghana; three universities, two colleges of education, two nursing training colleges, about 20 Senior high Schools and more than 200 basic schools. Tamale also has some of the best health facilities, including the Tamale Teaching Hospital, Tamale West Hospital, Central Hospital, SDA Hospital, and many other private hospitals.

Tamale was chosen for the study because it has some of the best socio-economic infrastructure and offers opportunities to many people across the globe. Due to its cosmopolitan nature, it also has cultural diversity and offers a resemblance of miniature Ghanaian and global cultures. More importantly, the study dwelled on Senior High Schools (SHS) because most of the adolescents using the social media are concentrated in these schools. Secondly, due to the computerized SHS placement system adopted in Ghana over a decade ago, the SSS comprises students from all over Ghana and from different geographical, religious, cultural and ethnic backgrounds.

3.2 Study population and sampling

Teenagers (10–19) enrolled in senior high schools in Tamale Metropolis were the target population. The formula for a point estimate sample developed by Snedecor and Cochran [26] was used to determine the sample size. In a survey by Marie et al. in 2020, they indicated that about 66.7% of teenagers used social media to look up health-related information. This study also adopted 66.7% proportion of social media usage as the basis.

$$N = Z^2 \{P\} \{1 - P\} / m^2$$

$$Z (\text{Standard value for 95\% confidence level}) = 1.96$$

$$P (\text{Proportion of social media usage for ASRHS}) = 66.7\% (0.667)$$

$$m (\text{margin of error}) = 5\% (0.05)$$

$$N = 1.962 \{0.667\} \{1 - 0.667\} / 0.052$$

$$N = 3.8416 \{0.667\} \{0.333\} / 0.0025$$

$$N = 341.3$$

In all, the total sample size was 342 adolescents.

3.3 Sampling technique and procedure

The Tamale Metropolis has eight public senior high schools, including vocational ones. Using a multistage selection strategy, the adolescents for this study were selected for the sample. The first stage involved the simple random selection ('the lotto technique') of the Senior High Schools in the Tamale metropolis. This was to ensure that all the SHS have equal chances of being selected. Thus, four SHS were selected; Ghana Senior High School, St. Charles Seminary, Vitting Senior High and Tamale Girls' Senior High School. The second stage involved sampling adolescents from these schools. A proportionate-to-size sampling approach was used to determine the number of adolescents to be selected from each school. A simple random sampling approach was then used to select students eligible to participate in the study. The eligibility criteria were being an adolescent and having access to a computer or cell phone. Thus, 342 adolescents were selected. In addition, six focus group discussions (FGD) were held in various parts of Tamale; Bamvum, Changli, Zogbeli, Gumani, Dungu and Kpalsi. Two groups were a mixture of boys and girls, another two groups were only boys, and the last two were only girls. The mixed focus groups comprised of eight adolescents, four girls and four boys. The purpose of the FGDs was to get detailed information from the adolescents to complement the survey data (**Table 1**).

3.4 Data collection tools and procedures

Self-administered questionnaires were used for data collection in this study. The questionnaire was the leading tool to gather the data, and it was made of three sections, including sociodemographic characteristics of respondents, knowledge and utilization and the factors influencing adolescent sexual and reproductive health services.

3.5 Data management and statistical analysis

Data collected were entered into Microsoft Excel 2017, cleaned and imported into STATA version 16.0 for analysis. The researchers ensured that participants were

Name of school	Student population	Boys	Girls	Number selected
Ghana Senior High School	1885	976	909	140
St. Charles Seminary	309	309	0	23
Vitting Senior High	1118	792	326	83
Tamale Girls' Senior High School	1300	0	1300	96
Total	4612	2077	2535	342

Table 1.
Proportion of students sampled from selected senior high schools.

taken through the questionnaire to understand each question well. Respondents were also given 2 weeks to return the completed forms. This provided them ample time to respond to all the questions. Categorical variables such as sex, marital status, religion, utilization of services, type of media and the platform used were analyzed and summarized using frequencies and proportions at a 95% Confidence Interval (CI). Quantitative continuous variables such as age were summarized into mean and standard deviation. A chi-square test of association was employed to evaluate the relationship between the result variable and the different variables. The chi-square analysis's level of significance was set at 5%. At a significance threshold of 5%, a crude and adjusted binary logistic regression was employed to assess the strength of the correlation between the outcome variable and the numerous variables.

