***Original Research Article***

**ATTITUDES TOWARDS UTILIZATION OF EMERGENCY CONTRACEPTIVES AMONG FEMALE UNDERGRADUATE STUDENTS, UNIVERSITY OF KABIANGA, KENYA**

**.**

Abstract

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| --- |
| **Background:****Emergency contraceptive (EC) provide an important chance to prevent unplanned pregnancy after a regular method fails, no method was used, or when sex was forced.****The world health organization recommends the use of contraceptive pills, like progesterone preparations (levonorgestrel) and post-coital intra- uterine device (IUCD) insertion as EC. Unintended pregnancies amongst students at higher education institutions impact students’ academic success.** **Objective:****This study sought to determine the attitude and practice on emergency contraceptives among female undergraduate students at university of Kabianga, Kenya.** **Methods:****A descriptive cross-sectional study was used. Stratified random sampling was applied to determine the selected sample. The students were stratified according to the year of study, each year of study formed strata. A sample proportionate to the study year and campus was picked. Data was obtained by self-administered questionnaires. Bivariate analysis was applied to establish the test of association between demographic factors and attitude on emergency contraceptives use of chi-square test at 5% significance level. In multivariate analysis the independent variable of attitude on emergency contraceptive were obtained using logistic regressions.****Results:****The results for the logistic regression analysis indicated that a unit increase in age would lead to a unit decrease in attitude. The p-values revealed that age (p=0.741, or=0.930), year of study (p=0.908, or=1.024), religion (p=0.383, or=0.753), marital status (p=0.746, or=0.943) and place of residence (p=0.928, or=0.970) were not significantly associated with attitude. This implies that age, year of study, religion, marital status and place of residence do not influence attitude on emergency contraceptive utilization.****Conclusion.****Majority of the respondents had a favorable attitude (71.4%) towards emergency contraceptives.** **A number of them (58.4%) pointed out that they would use EC in case of an emergency. Of those who had ever heard of emergency contraception, 63.6% reported favorable attitudes toward emergency contraception.** |

*Keywords: Attitudes, Emergency contraceptives and Female Undergraduate students, Utilization.*

1. Introduction

**“Currently, many young people especially college students engage in sexual activity before marriage often without using contraception resulting in unintended pregnancies in many countries” (1).**

**“Despite the value of emergency contraceptives in reducing unintended pregnancy, research suggests that it may be underutilized. Emergency contraceptives may avert 60% to 80% of pregnancies that are unintended in women aged 18 to 24, it may also provide an alternative to the non-use of contraception or an option for those who use withdrawal as a method of birth control” (2)**

**“Every year, unplanned pregnancies lead to at least 50 million abortions worldwide and result in approximately 80 000 maternal deaths.4 Around 25 million unsafe abortions take place each year, almost all in developing countries, and the risk of dying is highest in Africa” (3)**

**World Health Organization (WHO) estimates that every year, nearly 5.5 million African women have unsafe abortions. Moreover, 59% of all unsafe abortions in Africa are among young women aged 15-24 years (4)**

**“Several studies revealed that the practice of emergency contraceptive is different from one country to another. The practice of emergency contraceptives was (28%) among South African university students, (7.4%) in Cameroon and (5.4%) in Nigeria” (5).**

**“In Kenya, the use of modern contraceptive methods has increased over the last decade from 32 percent as per 2003 KDHS to 53 percent in 2014, however, the use of emergency contraceptive which is one of the modern contraceptives remains low among the youths” (6).**

**Studies conducted in Kenyan universities focused mainly on knowledge, attitude and perception of female students on general contraceptives and little emphasis on emergency contraceptives yet it offers women the last chance when the latter has failed. Therefore, the aim of this study was to assess the attitude, and practice of emergency contraception among female students’ university of Kabianga.**

**Specific objectives of the study**

1. **To assess the attitudes of female undergraduate students towards Emergency contraceptives at university of Kabianga,**
2. **To assess the utilization of emergency contraceptives among female undergraduate students towards emergency contraceptives at university of Kabianga**

**Research questions**

1. **What are the attitudes of female undergraduate students on emergency contraceptives?**
2. **What is the practice of emergency contraceptives among female undergraduate students**

**2 Materials and Methods.**

**2.1 study settings.**

**The study was carried out at university of Kabianga which is a public university in Kenya and is situated at Kericho west district, Kericho county in the southern end of the Rift Valley region of Kenya. It is situated about 26 km from Kericho town and 6 km off the main Kericho - Kisii road.**

 **Study population**

**The population of female students at university of Kabianga stood at 3803 from all the four campuses namely main campus, Kapkatet, sotik and town campuses as per 2019 admissions records.**

 **Inclusion criteria.**

**Undergraduate female students.**

**Exclusion criteria.**

**Students from the school of health sciences at Kapkatet campus were excluded from the study as they could have prior information by the virtue of their training. Students who did not consent to the study were excluded.**

**Study design and data collection.**

**Cross sectional design study was carried out in April 2019 among female students from main campus and campuses. The sample size was reached at using Fischer et al (1998) and the proportion of undergraduate students utilizing emergency contraceptives at 11.9% (6). But since the target population was less than 10000 the required sample size was adjusted using the formula.**

