

Male Undergraduate Students' Knowledge of and Attitude Towards Emergency Contraceptives

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Abstract

This study sought to explore the relationship between male students' knowledge and attitude towards emergency contraceptives. Self – administered questionnaires were used in collecting data from 941 male respondents who were in their second, third or fourth year at the University of Ghana. These respondents were conveniently sampled from the four Colleges of the University of Ghana. Employing the theory of knowledge, attitude and practice, this paper investigates male knowledge and attitude towards emergency contraceptives. Although some students had favourable and others had unfavourable attitude towards emergency contraceptives, most of them (82%) had mixed attitude towards emergency contraceptives. Multinomial logistic regression results showed that students who belonged to the College of Education were significantly more likely to have favourable than unfavourable attitude towards emergency contraceptives. Since men play active roles in decision – making processes in reproductive health matters it is important that they are involved in all reproductive health programmes. This, in the long run, will help reduce unintended and unplanned pregnancies and subsequently unsafe induced abortions.

Key Words: *emergency contraceptives, male students, attitude towards emergency contraceptives, undergraduate students, knowledge of emergency contraceptives.*

Résumé

Cette étude visait à explorer la relation entre les connaissances et l'attitude des étudiants masculins à l'égard des contraceptifs d'urgence. Des questionnaires auto – administrés ont été utilisés pour recueillir des données auprès de 941 hommes interrogés qui étaient en deuxième, troisième ou quatrième année à l'Université du Ghana. Ces répondants ont été commodément échantillonnés dans les quatre collèges de l'Université du Ghana. En utilisant la théorie de la connaissance, de l'attitude et de la pratique, cet article examine les connaissances et l'attitude des hommes envers les contraceptifs d'urgence. Bien que certains étudiants aient eu une attitude favorable et d'autres une attitude défavorable à l'égard des contraceptifs d'urgence, la plupart (82%) avaient une attitude mitigée envers les contraceptifs d'urgence. Les résultats de la

régression logistique multinomiale ont montré que les étudiants qui appartenaient au Collège of Education étaient beaucoup plus susceptibles d'avoir une attitude favorable que défavorable envers les contraceptifs d'urgence. Étant donné que les hommes jouent un rôle actif dans les processus décisionnels en matière de santé génésique, il est important qu'ils soient impliqués dans tous les programmes de santé génésique. À long terme, cela contribuera à réduire les grossesses non désirées et non planifiées et, par la suite, les avortements provoqués à risque.

Mots clés: *contraceptifs d'urgence, étudiants de sexe masculin, attitude envers les contraceptifs d'urgence, étudiants de premier cycle, connaissance des contraceptifs d'urgence.*

Young people usually tend to be adventurous and are inclined towards sexual experimentation and other sexual behavior. According to the latest Ghana Demographic Health Survey (GDHS), the median age at sexual debut for women and men between the ages of 20 – 24 years was 18.4 years and 20 years respectively (Ghana Statistical Service, 2015). Most of these young people at this state of their lives are likely to be in school. These ages interestingly are similar to the age bracket (17 – 25 years) of majority of students in universities in Ghana especially at the undergraduate level. As Kitshoff (2010) succinctly puts it, students in higher education are part of a significant high – risk group since they find themselves at a stage of sexual discovery.

Often times, they may be aware of the implications of their behavior but they tend to ignore information available to them. Most of these people when sexually active may not use any means to protect themselves against sexually transmitted infections (Ningpuanyeh and Susuman, 2016).

Currently, with the upsurge in the use of various social media, there is a lot of information out there and people are provided with information even without asking for it. It is therefore likely that students of the University of Ghana have ample information about reproductive health issues. Do they have the right information? If they do, the question is how do they put to use this information available to them? Given the adverse effects of having unprotected sexual intercourse which include unintended pregnancies, sexually transmitted infections (STIs) and unsafe abortions, there is growing interest in the potential impact that emergency contraceptives could play in addressing some of these concerns.

Emergency contraception is largely considered to be the most effective method to prevent pregnancy after unprotected sex (Ellertson, 1996). Emergency contraception has been defined by the World Health Organisation (2018) as methods of contraception that can be used to prevent pregnancy after sexual intercourse. These are recommended for use within five days but are more effective the sooner they are used after the act of intercourse.

