

Assessment of the Knowledge, Attitudes and Practices of Emergency Contraception among Female Nursing Students at Nursing and Midwifery Training College, Nalerigu

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Abstract:- Contraception is the prevention of conception through the use of various devices, sexual practices, chemicals, drugs or surgical procedures. A descriptive Cross-sectional survey was designed to assess the knowledge, attitude and practices on emergency contraception among final year health students in the College of Nursing And Midwifery, Nalerigu in the North East Region of Ghana. A simple random sampling was used to select the first year 135 female RNAC nursing students for the study. Findings from the study showed majority of the respondents (64.4%) were students between the ages of 20-23 yrs., 19.3% (24-27 yrs.) and 13.3% (19 yrs.). The result further showed most of the respondents (96%) have knowledge/heard about emergency contraception with a few (4%) indicating they have no knowledge on emergency contraceptives. Regarding the sources for information on emergency contraceptives, some respondents (50%) indicated friends and relatives as the major source, while others (11%) said media programmes/advertisements. Out of the responses (n= 134), majority of the respondents (96%) chose Lydia pills and Postinor 2 as emergency contraceptives. A small number of the respondents (3%) said they don't know any emergency contraceptives while a respondent (1 %) chose Depo Provera, Lydia pills and Postinor 2. The findings of the study also showed respondents (35.6%) best time to take emergency contraception after unprotected sex was between 48 to 72 hours. 33.3% of the respondents said 12 to 24 hours after sex and others (17.8%) said 24 to 48 hours. Regarding respondents' views as to whether they will recommend the use of contraceptives to friends and relatives. Majority (80%) agreed they will recommend. Also, 56.3% do not feel comfortable going to the shop to buy emergency contraceptives, while 51.9% said contraceptives were safe for users. The finding from the study showed that the knowledge and attitude of the female students were higher than the practice/utilization. The District Health Directorate should therefore intensify education and awareness on the use of emergency contraceptives. Moreover, drug stores/pharmacy shops must improve their customer

care to minimize challenges and stigmatization of the users.

Keywords:- contraceptive, methods, health trainees, knowledge, and attitude.

I. INTRODUCTION

The use of emergency contraception offers the last chance and effective opportunity to avoid unintended pregnancies and induce abortions after unprotected sex (Dawson et al., 2015; Kwame et al., 2022). Contraceptive methods are used by most women coupled with unprotected sex to prevent unwanted pregnancies. Emergency contraception when taken within 5 days after sexual intercourse can prevent about 95% of pregnancies. The methods of emergency contraception include: emergency contraceptive pills and copper bearing intra-uterine devices (IUDs) (Nyarko, 2019; Tamire & Enqueselassie, 1950). None the less, emergency contraceptives do not cause abortions, but may interfere with ovulation period that may prevent pregnancy. Contraceptives such as; copper-containing IUD stops fertilization by altering the chemical composition of the sperm and egg before they come into contact. A confirmed pregnancy cannot be ended by emergency contraception, and an embryo in development cannot be harmed (Kamijo et al., 2021; Kwame et al., 2022). An estimate of 222 million women in most developing countries do not have access to adequate, efficient and effective methods of contraception. This resulted into over 33 million unexpected births, 20 million unsafe abortions, and 86 million unplanned pregnancies worldwide (Dawson et al., 2015). Studies have shown that low contraceptive usage and early involvement in sexual activity are some of the causes of unintended pregnancies and their related problems in Africa (Savage-Oyekunle, 2017; Yeboah et al., 2022). Global estimates revealed that 45% of all induced abortions from 2010-2014 were unsafe (Zhao et al., 2023). Unsafe abortion is a leading cause of maternal deaths and morbidities and contribute 4.7 – 13.2% of all maternal deaths globally. About 97% of all induced abortions occur in developing countries including Ghana (Albrecht & Steigmeier, 2022).

Ghana estimated about 1, 330,000 pregnancies each year between 2015 and 2019 out of which 741,000 pregnancies were unintended and 266, 000 resulted in abortion (Guttmacher, 2022). A study found the prevalence of unintended pregnancy among Ghanaian women as 40% among literates than women with no formal education (Nyarko, 2019). To avoid unintended pregnancies, the Ghana government through the Ministry of Health and its agencies have been championing improved and friendly family planning services in Ghana.