**nf = Nn**

 **N+(n-1).**

**Where.**

**nf=the desired sample size (when the population is less than 10000).**

**n=the desired sample size (when the population is more than 10000) =161.**

**N=the estimate of population size=3553 after excluding 250 female students from school of health sciences.**

**3553\*161/ (3553+(161-1) =154**

**Therefore, a sample of 154 students was adopted**. **Stratified random sampling was then applied to select students from the three campuses. The students were stratified as per the year of study. The admissions office provided the number of students in each year and from which a sample proportionate to the study year and campus was chosen. (Table 1). Simple random sampling was subsequently applied to each strata in their respective campuses by way of picking of YES or NO folded papers at the lecture hall after end of lectures. Questionnaires were self-administered. Questionnaires were used to elicit responses on attitude towards emergency contraceptives.**

**Table.1 study sample frame**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Year**  | **Sample size** | **Main campus** | **Sotik campus** | **Town campus** |
| **Fourth** | **39** | **35** | **1** | **3** |
| **Third** | **47** | **40** | **1** | **3** |
| **Second** | **42** | **37** | **1** | **4** |
| **First** | **26** | **19** | **2** | **6** |
| **TOTAL** | **154** | **131** | **5** | **16** |

* 1. **Data processing and analysis**

**Questionnaires were comprehensively checked by the researcher for quality and clarity of responses daily.**

**The summary index of attitude was determined using the four indicators of EC. Two positive and two negative indicators were used to strike a balance between the responses. The indicators were categorized as yes or no. Those who selected yes for the positive indicators were considered as having favorable attitude and those who selected no were considered as having unfavorable attitude. Those who selected yes for the negative indicators were considered as having unfavorable attitude and those who selected no were considered as having favorable attitude. The responses on each attitudinal items were scored, tallied, and then the total of each respondent score was made to range between 0-4 (0-100%). A score of 50% and above was considered as “favorable attitude” whereas those scored below 50% of the total were thought of as having “unfavorable attitude”. (7)**

 **Data was then entered into SPSS version 16.0 windows for statistical analysis. The data entered into epi info was stripped of their identifiers to ensure confidentiality of the subject data. The database was encrypted and password kept by the investigator. After data entry the questionnaire was kept in a safe cabinet under a lock and the key kept by the investigator. Data was then analyzed use of bivariate and multivariate analysis were applied to determine the association between socio demographic factors and attitude on emergency contraceptives and other predictor variables using chi-square test at 5% significance level.**

**Data collected and the materials used to collect data were kept under lock and key by the researcher.**

**The computer used was password protected.**

3. Results and discussion

**3.1 RESULTS**

The response rate was optimum. Out of the 154 respondents who filled the questionnaires, 57 of them were between the ages of 22 – 23 years (37%) followed by those of 20 – 21 years 51(33.1%). This was then followed by respondents who are between the age of 24 – 25 years 28 (18.2%) followed by those who are between 18 – 19 years13 (8.4%) and those who were above 26 years 5(3.3%). More than half of the respondents indicated that they were Protestants (67.6%) followed by Catholics (28.6%) with a minority from the Muslim community and atheist who had a tie of (1.9%).

Majority of the respondents (120) turned out to be single (77.9%) followed by those who were cohabiting (18) (11.7%) then those who were married (15) (9.7%) and few who were widows (1) (0.6%). Approximately (58%) of the respondents indicated that they resided in private hostels or rentals followed by university hostels (59) (38.3%) and a small number (5) indicated that they stay at home (3.3%). A number of respondents said that they lived with a friend or friends (69) (44.8%) followed by those who stay alone (52) (33.8%). This was followed by those who lived with a partner (24) (15.6%) then those who lived with parents/guardian (5) (3.2%) and finally those who lived with relative/relatives (4) (2.6%).

 **3.1 Attitude towards emergency contraceptives**

**Table 2: Attitude indicators towards emergency contraceptives**

|  |  |  |  |
| --- | --- | --- | --- |
| **Attitude indicators** | **Yes****N (%)** | **No****N (%)** | **Total****N (%)** |
| Using EC is better than using contraceptive method | 109(70.8) | 45(29.2) | 154(100) |
| In case of an emergency, I will use EC  | 90(58.4) | 64(41.6) | 154(100) |
| EC can damage the baby when breastfeeding | 93(60.4) | 61(39.6) | 154(100) |
| It is dangerous to recommend EC to others | 46(29.9) | 108(70.1) | 154(100) |
| **Summary index of attitudes.** |  |  |  |
| Favorable | 110(71.4) | 154(100) |
| Unfavorable | 44(28.6) |

 **3.2 Socio demographic factors associated with attitudes.**

Correlation analysis was done to determine the covariates which are significantly correlated to attitude and utilization of ECs. The covariates measured in the socio demographic factors were used as parameters that measure the given areas using Pearson chi-square at 5% significance level. The results depicted in the table below shows that there was no significant association between the attitude towards EC and religion, year of study, age, marital status and residence of respondents.