Although emergency contraceptives (EC) can be a useful tool in preventing unintended pregnancy, studies on the use of EC among women indicate that even when

women have heard of EC, they are unlikely to use them (Spence et al., 2003). The use of emergency contraception is generally affected by access, knowledge, perceptions and attitudes towards them. These could be influenced by male partners.

The discrepancy between reproductive preferences and birth control practices has been termed “Knowledge Attitude Practice (KAP) gap” (Bongaarts, 1991). For KAP, the focus is change in the target audience in terms of adopting new knowledge, attitude and behavior (Lindgren, 2017). In KAP studies, information is collected on a specific topic to identify what people know, how they feel and what they do. In other words, KAP studies show the relationship between knowledge attitude and practice on the assumption that knowledge determines attitude and attitude in turn determines practice (Kilale, 2016).

KAP studies on family planning in the past have indicated that respondents wanted to stop childbearing but were not practicing contraception (Bongaarts, 1991). Obviously this is an inconsistency between what they want and what they do.

Some studies that have used KAP in family planning/contraception are those of Nataraja and Harshini, (2013), Srivastava, (2005) and Kaushal et al., 2010. These studies were to determine the knowledge, awareness and practice of various contraception in women who wanted to terminate their pregnancy.

This current paper uses the lens of KAP in analyzing the behavior of male undergraduate students of the University of Ghana. First the theory is found appropriate since most studies on family planning and contraception have utilised it, it would be appropriate to find out to what extent it is applicable also in this study. Furthermore, a gap in the literature which this study seeks to fill is that most studies on KAP on family planning and contraception have had women as their respondents. This could be attributed probably to lack of data on male knowledge attitude and practice towards contraception. Although men do not directly use emergency contraceptives, they do so indirectly, once their partners use them. Additionally, the focus of this paper is emergency contraceptives which for all intent and purposes should be used as a one – off method instead of a regular method. EC may be the choice of the respondents in this study because they are young unmarried men and thus it is useful to explore their knowledge and attitude towards it.

According to Raselekoane et al., (2016), young men are particularly resistant to contraception because of the many myths surrounding it. However, male partners cannot be ruled out of the fight against unintended pregnancies and unsafe abortions. Sahin (2008) reiterated the importance of men's participation and their responsibilities in reproduction which have been debated in international conferences emphasising that reproductive and sexual health problems cannot be solved without men's participation and their support. Partnering with men is an important strategy for advancing reproductive health and rights (Sahin, 2008). The Guttmacher Institute understands this strategy and so as part of its recommendations to help reduce the incidence of unsafe abortion

in Ghana, recommended in 2013 that men should also be made aware of how their support can help their partners avoid unintended pregnancies and unsafe abortions. Men's knowledge, use and perceptions on contraception seem to have been relegated to the background in most studies. However, it has been established that increasing positive perception of modern methods of contraception is associated with higher male involvement in family planning (Sanusi et al., 2014).

Knowledge of Emergency Contraceptives

Some research has been done on knowledge of EC. A study at the University of Nairobi for instance showed that male students, who are mostly sexually active, do not have adequate knowledge of family planning and emergency contraception (Sahin, 2008). A similar observation has been made among South African students (Roberts et al., 2004). The situation in Ghana is not different (Osei – Tutu et al., 2018).

In Ghana, studies on knowledge on EC have been done by Baiden et al., (2002), Addo and Tagoe – Darko (2009) and Osei – Tutu et al., (2018), among others. The study by Baiden et al., (2002) among University of Ghana students indicated the sources of students' knowledge about EC. The study had 43.2% of the participants claiming to have knowledge about modern emergency contraceptive methods. Fifty – one per cent of the participants had heard of them on the radio, while the rest had done so through health education materials, television and newspapers. Meanwhile, only 1.5% of the participants knew of Postinor – 2, a dedicated EC product introduced into the country by the Planned Parenthood Association of Ghana (PPAG). Only 11% of the participants correctly indicated the recommended time within which to take ECs. This led Baiden et al., (2002) to conclude that there was moderate level of knowledge of EC among students. However, knowledge of the correct time for taking ECs after unprotected sex was low and almost all the participants (97.4%) expressed their desire to know more about EC.