None the less, the knowledge of contraceptive methods is universal in Ghana among sexually active unmarried young women, are considerably low and inadequate (Oppong et al., 2021). Many young women and adolescents find it difficult to buy emergency contraceptives due to stigma. Female students in the health training institutions fall under the sexually active age group and thus have a high unmet family planning needs (GDHS, 2014). Few studies have been conducted on the knowledge, attitude, and use of Emergency Contraception among female health trainees in Ghana. It is against this justification that the study seeks to assess the knowledge, attitudes and practices of emergency contraception among female nursing students at Nursing and Midwifery Training College, Nalerigu.

II. METHODOLOGY

A. Introduction

This chapter looks at the different approaches used in this research. It concentrates on the research design and the sampling of respondents for the study. It also looks at the variables that were researched.

➤ Study setting

The data was collected at the Nursing and Midwifery Training College, Nalerigu. The college was established as Nurse Assistant Training School, Nalerigu in 2009. The college presently has 4 academic departments namely; Allied health, Registered Midwifery, Registered Nursing and Registered Nurse Assistant Clinical departments respectively. The college is located at Nalerigu, the regional capital of North-East region in the republic of Ghana.

➤ Study Design

A descriptive cross-sectional design was used for this study. Cross-sectional survey design was used to assess the knowledge, attitude and practices on emergency contraception among final year health students. The study design helped the researcher to collect data at a point in time for analysis without any follow-up. According to Gay and Airasian (2016), the descriptive cross-sectional survey looks at current challenges, dominant activities, perceptions and behaviors, including ongoing processes and evolving patterns. The cross-sectional form of survey design deals with concerns about what happens in a situation with regard to factors or circumstances (Jacobs et al., 2015). Fraenkel and Wallen (2016) characterize the design of descriptive surveys as a tool used by researchers to ask respondents questions about the existence of problems at a certain point in time. In this analysis, samples are chosen to represent the entire population and inferences made for the entire

population and occur in a few days to weeks. It is one of the most commonly used research methods in social sciences, as reported by Amin (2015), and it is used to collect data from a population sample at a point in time.

➤ Study Population

The study population were first year female students of the Registered Nursing Assistant Clinical Department (RNAC) of NMTC, Nalerigu. First year female students of the nursing and midwifery departments were excluded from the study. Also, all other female students of the various departments of NMTC, Nalerigu were excluded from the study.

➤ Sample size and Sampling frame

The sample size was obtained using Yamane's formula; $n = N/1 + N(e)^2$. The population size (N) was 200 with the level of precision (e) as 0.05 and a non-response rate of 5%, the sample size used for the survey was 135. Simple random sampling was used to select the first year female RNAC nursing students for the study. In this case, the researcher obtained the list of all female first year students from the RNAC department from the college's administration. Excel spreadsheet was used to generate randomly the index numbers of 135 students for the study. The students with the randomly obtained index numbers formed the sample size for the study.

➤ Research Instrument

A research instrument is a device, technique or a means by which data relevant to the study is collected (Krueger & Sokpe, 2006). A well-structured questionnaire consisting of 25 items were be used in the collection of the data. The questionnaire was divided into four sections including participants' socio-demographic, knowledge, attitude, and practices of emergency contraception. The tool included 2 open-ended and 23 close-ended items respectively. Although, a close-ended type of item has some limitations, it makes coding and analysis relatively simple and convenient. A few blank spaces were provided for responses which the researcher could not imagine. Care was taken to make the questions specific and precise.

➤ Pilot Study

In order to ensure that the questionnaire was void of ambiguous items that could make it difficult to elicit valid and reliable responses from respondents, the instrument was piloted at the Registered General Nursing Department, NMTC, Nalerigu because the students have similar characteristics with the students of the Registered Nurse Assistant Clinical Department. A total of 20 respondents was used in testing the instrument on 16th January, 2023. The pilot exercise helped in uncovering some hidden ambiguities and items that could have made it impossible to collect the right data for the appropriate conclusions and recommendation. A copy of the instrument has been attached to the work as Appendix A.

➤ *Validity and Reliability of the Instrument*

Validity is the extent to which an instrument measures what it is intended or supposed to measure (Krueger & Sokpe, 2006). The questionnaire helped in answering the research questions. Content validity was assessed basing the items of the research instrument on the content area of the research topic. The instrument was examined by the project supervisor because according to Amin (2005) content and construct validity is determined by expert judgment. Reliability of a measuring instrument is the extent or degree of consistency with which it measures whatever it is measuring (Krueger & Sokpe, 2006). To test for the reliability of the research instrument, the items was pre-tested at the Registered General Nursing Department, where the students has similar characteristics to the students at the RNAC department. This was done to identify the errors in the instrument.