4. Results

4.1 Sociodemographic characteristics of the study participants

Of the 342 students studied, 98.3% were between 15 and 19. About two-thirds of the students were females. More than half (57.0%) reside in urban areas. The majority, 95.3%, were single in terms of marital status. The occupation of their parents or guardians, most of them were traders. Most of the students were from the second year (**Table 2**).

4.2 Study participants reproductive health characteristics

More than one-third of the respondents (40.6%) were in a romantic relationship, and 86.8% mentioned they were not sexually active at the time of the study. Their awareness of reproductive health services, almost all (93.9%) were aware of the services, with the majority of the respondents (85.7%) getting their source from schools (**Table 3**).

4.3 Social media utilization among study participants

On their access to social media, when asked about the ownership of mobile phones, more than two-thirds (76.9%) answered affirmatively, 51.5% accessed social media, and 71.2% mentioned Facebook as the most frequently used social media. On how often they visited social media, the majority 74.3% said sometimes. The majority of the respondents (69.6%) preferred accessing reproductive health services via social media, and most of them stated that the problem for which they accessed social media reproductive services was solved after accessing it (**Table 4**).

4.4 Accessing reproductive health information through social media

Out of the 342 students studied, 45.4% 95%CI (40.0–51.0) indicated they have ever accessed reproductive health information through social media (**Figure 1**).

4.5 Sociodemographic characteristics of the participants, Tamale Metropolis, 2022

The Chi-square analysis showed that respondents' place of residence ($p < 0.040$) and occupation of guardian ($p < 0.040$) were significantly associated with accessing reproductive health information via social media (**Table 5**).

Characteristics	Frequency (N)	Percentage (%)
Age group (years)		
10–14	6	1.75
15–19	336	98.25
Sex		
Female	235	68.71
Male	107	31.29
Religion		
Christianity	95	27.78
Islam	247	72.22
Marital status		
Single	322	95.27
Married	5	1.48
Cohabiting	11	3.25
Residence		
Rural	147	42.98
Urban	195	57.02
Education		
SHS Form 1	1	0.29
SHS Form 2	293	85.67
SHS Form 3	48	14.04
Occupation of guardian		
Farmer	108	32.34
Government employee	74	22.16
Trader	140	41.92
Others	12	3.59

Table 2.
Sociodemographic characteristics of the study participants.

Characteristics	Frequency (N)	Percentage (%)
Romantic relationship		
No	203	59.36
Yes	139	40.64
Sexually active		
No	296	86.80
Yes	45	13.20
Awareness of RH		
No	21	6.14
Yes	321	93.86

Characteristics	Frequency (N)	Percentage (%)
Information source		
Family members	13	4.05
School	275	85.67
Friends	6	1.87
Media	9	2.80
Religious gathering	5	1.56
Health provider	13	4.05

Table 3.
Study participants reproductive health characteristics.

Characteristics	Frequency (N)	Percentage (%)
Phone ownership		
No	79	23.10
Yes	263	76.90
Social media use		
No	166	48.54
Yes	176	51.46
Media frequently used		
Facebook	111	71.15
Instagram	12	7.69
Twitter	4	2.56
YouTube	29	18.59
Frequency of use		
Always	23	15.13
Rarely	16	10.53
sometimes	113	74.34
Preference for accessing RH		
Physical	92	30.36
Social media	211	69.64
Means of access		
Communication App	39	14.89
Text (SMS)	86	32.82
Video call	12	4.58
Voice call	18	6.87
Websites	107	40.84
Problem solved		
No	53	21.54
Yes	193	78.46

Table 4.
Social media utilization among study participants, tamale metropolis.