The study by Addo and Tagoe – Darko (2009) observed a considerable knowledge gap in the specifics of EC. This they attributed partly to the indication that students followed directives from friends rather than read instruction leaflets as about 20.7% of the students who had heard about EC thought it could be used before sexual intercourse. The study stated that approximately 50% of the students obtained information from the media, 25% from friends, and less than 15% from health workers. This is an indication that the source of information contributes to having accurate or inaccurate knowledge about EC. In the study by Osei – Tutu et al., (2018), 79.8% of students had knowledge of ECs and majority (78.7%) of them knew when it was appropriate to use it.

It is in the light of the findings of the studies above that this paper seeks to explore the extent of the knowledge of EC by male undergraduate students and if and how their knowledge tends to influence their attitude.

Attitude Towards Emergency Contraceptives

Attitude towards EC could be either positive or negative and could be measured by different variables. On EC being available over the counter, Vahratian et al., (2008) found that while about 60% were in agreement, 30% of their respondents felt that they should have it even before the need arose. It was therefore apparent that their respondents who were students saw unplanned and unwanted pregnancies as a serious problem for which reason they would recommend the use of emergency contraception when necessary.

In Ghana, students at Kwame Nkrumah University of Science and Technology (KNUST), according to Addo and Tagoe – Darko (2009), had positive attitudes toward EC as 72.9% of male and 75.2% of female students who knew about EC said they would recommend its use mainly for rape and following unprotected consensual sex. In furtherance of their approval of EC, a large majority of respondents called for the availability of EC services over the counter as well as in hospitals and family planning clinics. About 47% of the students called for the inclusion of EC information in orientation programmes and the provision of EC services on campus. Furthermore, students also called for a reproductive health centre on campus that would provide counselling and EC services. This is an indication of the positive attitude these students had towards EC.

These studies enumerated, generally show a trend towards favorable attitudes towards EC. Furthermore, participants seemed to be in favor of EC when women were raped. However, there are several instances when women have not been raped and have become pregnant unintentionally. There is therefore the need for such issues to also be given some considerations.

Positive attitude towards EC have in some situations been linked to its knowledge. According to Miller (2011), students in U.S.A. believed that EC should be available without prescription and he believed this was a reflection of increased knowledge by students. In South Africa, although knowledge gaps have been identified, students had good intention towards EC (Roberts et al., 2004). About half of the participants responded that they would use or recommend EC to a friend if the need arose.

Males' negative attitudes towards contraception have been identified as one major reason for the persistence of unintended pregnancy and unsafe abortions. The South African Department of Health in 2003 found it extremely worrying that while 56.0% of South African women were using contraceptives most men, on the other hand were not using contraception (Department of Health, Medical Research Council, OrcMacro, 2007). This is believed to account for the high unintended pregnancy and abortion rates in South Africa (Ehlers, 2003; Mqhayi et al., 2004).

Although there is advocacy to promote equal rights of both males and females, the patriarchal system has made men's opinions dominant especially in the traditional

African setting. In this regard, males still have a higher say in the reproductive health issues of females. There have been instances where husbands or boyfriends have forced women against their will to stop using contraceptives, tore apart their clinic cards and even threw away their contraceptive pills (Raselekoane et al., 2016). Also, according to the latest GDHS (2014), men in Ghana are still of the opinion that women who use contraceptives are promiscuous and this can discourage women from using contraceptives (Ghana Statistical Service, 2015). These situations according to Baiden, et al., (2002) add impetus to the need to attract men into discussions on contraceptive choices; and that any programme to promote EC should consider targeting both sexes. Raselekoane et al., (2016) have called for radical health promotion and sexual and reproductive rights programmes which should specifically target male students. The knowledge and attitudes of male students who may already be heads of their households can influence the use of EC and thus impact on reducing the incidence of unintended pregnancies and unsafe abortions.

Although in this present study many of the respondents were not married, some might have been in some relationships and could be influencing their female partners. It is therefore worthwhile to explore the opinions of these young men who are neither married nor in any relation. Their opinions could be very useful since they may not be in stable relationships and thus might need one – off contraceptives such as EC and not regular ones. The findings will be relevant to the Careers and Counselling unit of the University of Ghana in promoting good reproductive health among students.

This study therefore seeks to achieve the following:

- a. Explore male students' knowledge of emergency contraception.
- b. Ascertain male students' attitude towards emergency contraception.
- c. Examine whether the characteristics and knowledge of male students influence their attitude towards emergency contraceptives.