➤ *Data Collection Procedure*

Data was collected using self-administered questionnaires which were administered to the respondents via whatsapp. Respondents were given adequate time to answer the questionnaire and they were assured of confidentiality. It was assumed that the respondents answered the questions in an open and honest manner. Data was collected from the 24th-31st January, 2023. All the students who fell within the selection criteria and were present during data collection were included in the study. In all, respondents were given adequate time to complete the questionnaire on their phones and submit same through the same medium.

➤ *Data Analysis Procedure*

Data was entered into Microsoft Excel 2020 version and imported to Statistical Product for Service Solution (SPSS) computer software package (version 19.0 for Microsoft Windows) for analysis. A descriptive analysis was

conducted on respondents’ socio-demographic characteristics, knowledge, attitude and practices of emergency contraception. Chi-square analysis was used to establish the relationship between knowledge and practice of emergency contraception as well as attitude and practice of emergency contraception respectively.

B. Ethical Considerations

Permission was obtained from the colleges’ research unit before data collection was done. Again the purpose and significance of the study was made known to the study participants to seek their consent. Names of participants were withheld to ensure confidentiality.

III. RESULTS AND DISCUSSION

A. Introduction

This chapter presents the results of the analysis of the data obtained on the knowledge, attitude and practices of student nurses on emergency contraception. The chapter is presented under the following headings: demographic characteristics of respondents, knowledge, attitude and practices of female nursing students towards emergency contraception.

B. Socio-Demographic Characteristics of Respondents

Table one below shows the socio-demographic characteristics of respondents in this study. From the results, it is evident that majority of the respondents (64.4%) are students between the ages of 20-23 years followed by 19.3% accounting for students between the ages of 24-27 and 13.3% for those less than 19 years. In addition, only 2.9% of the respondents were above 27 years. Furthermore, on the marital status of respondents, most of the respondents (87.4%) are single with about 68.1% of the respondents being Muslims.

Table 1: Socio-demographic characteristics of Respondents

Variable		Frequency (N=135)	Percent (%)
Age	16 to 19 years	18	13.3
	20 to 23 years	87	64.4
	24 to 27 years	26	19.3
	Above 27 years	4	2.9
Marital Status	Single	118	87.4
	Divorced	3	2.2
	Married	14	10.4
Religion	Christianity	43	31.8
	Islam	92	68.1

Source: Field Survey, (2023)

C. Knowledge on Emergency Contraceptives and Sources of Information

The figures 1&2 below present respondents’ views on the knowledge or having heard of emergency contraceptives and the sources of information. Findings showed that; most of the respondents (96%) have knowledge/heard about

emergency contraception with a few (4%) indicating they have not had knowledge/heard about emergency contraceptives. This is consistent by study conducted by Mishore, Woldemariam & Huluka (2019) which revealed 93.5% of its study respondents had knowledge about emergency contraception. Regarding the sources of

information for emergency contraceptives, most study respondents (50%) indicated they have heard about emergency contraceptives from their friends and relatives, while others(11%) said from media programmes/advertisements. This may be as a result of inadequate health outreach programmes or family planning services in the area. The results on sources of information was contrary to a study conducted in a Semi-Urban Settlement in Cameroon which indicated respondents (41.8%) got their knowledge of emergency contraceptives

from health workers (Alsharif et al., 2023). Also, Mishore *etal* (2019) in Ethiopia in their studyrevealed sources of information on emergency contraceptives were college students (40.5%), health workers (29%) and mass media (24.5%) respectively. A few of the respondents indicated their source of information on emergency contraceptives as **teaching** (5%) and hospitals/clinics (2%) respectively Most studies have posited that peers/ friends are usually the most common source of contraceptive knowledge (Akani et al., 2008; Dejene et al., 2010).