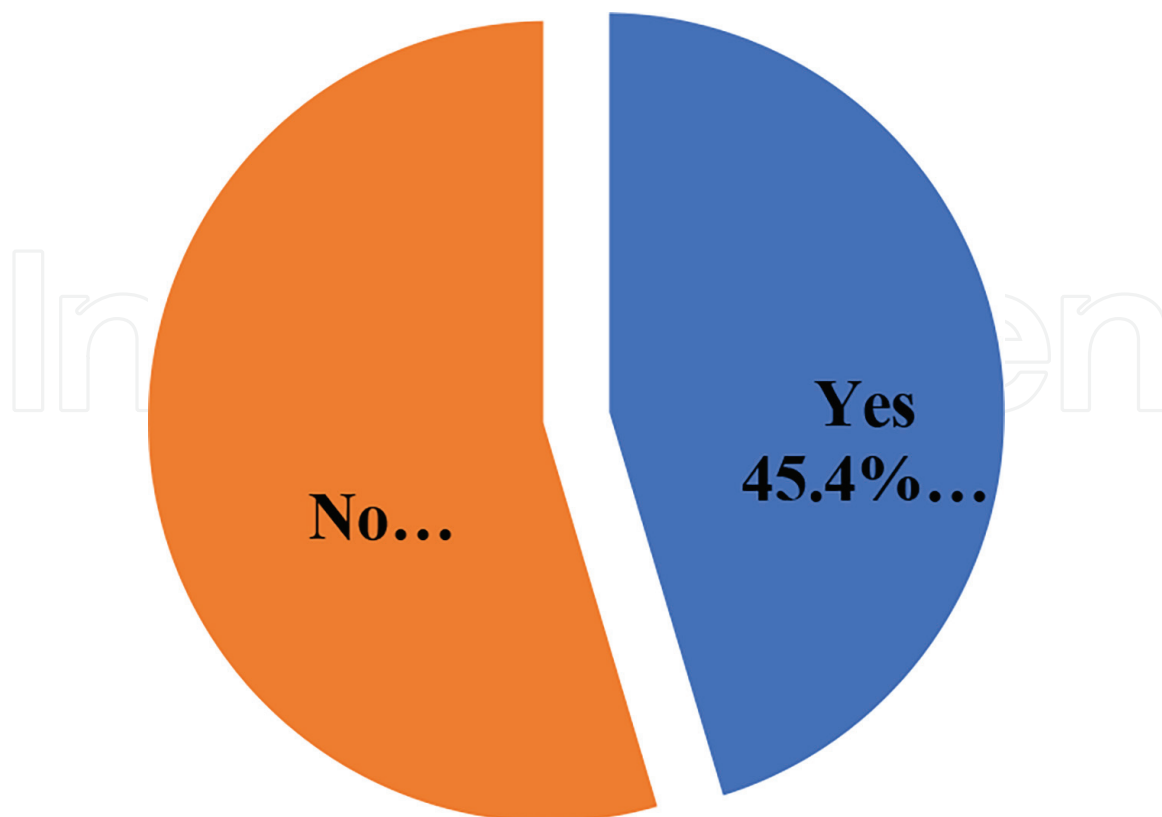


Figure 1. Accessing reproductive health information through social media, Tamale Metropolis. Chi-square test of Association between accessing RH using social media and.

Characteristics	Social media to access RH		χ ²	P-value
	No	Yes		
Age group (years)			1.321	0.250
10–14	4 (80.0%)	1 (20.0%)		
15–19	180 (54.22%)	152 (45.78%)		
Sex			3.444	0.063
Female	134 (58.01%)	97 (41.99%)		
Male	50 (47.17%)	56 (52.83%)		
Religion			1.557	0.212
Christianity	57 (60.00%)	38 (40.00%)		
Islam	127 (52.48%)	115 (47.52%)		
Marital status			2.211	0.331
Cohabiting	7 (70.00%)	3 (30.00%)		
Married	4 (80.00%)	1 (20.00%)		
Single	184 (55.26%)	149 (44.74%)		
Residence			4.203	0.040**
Rural	89 (60.96%)	57 (39.04%)		
Urban	95 (49.74%)	96 (50.26%)		

Characteristics	Social media to access RH			P-value
	No	Yes	÷2	
Education			1.256	0.534
SHS Form 1	0	1 (100.00%)		
SHS Form 2	157 (54.51%)	131 (45.49%)		
SHS Form 3	27 (56.25%)	21 (43.75%)		
Occupation of guardian			8.289	0.040**
Farmer	69 (65.09%)	37 (34.91%)		
Government employee	31 (43.66%)	40 (56.34%)		
Trader	75 (53.57%)	65 (46.43%)		
Others	6 (50.00%)	6 (50.00%)		

Chi-square test of Association between accessing RH using social media and sociodemographic characteristics of the participants.

Table 5.

Bivariate analysis of the association between accessing RH using social media and sociodemographic characteristics of the participants.