Methods

This study used a positivist research paradigm. With this approach, the researcher concentrates on facts and considers the world to be external and objective. The researcher therefore maintained minimal interaction with the respondents during the data collection process. The survey approach was adopted and data was collected at one point in time that is, between August and September 2016.

This study took place in one of the universities in Ghana. Lecturers were contacted to grant permission to use a few minutes to the end of their lecture time for students to fill in the questionnaires. The questionnaires were distributed, and respondents were given some time to fill them immediately and they were collected. This was done to minimise

a situation where respondents would collect the questionnaires but not fill them. After the questionnaires had been completed, Research Assistants quickly went through to ensure that all applicable questions had been answered.

A total of 2,000 questionnaires were administered to undergraduate students in their second, third or fourth years in the four colleges (that is, Basic and Applied Sciences, Health Sciences, Humanities and Education) of the university. The first year students were not part of this study because they had not been admitted to the university as at the time of data collection. After cleaning and editing, a total of 1,869 students (giving a response rate of 93.5 per cent) made up of 941 males and 919 females and 9 respondents who did not state their sex responded to the questionnaires. The questionnaires were numbered serially and SPSS version 23 was used for data entry and analyses.

For this current study, the 941 male respondents were used. The questionnaire had five sections consisting of the following: demographic characteristics, reproductive history, knowledge of EC, attitude towards EC and use of EC. It was made up of both closed – ended and open – ended questions.

Ethical clearance was obtained from the Ethics Committee of the College of Humanities of the University of Ghana. The ethical issues related to the study were addressed by maintaining a high level of confidentiality and anonymity of the information volunteered by the respondents.

Results

Background of respondents

In order to have a better perspective of male students' attitude towards emergency contraceptives, their background characteristics have been presented in Table 1. The respondents were fairly young as majority (75.2%) of them were between 20 – 24 years with less than 2% being at most 30 years. This has been found to be the age group most likely at risk of unplanned pregnancy following from unprotected sexual intercourse (Arowojolu and Adekunle, 2000). In terms of religious background, majority stated that they were Christians. Of these, most of them belonged to 'other Christian' most likely Pentecostals. There were a few Moslems (5.3%) and a few (1.4%) who did not have any religious affiliation.

Due to the relatively young ages of the respondents, it is not surprising that as many as 90% had never been married. Only 1.3% were married (that is, married or living together). However, 7.5% were married but not staying together. The rest (1.2%) had been married in the past but were divorced, separated or widowed at the time of the survey. The respondents in this study consisted of undergraduate students who were in their second, third or fourth years and the distribution was fairly balanced with the respondents in their fourth year which is also their final year being slightly more.

The University of Ghana operates under the collegiate system. There are four colleges within the university and students were sampled from all the four colleges. Nearly 40% of the respondents belonged to the College of Basic and Applied Sciences with less than 10% from the College of Health Sciences. The College of Health Sciences usually has fewer students than the rest of the other colleges. Students were asked about their sexual activities. They were asked whether they had ever had sex and for those who responded in the affirmative, whether they had sex in the past four weeks and again for those who responded in the affirmative, whether they had unprotected sex. Almost 40% stated that they had ever had sexual intercourse. Of these, about 44% had recently had sexual encounters that is, four weeks before the survey. It is worth noting that about 70% of those who responded to having had sex in the recent past had had unprotected sexual intercourse.

Table 1: Characteristics of the respondents

Characteristics	Frequency	Percentage
Age (Years)		
Less than 20	142	16.0
20 – 24	666	75.2
25 – 29	61	6.9
30 – 34	15	1.7
35+	2	0.2
	886	100.0
Religion		
Catholic	115	12.4
Orthodox	249	26.8
Other Christian	495	53.3
Moslem	49	5.3
Traditionalist	8	0.8
No Religion	13	1.4
	929	100.0
Marital Status		
Never Married	833	90.0
Married	12	1.3
Divorced	4	0.4
Not Living Together	69	7.5
Separated	3	0.3
Widowed	5	0.5
	926	100.0
Years at University		
Two	297	31.7
Three	276	29.4
Four	365	38.9
	938	100.0

College		
Basic and Applied Science	371	39.7
Education	223	23.7
Health Sciences	91	9.7
Humanities	253	26.9
	938	100.0
Ever Had Sex		
Yes	345	39.7
No	523	60.3
	868	100.0
Sex in the past four weeks		
Yes	145	43.5
No	188	56.5
	333	100.0
Unprotected sex		
Yes	106	70.7
No	44	29.3
	150	100.0

Note: The sample sizes differ because not all the respondents answered all the questions

Source: Computed from emergency contraceptive survey, 2016

Attitude Towards Emergency Contraceptives

In order to measure attitude, four questions that respondents were asked were used. The four questions are presented in Table 2.