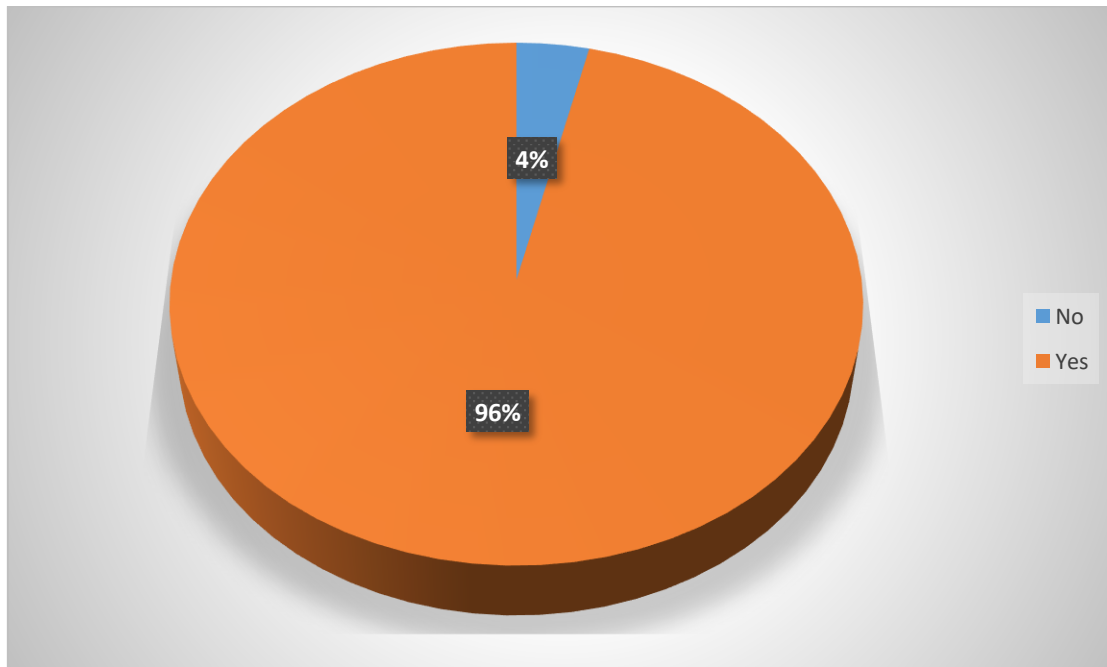


Fig. 1: Knowledge/Ever heard of emergency contraception (Field Survey, 2023)

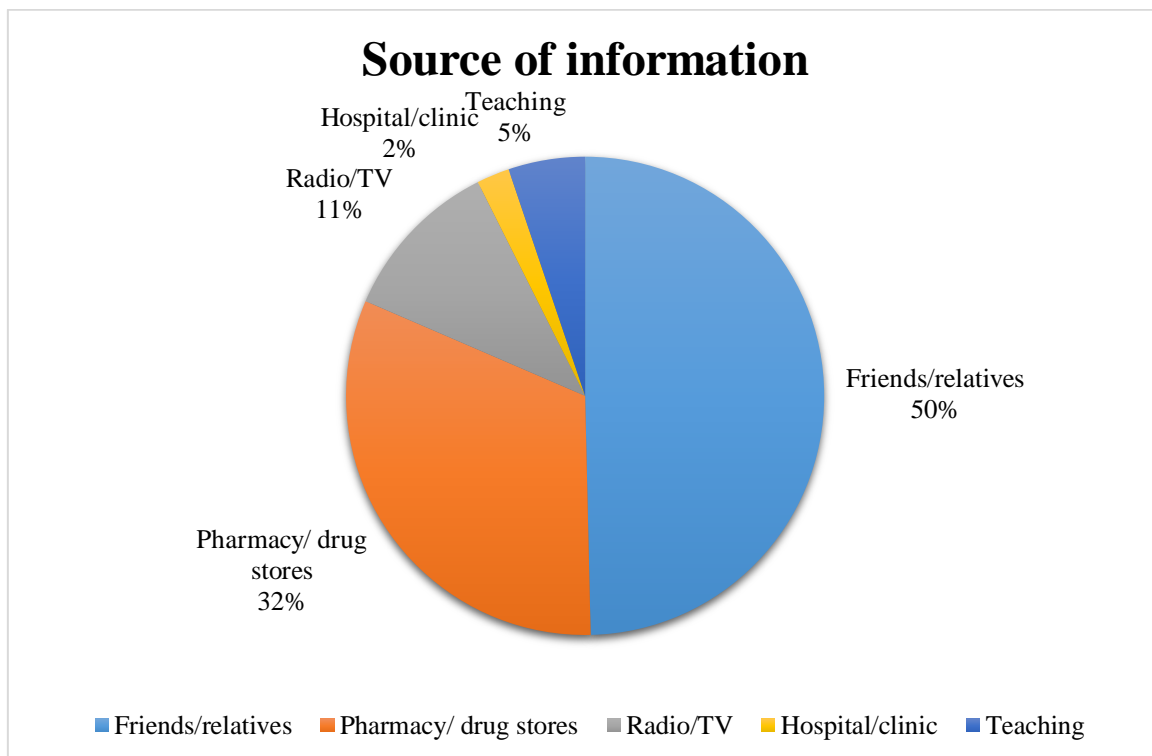


Fig. 2: Source of Information on Emergency Contraceptives (field survey, 2023)