4.6 Participants reproductive health characteristics, tamale metropolis

The Chi-square analysis showed that being in a romantic relationship ($p < 0.001$), and having an awareness of reproductive health ($p < 0.040$) were significantly associated with accessing reproductive health services via social media (Table 6).

4.7 Social media utilization among study participants, tamale metropolis

The Chi-square analysis showed that respondents' mobile phone ownership ($p < 0.004$), social media use ($p < 0.001$), means of accessing RH using a mobile phone

Characteristics	Social media to access RH			P-value
	No	Yes	÷2	
Romantic relationship			16.664	0.001**
No	127 (63.82%)	72 (36.18%)		
Yes	57 (41.30%)	81 (58.70%)		
Sexually active			3.751	0.053
No	165 (56.51%)	127 (43.49%)		
Yes	18 (40.91%)	26 (59.09%)		
Awareness of RH			4.212	0.040**
No	16 (76.19%)	5 (23.81%)		
Yes	168 (53.16%)	148 (46.84%)		

Chi-square test of Association between accessing RH using Social Media and participants' reproductive health characteristics.

Table 6.

Bivariate analysis of association between accessing RH using social media and participants' reproductive health characteristics.

($p < 0.02$) and whether their problem was solved ($p < 0.001$) were significantly associated with accessing reproductive health services via social media among the study participants (Table 7).

4.8 Factors associated with using social media to access reproductive health services

Male students were more likely than female students to use social media to get reproductive health services, with a difference of 62%. (aOR = 1.62, 95% CI 1.01–2.59). Students who resided in urban areas had 55% higher odds of accessing reproductive health services via social media than their rural dwelling colleagues (aOR = 1.55, 95% CI 1.00–2.41). On their relationship status, students who were in a romantic relationship had 2.3 times increased odds of accessing reproductive health services via social media compared to their colleagues who were not in any romantic relationship (aOR = 2.25, 95% CI 1.39–3.64,). Among students who use social media,

Characteristics	Social Media to access RH			P-value
	No	Yes	÷2	
Phone ownership			8.155	0.004**
No	53 (68.83%)	24 (31.17%)		
Yes	131 (50.38%)	129 (49.62%)		
Social media use			53.974	0.001**
No	122 (75.31%)	40 (24.69%)		
Yes	62 (35.43%)	113 (64.57%)		
Media frequently used			2.374	0.498
Facebook	35 (31.82%)	75 (68.18%)		
Instagram	6 (50.00%)	6 (50.00%)		
Twitter	1 (25.00%)	3 (75.00%)		
YouTube	12 (41.38%)	17 (58.62%)		
Preference for accessing RH			2.147	0.143
Physical	50 (56.18%)	39 (43.82%)		
Social media	99 (46.92%)	112 (53.08%)		
Means of access			12.791	0.012**
Communication App	19 (48.72%)	20 (51.28%)		
Text (SMS)	40 (46.51%)	46 (53.49%)		
Video call	7 (58.33%)	5 (41.67%)		
Voice call	11 (64.71%)	6 (35.29%)		
Websites	32 (29.91%)	75 (70.09%)		
Problem solved			14.058	0.001**
No	32 (60.38%)	21 (39.62%)		
Yes	62 (32.12%)	131 (67.88%)		

Table 7.
 Association between accessing RH via social media and social media utilization among study participants.

Characteristics	COR 95%CI	P-value	AOR 95%CI	P-value
Age group (years)				
10–14				
15–19	3.38 (0.37–30.54)	0.279	3.36 (0.37–30.87)	0.284
Sex				
Female				
Male	1.55 (0.97–2.46)	0.064	1.62 (1.01 2.59)	0.045**
Religion				
Christianity				
Islam	1.36 (0.84–2.20)	0.213	1.47 (0.90 2.40)	0.126
Marital status				
Married				
Single	2.30 (0.72–7.39)	0.160	2.03 (0.63 6.61)	0.238
Residence				
Rural				
Urban	1.58 (1.02–2.44)	0.041	1.55 (1.00 2.41)	0.054**
Education				
SHS Form 2				
SHS Form 3	0.93 (0.50–1.71)	0.804	0.93 (0.50 1.73)	0.814
Romantic relationship				
No				
Yes	2.51 (1.61–3.91)	0.001	2.25 (1.39 3.64)	0.001**
Sexually active				
No				
Yes	1.88 (0.99–3.57)	0.055	1.20 (0.60 2.42)	0.601
Awareness of RH				
No				
Yes	2.82 (1.01–7.88)	0.048	2.14 (0.75 6.10)	0.153
Phone ownership				
No				
Yes	2.17 (1.27–3.73)	0.005	2.01 (1.17 3.49)	0.013**
Social media use				
No				
Yes	5.56 (3.46–8.92)	0.001	6.37 (3.68 11.05)	0.001**
Media frequently used				
Messaging apps				
YouTube	0.71 (0.31–1.62)	0.414	1.20 (0.32 4.42)	0.787
Problem resolved				
No				
Yes	3.22 (1.72–6.03)	0.001	3.403 (1.63 7.09)	0.001**