Table 2: *Questions indicating positive and negative attitudes towards emergency Contraceptives*

QUESTION	Positive Attitude	Negative Attitude
Would you recommend EC to a relative or friend?	Yes	No
Do you think the use of EC can encourage promiscuity?	No	Yes
Do you think the use of EC discourages the use of regular contraceptives?	No	Yes
Do you think EC should be made available to anyone who wants to use them?	Yes	No

Source: Emergency contraceptive survey, 2016

A student was classified as having positive attitude towards EC if his response followed the column “positive attitude”. Similarly, if the responses followed the pattern under the column “Negative response” he was classified as having negative attitude. The third category of students referred to as having mixed attitude were those who responded to these questions but their responses were a combination of the two columns. By using the categorisation in Table 2, the results obtained are presented in Table 3.

Table 3: *Attitude of respondents towards emergency contraceptives*

Type of attitude	Frequency	Percentage
Mixed	425	81.8
Favorable	34	6.5
Unfavorable	61	11.7
Total	520	100.0

Source: Computed from emergency contraceptive survey, 2016

Table 3 clearly shows that an overwhelming majority of respondents (81.8%) had mixed attitude towards EC. This means that their attitude towards EC was not clear cut, in that they had both favorable and unfavorable attitudes depending on the issue under consideration. For the remaining respondents, there were twice as many with unfavorable as those with favorable attitudes (11.7% and 6.5% respectively) towards EC.

The Relationship between Knowledge of Emergency Contraceptives and Attitude Towards Emergency Contraceptives

This study investigated the relationship between knowledge and attitude towards EC to find out if attitude towards EC is affected by knowledge of EC. To do this, a cross tabulation of “knowledge” was done by the three categories of attitudes towards EC and the results are presented in Table 4. For “Knowledge”, four variables were used. They were as follows:

1. Whether EC prevents pregnancy
2. First time they heard about EC
3. Knows where EC can be obtained from
4. Knows the appropriate time to use EC

Table 4: *Percentage distribution of respondents by attitude towards emergency contraceptives and knowledge of emergency contraceptives*

Knowledge of EC	Mixed	Favorable	Unfavorable	Frequency	Percentage
EC prevents pregnancy					
True	82.1	6.5	11.4	474	100.0
False	72.7	9.1	18.2	22	100.0
First time heard about EC					
Less than 6 months	74.0	7.2	18.8	69	100.0
6 – 11 months	75.0	5.0	20.0	40	100.0
1 – 5 years ago	84.5	5.7	9.8	122	100.0
More than 5 years ago	82.7	9.1	8.2	110	100.0
Knows where EC can be obtained					
Yes	81.3	7.3	11.4	437	100.0
No	83.6	2.7	13.7	73	100.0
Knows appropriate time to use EC					
Accurate	82.0	6.7	11.3	284	100.0
Inaccurate	81.2	9.0	9.8	122	100.0

Source: Computed from emergency contraceptive survey, 2016

With regards to whether EC prevents pregnancy or not, a relatively higher percentage of respondents who agreed that EC prevents pregnancy had mixed attitudes (82.1%) compared to those who disagreed (72.7%). Thus, fewer of the former had favorable attitude (6.5%) compared to the later (9.1%).

With respect to how long ago respondents first heard about EC, the responses to this question ranged from less than 6 months to more than five years before the survey. There were relatively more respondents with mixed attitude towards EC among respondents who heard about EC between a year and five years ago (84.5%) compared with other respondents. Also, there were fewer respondents (8.2%) with unfavorable attitude among those who first heard about EC more than five years ago compared to other respondents.

Concerning where EC could be obtained from, there were two categories of respondents: those who knew where to obtain them from and those who did not know. Table 4 shows that between the two categories of respondents, there were more of the latter with mixed attitude than the former (83.6% and 81.3%) Furthermore, there were more respondents with unfavorable attitude towards EC among respondents who did not know where to obtain EC from (13.7%) compared with respondents who knew where to obtain EC from (11.4%).