D. Forms of Emergency Contraceptives

Figure 3 depicts results on the forms of emergency contraceptives respondents use. Findings revealed that, more than half of the respondents (51.8%) were aware of pills only as the only form of emergency oral contraceptive. This

was followed by 41.5% of the respondents who were aware of both pills and intrauterine devices (IUD). They were of the view that, pills are readily available and do not cost as may compare to other contraceptives.

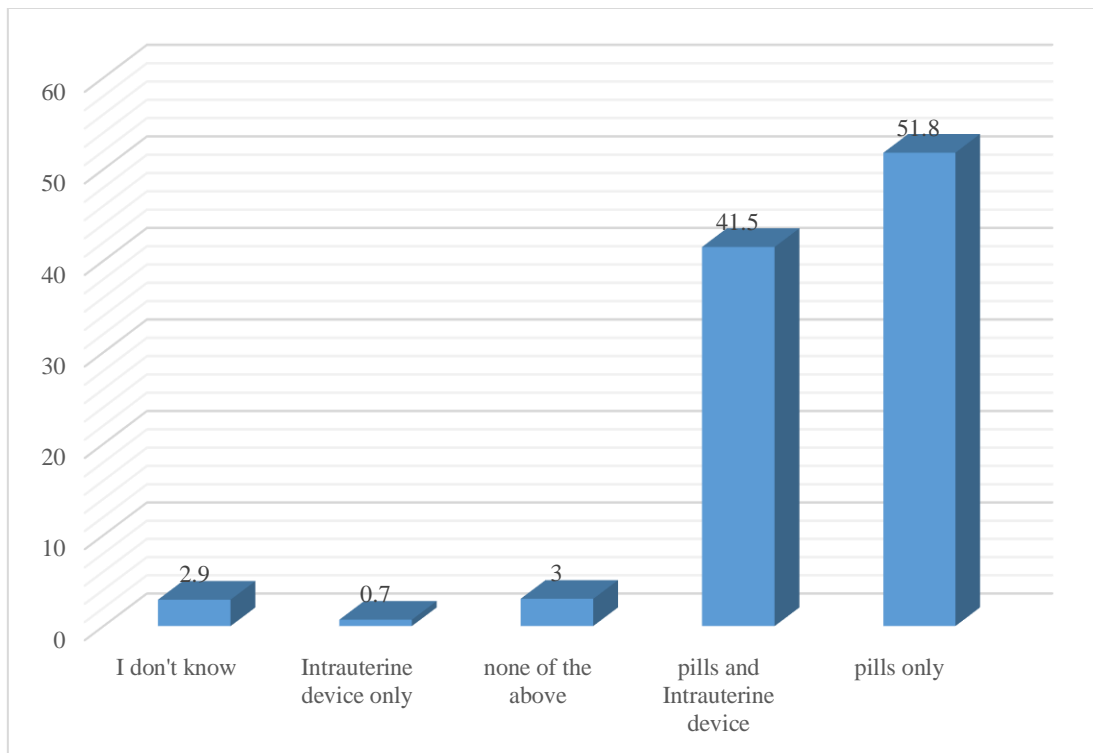


Fig. 3: Forms of emergency contraceptive (Field Survey, 2023)

E. Indications of Emergency Contraceptives

Regarding indications for oral contraceptives as seen in figure 4, the study revealed most of the respondents (97%)

were of the view that, emergency contraceptives is solely used to prevent pregnancy after unprotected sex during unsafe period.