Table 8. Multivariate analysis of factors associated with using social media to access reproductive health services.

there were 6.37 times increased odds of accessing reproductive health services via social media compared to their colleagues who do not use social media (aOR = 6.37, 95% CI 3.68–11.05) (**Table 8**).

4.9 Prospects and challenges

The prospects of using social media to access reproductive health information is grate. The fact more adolescents are using it means it can survive generations. Secondly, there is wider coverage of internet serves in Ghana. The last point is that there is no restrictions to the use of social media in Ghana.

However, the use of social media to access sexual reproductive health information by adolescents comes with some challenges. The study revealed that it has cost implications as it requires smartphones and data for the internet. The study showed that 89% of adolescents considered this twin cost the main obstacle. Smartphones are costly, and only a few adolescents from well-to-do families can afford them. During the FGDs, it came up strongly that most adolescents' desire to own smartphones compels them to engage in thievery. They claimed that most girls who cannot afford them are also involved in prostitution to be able to acquire and maintain them.

Another challenge frequently mentioned by the respondents is the authenticity of the information they obtained through various social media. They get the information mainly from Tiktok, Instagram, Twitter, Whatsapp, Facebook, as well as Google and Yahoo search engines. Sometimes it is difficult to authenticate the veracity of the information they consume. Over three-quarters of the respondents (87%) claimed that some of the information they get from these sources is unreliable and has cost many complications for most adolescents. During the FGDs, respondents cited examples of girls who got pregnant and complicated their situation by relying on social media information to get rid of their pregnancies.

The third major challenge they cited was time consuming, especially by the students. Adolescents spend a lot of time on the social media at the expense of their studies. They claimed that most adolescents spend 2–3 hours per day on their phones. This affects not only their studies, but also their socialization processes. They indicated that most adolescents are engaged in cybercrimes, fraudulent internet deals, games, and pornography.

5. Discussion

The advent of mHealth is due to the development of mobile communication. mHealth services have the chance to make health promotion, protection and prevention interventions easy to access and may also reduce time and distance [27]. With the fast development of mobile communication, there has been a rush in a study into the health advantages of mobile phone use. Experts from various academic fields have been researching popular social media platforms like WhatsApp, Twitter, and Facebook in light of today's culture, including the issues they raise for politics, interpersonal relationships, the general welfare of society, and mental health. With the development of digital and mobile technology, people are now more able than ever to engage in extensive engagement; as a result, a new media era has emerged, having interaction at the core of new media activities.

This study accessed Tamale Metropolis's teenage reproductive health services and information via social media. According to the report, less than half of the teens in

the survey had ever used social media to acquire knowledge or services related to reproductive health. This shows that even though teens in the Tamale metropolitan use social media frequently, less than 50% use it to find resources for their reproductive health.

This aligns with research from the Internet and American Life Project at the Pew Research Center, which found that an estimated 30% of youth use social media to learn about health-related topics. This, however, conflicts with the results of a study done in Nigeria with 1800 girls randomly chosen from 18 public senior secondary schools in Lagos State, where social media was the least reliable source of information or services on reproductive health [28]. Additionally, although 94.6% of adolescents use social media, only 3.5% said they used it to look for health-related information, according to a survey by Plaisime et al. [29]. Furthermore, most participants in a cross-sectional study in Nigeria stated that social media was the most often used channel for receiving SRH information and services [30]. Additionally, a study conducted in 2015 by González-Ortega, Vicario-Molina, Martnez, and Orgaz shows that 68.4% of teenagers utilize social media for sexual education.