Respondents were asked how long after unprotected sexual intercourse EC should be used. Their responses were categorised into two, that is, those who provided correct answers and those who did not. All respondents who stated “up to 72 hours after unprotected sexual intercourse” as well as “up to 120 hours after unprotected sexual intercourse” were deemed to have provided accurate responses. All other responses were categorised as inaccurate. Between these two categories of respondents, there were relatively more respondents with mixed (82.0%) and unfavorable attitude (11.3%) among those with accurate knowledge of when to use EC compared with those with inaccurate knowledge (81.2% and 9.8 % respectively for mixed and unfavorable attitude towards EC).

Multivariate Analyses

To explore more deeply the relationship between respondents’ attitude towards EC and their characteristics, three separate multinomial logistic regression models were run. The variables used were as follows:

- The dependent variable was attitude which had three categories namely favorable, unfavorable and mixed. Unfavorable was used as the reference category. This was maintained for all the three models.
- The independent variables were the characteristics of the respondents
 - Age was grouped as follows: Less than 20 years, 20 – 24 years, 25 – 29 years and 30 years+,
 - Marital status was made a dichotomous variable: ever married and never married,
 - Years in school: second, third and fourth years and

College of respondent: This was maintained as was obtained from the data collected: Basic and Applied Sciences, Education, Health Sciences and Humanities.

These variables were used in the first model (Model 1 in Table 5). In model two, the multinomial logistic regression was run with the knowledge of EC as the independent variable. Knowledge was defined as follows: stating whether EC prevents pregnancy or not and knowing the appropriate time to use EC. EC prevents pregnancy had two response categories: true and false. Respondents' knowledge of correct use of EC was a dichotomous variable: accurate and inaccurate.

The final regression (model three) was run with a combination of all the independent variables used in models one and two that is, characteristics of respondents and respondents knowledge of the appropriate time to use EC. For each of the models presented in Table 5, comparison was first made between mixed attitude and unfavorable attitude and then favorable attitude was compared to unfavorable attitude.

Table 5: *Results of multinomial logistic regression*

Model 1			Model 2			Model 3		
MIXED	β	Sig	MIXED	β	Sig	MIXED	β	Sig
Age			Prevents			Age		
Less than 20	0.554	0.602	Pregnancy			Less than 20	0.421	0.461
20 – 24	0.513	0.534	True	2.054	0.058	20 – 24	0.609	0.649
25 – 29	2.659	0.503	False	RC		25 – 29	2.467	0.540
30+	RC					30+	RC	
Marital Status			Correct use			Marital Status		
Ever married	1.108	0.830	Accurate	0.742	0.437	Ever married	1.060	0.921
Never married	RC		Inaccurate	RC		Never married	RC	
Years at University						Years at University		
Two	1.569	0.260				Two	2.854	0.052
Three	1.546	0.202				Three	1.473	0.320
Four	RC					Four	RC	
College						College		
Basic and Applied Science	1.067	0.846				Basic and Applied Science	0.984	0.969
Education	2.089	0.135				Education	3.045	0.094
Health Sciences	1.261	0.609				Health Sciences	1.102	0.841
Humanities	RC					Humanities	RC	
						Prevents		
						Pregnancy		
						True	1.027	0.981
						False	RC	
						Correct use		
						Accurate	0.729	0.424
						Inaccurate	RC	

* $P < 0.05$ RC: Reference Category

Source: Computed from emergency contraceptive survey, 2016

Table 5 continued

Model 1			Model 2			Model 3		
MIXED	β	Sig	MIXED	β	Sig	MIXED	β	Sig
Age			Prevents Pregnancy			Age		
Less than 20	0.115	0.121	True	1.487	0.751	Less than 20	0.083	0.094
20 – 24	0.108	0.070	False	RC		20 – 24	0.137	0.113
25 – 29	1.820	0.709				25 – 29	1.081	0.963
30+	RC					30+	RC	
Marital Status			Correct use			Marital Status		
Ever married	3.103	0.213	Accurate	0.610	0.354	Ever married	1.996	0.490
Never married	RC		Inaccurate	RC		Never married	RC	
Years at University						Years at University		
Two	1.128	0.846				Two	1.820	0.426
Three	0.729	0.592				Three	0.679	0.554
Four	RC					Four	RC	
College						College		
Basic and Applied Science	1.168	0.806				Basic and Applied Science	1.321	0.719
Education	4.803	0.027*				Education	9.816	0.010*
Health Sciences	2.296	0.228				Health Sciences	2.760	0.181
Humanities	RC					Humanities	RC	
						Prevents Pregnancy		
						True	0.780	0.872
						False	RC	
						Correct use		
						Accurate	0.503	0.235
						Inaccurate	RC	