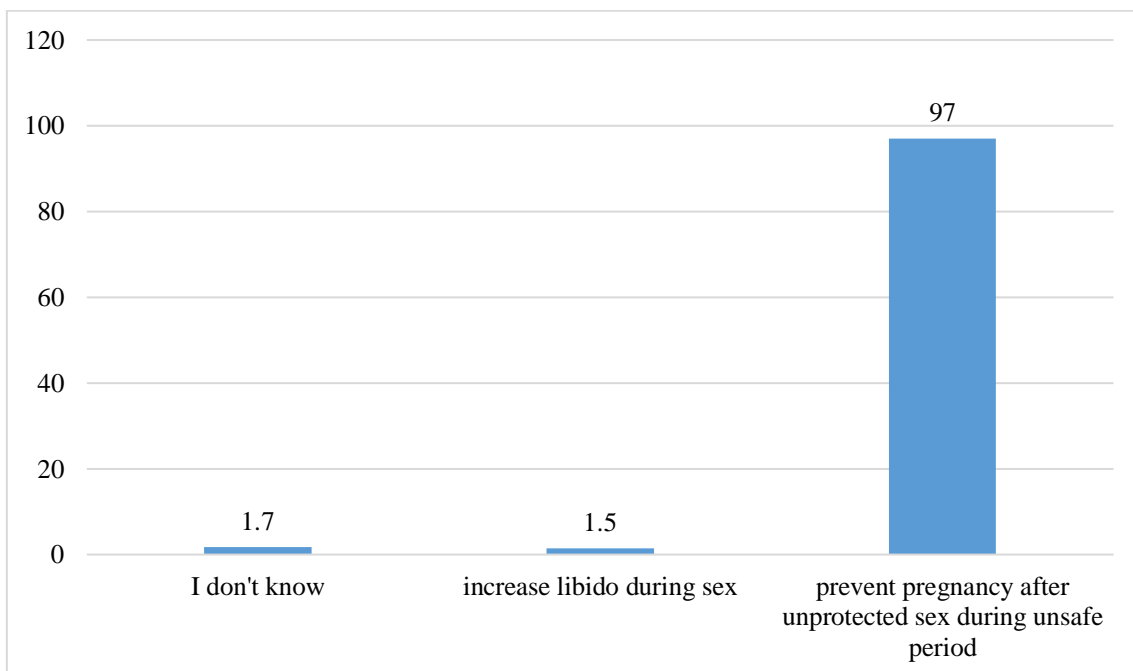


Fig. 4: Use of emergency contraceptives (Field Survey, 2023)

F. Maximum Time after Sex to take Emergency Contraception

Regarding the maximum time emergency contraceptives can be taken after unprotected sex showed most of the study respondents (35.6%) indicated the best time to take emergency contraception after unprotected sex was between

48 to 72 hours. Some of the respondents (33.3%) said the maximum time to take emergency contraceptives was 12 to 24 hours after sex. A few others (17.8%) were of the view that, the maximum time to take emergency contraceptives after sex was 24 to 48 hours as shown in figure 5 below.

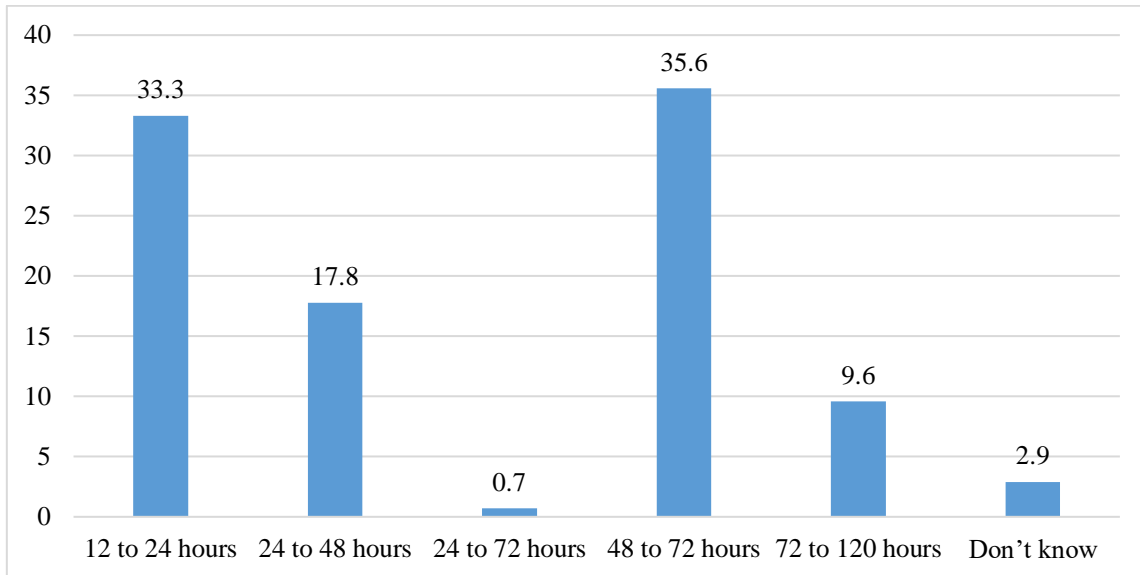


Fig. 5: Maximum time to take emergency contraceptives (Field survey, 2023)