The use of social media will affect how often teenagers use it to receive services related to adolescent reproductive health. Compared to teenagers who do not use social media, those who do are more likely to discover and use reproductive services. This study found that social media is used by half of the teenagers. Paraphs, because the study was conducted in school, where the school authorities restrict students from using, cell phones, that was why only half of them claimed they used cell phones. A much higher proportion was reported in a study conducted in Philadelphia, USA, where 94.6% of teens said they used social media [29]. The inconsistency in findings could be attributed to the disparity in the settings of the studies.

Regarding social media, they frequently visited, most mentioning Facebook. However, this is inconsistent with a study by Plaisime, which reported Instagram as the social media frequency by study participants [29].

Policymakers and organizations participating in adolescent reproductive health services will make better decisions if they know and comprehend adolescents' choices when deciding how to receive reproductive health information and services. This study found that most teenagers would instead use social media to acquire reproductive health information and services than go to reproductive health facilities. When asked why they would not want to attend a health centre for their reproductive health concerns, students in a focus group discussion cited the attitude of the staff members and how others saw the institution. This conclusion is supported by research by Gray et al. [31], which found that the internet and GPs/family doctors were teenagers' primary sources of knowledge on reproductive health (49.1% and 38.9%, respectively). However, this is inconsistent with the findings of a study conducted by Lim et al. [32], where fewer participants reported being comfortable getting information from social media. The disparity in findings could be attributed to the difference in the characteristics of the study participants. Lim et al., [32] studied young people aged 16–29 years, unlike this study, which interviewed adolescents aged 10–19.

A study by Goodyear et al. [33] stated in general, when looking for healthcare information, young people are turning to new technologies, notably social media. According to their research, social media provides extraordinary and unusual opportunities for the young to be educated and know about health. Additionally, it has a great range of effects on behavioral changes regarding health and lifestyle. Furthermore, persons 18–29 years old were shown to be much more likely to use

social media sites to seek remedies for health issues. The survey also discovered that joining health groups on social media is simpler than joining traditional health or fitness groups [33]. Texting on cell phones is more frequent among Ghanaian young aged 18–34 than those aged 35 and beyond [34]. Media has long been recognized as a valuable instrument for enhancing health. The World Health Organization (WHO) proposed transferring health-related information via engaging and audio-visual tools in 1986. Following this, digital technology, also called mobile health (mHealth), has emerged as a means for fostering and attaining health. Using a mobile phone to improve healthy behaviors is known as the mHealth [35].

Consequently, mHealth is viewed as having potential since it addresses the challenges of services being out of reach, if not completely inaccessible, for the most vulnerable people and sexual and reproductive health topics being controversial in most societies [36]. According to recent studies, youth support mobile health programs that can raise general health awareness [36]. mHealth is gathering steam as a critical avenue for connecting young people who face numerous obstacles and difficulties in gaining access to adolescent youth-friendly institutions and has been an effective tool for offering young people information on adolescent reproductive health and services [37]. Health may solve this nomad problem by giving young people ongoing access to knowledge and information. In a research conducted in Ghana in 2015, 31% of participants aged 14–18 and 71% of participants aged 19–25 owned a mobile phone, while 77% of those aged 14–18 and 91% of those aged 19–25 had used a cell phone in the previous 4 weeks [38].

Although the potential for government m-health initiatives to improve healthcare in locations with limited resources has received widespread praise, this opportunity has not yet been fulfilled in the execution of large-scale policy [39]. According to a survey, men are more likely than women to use mobile phones, and young people from higher socioeconomic levels are also more likely to purchase and use mobile phones [40]. According to a study by Rokicki [36], mHealth platforms for teenagers have the potential to engage and increase health awareness among teenage girls from all socioeconomic backgrounds, particularly those who are more likely to experience poor sexual and reproductive health outcomes.

According to the study, a statistically significant link exists between having sex and using teen reproductive health services. Males in this study had higher odds of accessing adolescent reproductive health services via social media than their female counterparts. This may be explained by the fact that guys make up most of the study's social media users. The results of a survey by Marie, which showed a statistically significant sex difference in the frequency of Facebook, Twitter, and Instagram usage for reproductive health information and services, are consistent with these findings [29].

Students' residency during school breaks was another factor that significantly influenced the use of social media to access adolescent reproductive health information and services. Students who resided in urban areas during school breaks were found to have higher odds of accessing health information via social media compared to their counterparts who dwelled in rural regions during school breaks. This could be explained by the availability of electricity and internet connectivity in urban settings compared to rural locations.