**Table 3. Association between socio demographic factors and attitude**

|  |  |  |  |
| --- | --- | --- | --- |
| Variable | Favorable attitude (n=110)Number (%) | Unfavorable attitude(n=44)Number (%) | Statistical test |
| Age  |
| 18 – 19 years | 9(8.2%) | 4(9.1%) | $$Χ^{2}=2.281, df=4,p=0.684$$ |
| 20 – 21 years | 37(33.6%) | 14(31.8%) |
| 22 – 23 years | 40(36.7%) | 17(38.6%) |
| 24 – 25 years | 19(17.3%) | 9(20.5%) |
| Above 26 years | 5(4.5%) | 0(0.0%) |  |
| Religion  |
| Catholic | 29(26.4%) | 15(34.1%) | $$Χ^{2}=4.337, df=3,p=0.227$$ |
| Protestant | 77(70.0%) | 27(61.4%) |
| Muslim | 1(0.9%) | 2(4.5%) |
| Atheist | 3(2.7%) | 0(0.0%) |
| Year of study |
| First | 19(17.3%) | 7(15.9%) | $$Χ^{2}=0.349, df=3,p=0.950$$ |
| Second | 29(26.4%) | 13(29.5%) |
| Third | 33(30.0%) | 14(31.8%) |
| Fourth | 29(26.4%) | 10(22.7%) |

|  |  |  |  |
| --- | --- | --- | --- |
| Variable | Favorable attitude (n=110)Number (%) | Unfavorable attitude(n=44)Number (%) | Statistical test |
| Place of residence |
| University hostels | 42(38.2%) | 17(38.6%) | $$Χ^{2}=0.186, df=2,p=0.911$$ |
| Private hostels/rentals | 64(58.2%) | 26(59.1%) |
| Home | 4(3.6%) | 1(2.3%) |
| Marital status |
| Married | 12(10.9%) | 3(6.8%) | $$Χ^{2}=1.596, df=3,p=0.660$$ |
| Single | 83(75.5%) | 37(84.1%) |
| Widow | 1(0.9%) | 0(0.0%) |
| Living with a partner | 14(12.7%) | 4(9.1%) |

**3.2 DISCUSSION**

In this study the summarized figure for attitude towards EC showed 71.4% of the respondents who have ever heard of EC had favorable attitude toward EC. This figure is higher than one in Ethiopia where 48% had a favorable attitudetowards EC. (8). The findings from this study concur with on done in Ethiopia where respondents had a favorable attitude towards EC and that some of the students had a plan of using emergency contraceptives (ECPs) and also promote others to use if unintended sexual intercourse occurred (9). A favorable attitude towards EC was also seen in students studying nursing in Spain (10). Another study from Nigerian University students also concurred (11).

On the contrary concerning the overall level of female students’ attitudes, the majority 165 (57.8%) of the participants had an unfavorable/negative attitude and 79 (27.6%) had a favorable/positive attitude towards EC in a study conducted among college students in Dire Dawa City, Eastern Ethiopia (12).The results for the logistic regression analysis indicated that age, year of study, religion, marital status and place of residence did not influence the level of attitudes on emergency contraceptive utilization. This can also be compared to a study in Ethiopia (9).

1. Conclusion

Generally, most of the respondents had a favorable attitude (71.4%) on EC and more than half indicated using EC is better compared to using long term contraceptive method (70.8%). A number of them implied that they could use EC in case of a need (58.4%). Less than a half were of the feeling that EC do not damage one’s baby while breastfeeding (39.6%), majority indicated that they could recommend EC to others (70.1%). However cumulatively respondents were reported to having unfavorable attitude towards EC at 28.6% and about (29.2%) implied using ec is better than utilizing contraceptive method.

Age, marital status, study year, religion, and one’s place of residence did not influence the level of attitude on emergency contraceptives.

**Ethical approval and Consent**

**Approval to carry out the study was sought from ethical review committee of university of Kabianga. Approved on 24th April 2019. (IERC AN 0008).**

**Participation was voluntary through written informed consent after respondents had been properly explained to.**

**Confidentiality was observed by the use of unnamed questioners.**

**List of abbreviations and acronyms.**

**Ec** emergency contraceptives.

**Kdhs** kenya demographic health survey.

**Rh** reproductive health.

**Ecps** s emergency contraceptive pills.

**Iucd** intra uterine contraceptive device.

**Definition of terms**

**Youth:** world health organization (2006) defines youth or young adult as one who is 15-24 years.

**Adolescent:** who define adolescent as young people between age of 10 and 19 years.

**Emergency contraceptives:** who defines emergency contraceptives as a method of contraception that can be used to prevent pregnancy within the first 120 hours after unprotected sexual intercourse.

**Unintended pregnancy:**  the act of becoming pregnant without planning or waiting to become pregnant.

**Attitude:** hypothetical construct that represents an individual’s degree of like or dislike for something positive or negative views of a person, place something or event.

**Abortion:** deliberate termination of a pregnancy before term.

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Details of the AI usage are given below:

1.

2.

3.

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Appendix



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