G. Emergency Contraceptive drugs

Figure 6 below depicts some common emergency contraceptives on the Ghanaian market. Out of the responses (n= 134), majority of the respondents (96%) chose Lydia pills and Postinor 2 as emergency contraceptives. A small number of the respondents (3%) said they don't know any emergency contraceptives while a respondent (1 %) chose

Depo Provera, Lydia pills and Postinor 2 as emergency contraceptives. The study findings was not in line with a study that showed most commonly used contraceptive method as pills (56.4%) followed by depot Provera (23.1%) and condom (10.2%) (Refaat et al., 2023). This may be as a result of socio demographic patterns or the availability of emergency contraception services in the area.

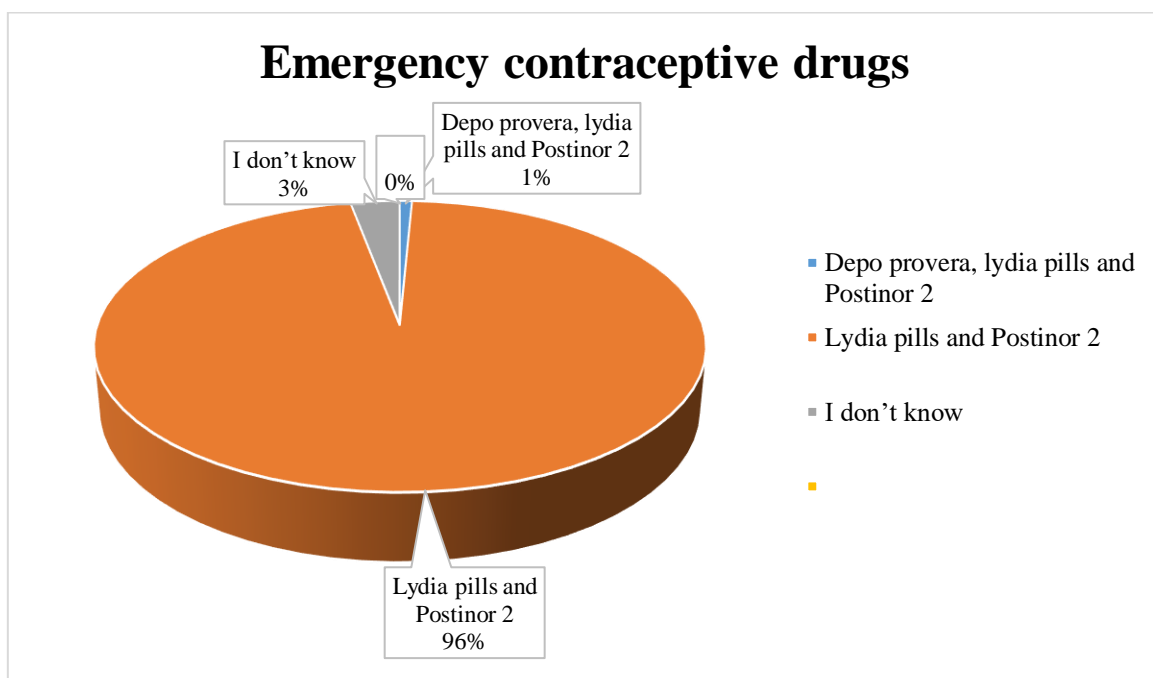


Fig. 6: Emergency contraceptives
Source: Field work, 2023

H. Recommended Source on the Knowledge and Emergency Contraceptive use.

The study also sought from respondents the knowledge on the use of emergency contraceptives. The findings revealed that; majority of the respondents (59.2%) have ever used emergency contraceptive. This study was in line with a study which indicated respondents (53.3%) general knowledge level on emergency contraceptive (Kara et al., 2019). Even though other studies reported as high as 95.5% of the adolescent school girl having heard about emergency contraceptives (Alsharif et al., 2023; Kara et al., 2019; Tesfaye et al., 2022). Also, regarding the frequency of respondents' usage of emergency contraceptive, most respondents (42.0%) said they have used emergency contraceptives twice in a year. Other respondents indicated they have used emergency contraceptives once and more than two occasions in a year as 35.8% and 22.2% respectively. Furthermore, 86% of the study respondents said they use emergency contraceptives to prevent unwanted

pregnancies while a few others (16%) indicated their aim of use was to prevent STI's. this study was almost in line with a study that reported nearly 93.2% of those on contraception reported prevention of unplanned pregnancy as their reasons (Kara et al., 2019).