Another element that was discovered to be connected to teens using social media to seek information on adolescent reproductive health was their relationship status. Comparatively to those who were not in a romantic relationship, adolescents were more likely to receive information about reproductive health.

The type of reproductive health information and services adolescents are interested in depends significantly on how sexually active they are. Adolescents who engage in sexual activities are more inclined to learn about reproductive health than adolescents who are naïve to sexual activity. More than two-thirds of them were found to be inactive sexually, according to the study. It can be inferred that most teenagers had not engaged in sexual activity. This contrasts with the results of a survey conducted by Asare et al. [41], which indicated that 50.4% of young people were sexually active and that 77.3% of them initiated sex after the age of 15.

Individuals' awareness and knowledge about a service influences their engagement or utilization. Adolescents will only use social media to access reproductive health information and services if they are aware of these services and which social media to visit for this information. This study revealed that over 90% of participants were mindful of adolescent reproductive health services. This suggests that most adolescents in the survey know the benefits of adolescent reproductive health. This aligns with the findings of cross-sectional research on reproductive health knowledge and practices among female adolescents in a Mumbai urban slum, where 212 (88%) women were aware that ARHS services were offered [42]. The consistency in findings can be attributed to the urban nature of the settings of these studies. The results of a survey conducted in Oyo state, Nigeria, where just 13.1% of participants were aware of the adolescent reproductive health services; however, contradict this finding [43].

Adolescents' awareness and use of these services will be influenced by the sources of information and services available to them on adolescent reproductive health. Regarding their source of information, the study revealed that the majority cited school as their source of reproductive health information. This could be explained by the fact that all the adolescents studied were second and third-year students who received lectures on adolescent reproductive health in social studies. Knowing that most adolescents obtain information on their reproductive health from schools, it will be essential to introduce courses that teach students the correct information without shying them away. In a similar study, the majority of the respondents, 72.4 per cent, learned about adolescent reproductive health services school staff. Also, most believed that adolescent sexual and reproductive services and information were critical for young people [44]. This consistency in findings could be attributed to the fact that both studies were conducted among adolescents in secondary schools.

The judgmental nature of health care providers at our health facilities is a critical factor that shies adolescents from accessing reproductive health services. Adolescents will, however, rely on social media, where there will be no individual to judge the kind of information they search for or the questions they ask. Also, the students stressed the need for more practical examples in our facilities as one of the reasons why they will prefer getting reproductive health information via social media instead of the health facility. On social media, video evidence of questions is provided to illustrate further for students to understand. Considering the age of these students, they would prefer visuals as a means of communication compared to just words or statements.

This aligns with another study examining how teens utilize social media to get reproductive health care. This study identified a barrier to young people using the services provided by adolescent health clinics as the absence of confidentiality at the delivery stations [45]. Facilities have to arrange to give privacy to patients or clients during their sessions, whether via physical boundaries between counseling and professional areas or other appropriate arrangements. Another study in Uganda discovered that most service facilities lacked enclosures to give young girls and boys privacy. Only one higher-order hospital was known to have a site where youth programming

might be offered. With this, no healthcare facility had a separate reception area for young people to provide service without interruption from other staff [46].

In addition, many teenagers think it would be humiliating to have their marital status questioned if they were to engage in family planning because most of them will not be married then. Additionally, one person said family planning was not for adolescents but for grownups [44]. In this same survey, A service giver stated his hesitation about delivering contraception to a 13-year-old girl.

Just like every study, this study has certain restrictions. The findings are based on self-reported, individual data that respondents' social desirability may skew due to participants filling out surveys in a school setting.

6. Conclusion

Social media has come to stay. It has started having a tremendous influence on the youth and adolescents who have found it safer and more convenient to consult rather than relying on their parents and families for sexual reproductive information, which in most societies is taboo to discuss. Adolescent heavily rely on social media because there is a lack of access to this information in a safe, friendly and culturally sensitive manner. Those who attempt to obtain this information are either rebuked or tagged as bad. As a result of the stigma associated with getting sexual reproductive health information from peers, family members, and teachers, they find social media the most convenient place to obtain this information. Sex, social media usage, urban or rural residence and adolescent romantic relationships were factors significantly associated with their access to juvenile reproductive health information via social media. Despite the high utilization of social media for reproductive health services, there is no clear-cut policy in Ghana on social media and how to regulate it to ensure that the information put out there is not harmful to the adolescents.

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