



St. Paul's HOSPITAL MILLENNIUM MEDICAL COLLEGE

ASSESEMENT OF KNOWLEDGE,ATTITUDE AND PRACTICE ON FAMILY PLANNING AMONG BULLEN HIGHSCHOOL FEMALE STUDENTS, METEKEL ZONE,BENISHANGUL GUMUZ REGIONAL STATE,WESTERN ETHIOPIA.

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STATE,WESTERN ETHIOPIA.

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A THESIS RESEARCH PROPOSAL

FEBRUARY 2018

ADDIS ABABA, ETHIOPIA

D E C L A R A T I O N

I declare that FEMALE HIGH SCHOOL STUDENTS' KNOWLEDGE, ATTITUDE AND PRACTICE TOWARDS EMERGENCY CONTRACEPTIVES is my own work and that all the sources that I have used or quoted have been indicated and acknowledged by means of complete references and that this work has not been submitted before for any other degree at any other institution.

Full name: DEREJE FEKADU BEJASSO

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Acronyms

EDHS	Ethiopian Demographic and Health Survey
EC	Emergency Contraception
ECP	Emergency Contraceptive Pills
FGAE	Family Guidance Association of Ethiopia
FP	Family Planning
IUCD	Intrauterine Contraceptive Device
OCP	Oral Contraceptive Pills
KAP	Knowledge, Attitude & Practice
RH	Reproductive Health
SES	Socioeconomic Status
SRH	Sexual and Reproductive Health
SPHMMC	Saint Paul's Hospital Millennium Medical College

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Abstract

Background; Despite the availability of highly effective methods of contraception, many pregnancies are unplanned and unwanted. These pregnancies carry a higher risk of morbidity and mortality, often due to unsafe abortion. Many of these unplanned pregnancies can be avoided using emergency contraception. Emergency contraception refers to type of contraception that is used as an emergency procedure to prevent unintended pregnancy following an unprotected act of sexual intercourse. Each year there are about 250 Million pregnancies globally and despite the presence of Emergency contraceptives one third of these are unintended and 20% of these undergo induced abortion. In Low income countries like Ethiopia, more than one third of the 182 million pregnancies are unintended.

Objective: To assess knowledge, attitude and practice towards emergency contraceptive methods among female students in Bullen high school Bullen town, west Ethiopia.

Methods: school based descriptive cross-sectional study will be conducted on 422 female students in Bullen high school Bullen town, west Ethiopia. From March to April.

Study populations will be selected from different educational levels (9th to 12th) using stratified random sampling technique. Self-administered questionnaire will be used to collect data. After data is collected, it will be entered into a computer and analyzed using SPSS version 21.0 statistical software and presented in texts, tables, charts and graphs.

Result:

Keywords: Emergency contraceptive; Knowledge; Attitude; practice; Unwanted Pregnancy;

Recommendation:

Abbreviations:

1. Introduction

1.1 Background

Emergency contraceptive is a method of contraception used after intercourse and before the potential time of implantation, offers women a last chance to prevent pregnancy after unprotected intercourse [1]. Since it is difficult to determine the infertile time of the cycle with certainty emergency contraceptive better be provided for any women who is concerned about her risk of pregnancy, regardless of the cycle day of exposure. The two mainly used emergency contraceptives are oral pills and intra uterine contraceptive devices (IUCD) [1, 2]. When used Within 72 hours after sexual contact pills have the capacity to prevent Pregnancy by 75-85% and with the use of IUCD, unwanted pregnancy can be prevented by as much as 99%. This is especially significant for those young couples whose options are not to use a long-term regular Contraceptive methods and their sexual behavior is rather unplanned, Erratic and irregular [3, 4].

Despite the availability of highly effective methods of contraception many pregnancy are unwanted and unplanned which could be due to gap in awareness, negative attitudes towards contraception, low accessibility or as a result of sexual assault. At times, the knowledge and practice might be there but no contra-captive is 100% effective, and it is always very vital to have EC as a backup method [4, 5]. These pregnancies carry high risk of morbidity and mortality often due to unsafe abortion .Many of these unplanned pregnancies can be avoided using

Emergency contraception [1]. Each year there are about 250 Million pregnancies globally and one third of these are unintended and 20%of these undergo induced abortion [2]. In Low income countries, more than one third of the 182 million pregnancies is unintended; the fate of 19% will be induce abortion and 11% of this is unsafe [3].

The world reference bureau 2008, ranked Ethiopia the fifth highest number of maternal deaths occurred in the world, this means (1 in 27) women die from complications of pregnancy or childbirth annually due to unintended pregnancy and abortion [3]. Several studies in the country have revealed that women who tend to undergo induced abortion are below the age of 30 years and are literate; many of whom being above the secondary educational level [4, 5].

In one of the surveys conducted in Ethiopia, among 1075 women who presented with abortion, about 58% were between age group of 20-29; and non-use of contraceptive contributed to 78% of these pregnancies and rape accounted for 3% of the abortions [6]. In a study conducted in one of the high schools of Ethiopia, the prevalence of attempted rape was 8.8% and the prevalence of performed rape was 11.5% [7].

In 2001, the Family Guidance Association of Ethiopia (FGAE) in collaboration with the Population Council initiated for the time a pilot project to introduce EC in selected youth center clinics in the country. In this project EC was provided in a repackaged attractive brand for adolescents and youth by cutting the regular contraceptive pills though the services were limited in scope and coverage. Emergency contraception was officially introduced in Ethiopia by the Ministry of Health in 2005 with the aim of improving sexual and reproductive health (SRH). The method, however, remained poorly known and unavailable [8, 9].