*P< 0.05 RC: Reference Category

Source: Computed from emergency contraceptive survey, 2016

The results show that in model one, a respondent being between the ages of 25 – 29 years was more likely (2.659) to have mixed attitude than unfavorable attitude towards EC than a respondent who was at least 30 years old. Those who were younger than 25 years were less likely than those who were at least 30 years to have mixed attitude than unfavorable attitude towards EC. Respondents who had ever been married were more likely (1.108) than those who had never been married to have mixed attitude than unfavorable attitude towards EC.

Having mixed attitude rather than unfavorable attitude was related to the year in which a student was. Students in the second or third years were more likely (1.569 and 1.546 respectively) than their counterparts in the fourth year (final year) to have mixed attitude than unfavorable attitude towards EC. Compared to their colleagues in the College of Humanities, respondents in other colleges (Basic and Applied Sciences, (1.067) Education (2.089) and Health Sciences (1.261) were more likely to have mixed rather than unfavorable attitude towards EC.

Comparing favorable attitude with unfavorable attitude towards EC, Table 5 shows that while respondents less than 25 years were less likely to have favorable than unfavorable attitude towards EC, compared to respondents who were at least 30 years, the reverse was the case for those who were between 25 and 29 years. Respondents' marital status influences their attitude towards EC. Respondents who had ever been married were more likely (3.103) than their never married counterparts to have favorable than unfavorable attitude towards EC.

While respondents who were in their second year were more likely (1.128) to have favorable than unfavorable attitude towards EC compared with respondents in their final year, for respondents in their third year it was the contrary (0.729). Respondents who belonged to the College of Basic and Applied Sciences, Education and Health Sciences were more likely to have favorable than unfavorable attitude towards EC than respondents who belonged to the College of Humanities. This relationship was significant ($P < 0.05$) among respondents who belonged to the College of Education who were four times more likely (4.803) than respondents in the Humanities to have this kind of relationship.

Model two shows that respondents who agreed that EC prevents pregnancy were more likely (2.054) than their colleagues who did not agree that EC prevents pregnancy to have mixed attitude than unfavorable attitude towards EC. Respondents who could accurately state when it is appropriate to use EC were less likely (0.742) than those with inaccurate knowledge to have mixed attitude than unfavorable attitude towards EC. While respondents who stated that EC prevents pregnancy were more likely (1.487) than those who stated otherwise to have favorable attitude than unfavorable attitude towards EC, respondents with accurate knowledge on the use of EC were less likely (0.610) than those with inaccurate knowledge to have favorable than unfavorable attitude towards EC.

The third model in which the characteristics and knowledge of EC of respondents were the independent variables did not really change the relationships observed earlier (models one and two) with the exception of two instances. While in model one respondents in Basic and Applied Sciences were more likely (1.067) than respondents in the College of Humanities to have mixed than unfavorable attitude towards EC in model three, respondents in Basic and Applied Sciences were less likely (0.984) than respondents in the College of Humanities to have mixed attitude than unfavorable attitude towards EC.

In the second instance, students who belonged to the College of Education were significantly ($P < 0.05$) more likely (9.816) than their colleagues in the College of Humanities to have favorable than unfavorable attitude towards EC. The difference here is the magnitude of this relationship. In model one, respondents who belonged to the College of Education were almost five times more likely than respondents in the College of Humanities to have mixed attitude than unfavorable attitude towards EC. In model three, respondents in the College of Education were nearly 10 times (9.816) more likely than respondents in the College of Humanities to have mixed than unfavorable attitude towards EC.