Respondents' views on the sources on recommendation for emergency contraceptives use showed majority of the respondents (58.1%) had recommendation from health personnel. Others to conclude their sources of recommendation as family/friends (18.6%), partners (13.2%) and media (7.8%) respectively. Majority (60%) of the respondents indicated they do not face challenges in getting emergency contraceptives, while some others (40%) indicated they had challenges as shown in table 2 below. This may be as a result inadequate pharmacies/ drug stores in the area. Also, the respondents indicated their shy nature to either go to the health personnel .or the drug store to buy emergency contraceptives.

Table 2: Knowledge and Emergency Contraceptive use

Variable	Response	Percent (%)
1. Do you use emergency contraceptives	Yes	59.2
	No	40.8
2. How often do use of emergency contraceptives	Once a year	35.8
	Twice a year	42
	More than two times	22.2
3. What do you use emergency contraceptive pills for	Prevent unwanted pregnancy	86
	Prevent STI's	14
4. Where did you get the knowledge of emergency contraceptive use	Health professionals	58.1
	Family and friends	18.6
	Partners	13.2
	Radio/TV station	7.8
	No one	2.4
5. Do you face challenges in getting emergency contraceptives	Yes	60
	No	40

I. Attitude towards Emergency Contraception

Table 2 indicates the ratings of respondents' attitude towards emergency contraceptives using a Likert scale. With SD = Strongly Disagree, D = Disagree, N = Neutral, A = Agree and SA = Strongly Agree. The results showed that; majority of the respondents (45.9 + 38.5 = 84.4%) agreed to use emergency contraceptives if they have unprotected sex in their unsafe period. Also, majority of the respondents (56.3 + 23.7 = 80%) would recommend emergency

contraceptives to their friends and relatives. Furthermore, majority of the respondents (49.6 + 6.7 = 56.3%) do not feel comfortable going to the shop to buy emergency contraceptives. On whether emergency contraceptives are safe for its users, majority of the respondents (23 + 28.9 = 51.9%) agrees that it is safe for its users. Finally, majority of the respondents (37.8 + 11.9 = 49.7%) likes emergency contraceptives.

Table 3: Attitudes towards emergency contraception

Variable	SD	D	N	A	SA
I would use emergency contraceptives if I have unprotected sex in my unsafe period	5.9	2.2	3	45.9	38.5
I would recommend emergency contraceptives to a friend/relative	2.2	8.1	6.7	56.3	23.7
I don't feel comfortable going to the shop to buy emergency contraceptives	14.8	19.3	5.9	49.6	6.7
Emergency contraceptives are safe for its users	4.2	4.6	39.3	23	28.9
I like emergency contraceptives	7.4	28.1	14.8	37.8	11.9

IV. CONCLUSION

The finding from the study showed that the knowledge and attitude of the female students are higher than the practice/utilization. Majority of the females have heard about emergency contraceptives but most of them heard from the wrong sources such as friends/relatives and partners. Therefore, comprehensive family planning education should be carried out to impart the right knowledge to the students. Again, there should be more education on the safety of emergency contraceptives to improve attitude and utilization as the study showed that a little over half of the respondents indicated emergency contraceptives were safe for its users. Lastly, the District Health Directorate should intensify education and awareness on the use of emergency contraceptives.

V. RECOMMENDATION

Although, the study found most female students had good knowledge on emergency contraceptives, more education on the subject matter will be necessary to improve students' level of knowledge. Also, institutional health services such as college clinics and hospitals should provide friendly and professional reproductive health service to students especially females to minimize challenges associated with accessing emergency contraceptives. Attendants of drug stores/pharmacy shops should undergo periodic workshops on good customer care and family planning especially the pills to provide a good atmosphere for females to purchase the pills and also give the right education to their customers on emergency contraceptives. Policy makers such as the ministry of health and the college management should make family planning a compulsory course for all first year students to impart the right professional knowledge that will inform attitude and utilization of emergency contraceptives.

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CONFLICT OF INTEREST

The authors declare that there is no conflict of interest

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