Another change that was observed was between models two and three comparing favorable attitude to unfavorable attitude for the variable EC prevents pregnancy. In model two while respondents who stated that EC prevents pregnancy were more likely (1.487) than those who stated otherwise to have favorable than unfavorable attitude towards EC, in model three, respondents who stated that EC prevents pregnancy were less likely (0.780) than those who stated otherwise to have favorable than unfavorable attitude towards EC.

Discussion

Most respondents in this study had never been married and even for those who were married, a large proportion did not live together. This implies that they may not need regular contraceptives. In addition, 70% had had unprotected sex in the recent past. This is inspite of the fact that a slightly higher percentage (72.2%) of respondents who responded to the question "Have you ever heard of emergency contraceptives?" responded in the affirmative. This is very typical of KAP studies done elsewhere (Srivastava, (2005); Renjhen and Pattanshetty, (2010)).

This calls for the adoption of EC to prevent any unintended pregnancies that might occur and this could be attained through peer mentoring (Benjamin and Rojas, 2018). This is because students may be more likely to listen to their peers than any other means of communication. Additionally, the findings of this study apply to the wider context of peer education, which is a strategy being used extensively by the Planned Parenthood

Association of Ghana (PPAG) and this strategy could be adopted by other stakeholders in reproductive health of young people in Ghana and beyond. Furthermore, with women now staying in school much longer than before, they are likely to delay childbearing which in turn could affect their fertility (Wusu and Adedokun, 2017). In order for them to achieve this, the support of males should be critical.

For respondents with accurate knowledge on when to use EC and who had mixed attitude towards EC, their responses confirm the gap between knowledge and attitude as stated by the KAP theory which is also similar to the study by Renjhen and Pattanshetty (2010).

It is worth noting that knowledge of the correct timing for the use of ECs may be beneficial. This is because wrong timing could lead to EC not being effective and create a reluctance to use any in the future (Arowojolu and Adekunle, 2000). This is therefore an opportunity to make use of the accurate knowledge of these respondents and address those issues creating the mixed attitudes.

The large majority of the respondents (more than 80%) with mixed attitude towards EC means that their attitude was a combination of positive and negative. This indecision on the part of young people has been referred to as ambivalence and it characterizes other aspects of their lives (Pinquart, 2010). This should be a cause of concern because, as suggested by Higgins et al., (2012) the ambivalence of men towards emergency contraceptives indicates that women should not remain the sole targets of pregnancy prevention programmes.

Probably, to get these respondents to change their attitude from mixed to positive, the issues that they have against EC such as "EC encourages promiscuity" needs to be addressed. These sentiments raised by the respondents are not peculiar to them as similar observations have been made elsewhere also in Ghana (Mohammed, Abdulai and Iddrisu, 2019).

Results from this current study show that irrespective of their knowledge of EC, respondents were more likely to have mixed attitude than favorable or unfavorable attitude towards EC. This implies that attitude towards EC is not necessarily affected by knowledge of EC. This finding disproves the KAP theory which states that knowledge influences attitude. It could be that some of these students have had some experiences which have affected them either positively or negatively (Tillapaugh, 2015).

In the multinomial logistic regression, very few relationships were significant. One such relationship was comparing students who had favorable attitude to those who had unfavorable attitude towards EC by college of respondent. The relationship was significant in the College of Education but not the other colleges. This observation is very important due to the fact that students in this college are expected to be educators who in the future would pass on what they learn to others. This being the case, it offers an opportunity for more information on family planning in general and EC in particular to be made available to these students since it is expected that in the long run, it will

have a ripple effect on other people which should be the aim of education (Blazer and Kraft, 2017).

To promote the use of EC (not as a regular method of contraception), this paper suggests that since young people are likely to receive information through social media more than the traditional media, innovative ways should be sought by those providing information and education through this channel which would be accessed in a relatively shorter time than other types of media.

Conclusion

Most studies on contraception in general and EC in particular have mainly targeted women probably because most contraceptives are used by women. However, this study focused on men and although majority of the respondents were not married, a substantial proportion indicated that they engage in unprotected sexual activities. This therefore means that attention should also be given to men when handling reproductive health issues. Although these men knew about EC, their attitude towards them was mainly mixed, an indication that there is a gap between knowledge and attitude which needs to be filled.

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Conflict of Interest

The author hereby declares that, there is no conflict of interest relating to this study, whether financial or commercial. I wish to also state that the paper has not been submitted elsewhere for consideration for publication.

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