Given increasing adolescent sexual activity and decreasing age at first sex in developing countries, the use of contraceptives to prevent unwanted pregnancy and unsafe abortion is especially important. The potential effect of emergency contraceptives (EC) in this regard is obvious in sub-Saharan Africa [9]. Its potential as the last resort to avoid unwanted pregnancy and therefore abortion makes it especially significant for those young couples that opt not to use a long-term regular contraceptive method and their sexual behavior is rather unplanned, erratic and irregular [10].

1.2 Statement of the problem

Unwanted pregnancy and its outward consequences on physical and psychological wellbeing of adolescent girls and young adult women is a problem [1]. The annual number of induced abortions, in Africa rose between 2003 and 2008, from 5.6 million to 6.4 million. Unsafe abortion is a major medical and public health problem in Ethiopia [2]. Among some of previous studies conducted in Ethiopia; study conducted in undergraduate university students revealed a significant number (15.8%) of students didn't ever heard about emergency contraceptive. Moreover, (5.7%) don't know to be emergency contraceptive is given over 72 hours of unprotected sexual relation while the other significant number of study participants (18.2%) don't know the timing to be emergency contraceptive will be taken [3, 4].

In Ethiopia unsafe abortion accounts 54% of all direct obstetric death and most of those who die are poor, single, women under 20 years of age [6]. According to EDHS 2016 the maternal mortality ratio was 412/100,000 live births [EDHS 2016]. Adolescents in Ethiopia also suffer from unwanted pregnancy and its complication. [7].

The problem (unintended pregnancy and abortion) are more prevalent in younger age groups of girls and this age group is mainly found in secondary and high school level (preparatory school) of education [5]. This is mainly due to gap in awareness, negative attitudes towards contraception [4].

Such problem is prominent in adolescent groups of emerging nation where there is a limited access of are productive health education. Thus it is important to examine problems in young age group women regularly and identify the relevant problems in the emerging nations.

Hence, the main purpose of this survey is to determine knowledge, attitude and behavior/practice (KAP) towards emergency contraceptive among female students of Bullen high school, western Ethiopia

2. Literature review

Another study was done in Durban, South Africa. The study found that respondents used emergency contraceptive method because they were not using other methods of contraception to prevent pregnancy. They gave a number of reasons for preventing unplanned pregnancy including the desire to complete their education, their lack of financial stability and their unstable relationship status. Respondents revealed that they feel that EC is an effective method to prevent pregnancy, although some women who fell pregnant indicated that they needed more information and guidance about why emergency contraception sometimes does not work effectively and results in pregnancy. Furthermore, the study indicates that health care facilities, cultural and religious beliefs are the main barriers for young people not accessing contraceptive methods [21].

Across-sectional study was conducted during 6 months period by questionnaire based survey testing the level of knowledge of emergency contraception (EC) and attitudes towards its use among sample of women attending Baghdad primary health. It was found that the participants had limited information about EC, the most common source of their Knowledge about EC is Obstetrics & Gyn/obs seniors, and the most common attitude among the participants was neutral and concluded that only 12% use EC to prevent unwanted pregnancy. There was an association between knowledge of participants and age, number of children and socio-economic status. There was a significant association between unintended pregnancy and the educational level of women [22].

A descriptive cross sectional study was done in Dar Es Salaam in university girl students To asses knowledge, attitude and practice towards emergency contraceptives and concluded that out of 350 female students participated in this study, 57% were aware of ECP and only 14% had used them. About half (49%) of the participants had poor knowledge on ECP and low awareness and poor knowledge on ECP was observed among the study population [23].

K.Iokorosalia did school based crossectional study in Kenya university students on assessing knowledge, attitude and practice of emergency contraceptives and found that Majority (83.6%) of the students were sexually experienced. Although a high proportion of students were sexually active, only 22.9% were currently practicing some form of contraception. About half of the respondents had heard about emergency contraceptives. Pill (38.9%) was the most currently used contraceptive. There was poor knowledge on time to use, side effects and possible mode of action. 7.35.5% view that EC is abortifacient. This view was negatively influencing the desire to use, Provide or encourage the use of EC. Religious affiliations had minimal influence on the desire to use or provide the method. From the foregoing, it is clear that there is need to educate the students on the emergency contraception method which should be made available to those who may want to use it .Emergency contraception is underutilized in Kenya. This situation might remain so unless efforts to improve the knowledge and misconceptions of potential providers are improved [24].

Study was done by B Parey; L Addison; JK Mark; B Maurice; V Tripathi; S Wahid; R Antoine; A Sahaito assess knowledge, attitudes and practice of EC among tertiary level students in Trinidad. Eighty-four per cent of the students were less than 25 years of age, 64% were Christians and 92% were single. Sixty-three per cent were female and there were more females in the non-medical group than the medical students group but the numbers were not significant. Eighty-one per cent used condoms as the main type of contraception. Only 63% had heard of ECs before and only 9% had heard of ECs from medical sources. Among the factors that related to attitude towards EC, only two factors were significant. Sixty-two per cent of students felt that increased EC use would increase promiscuity but 59% also felt that ECs should be made more easily available. And concluded that the general level of their knowledge about ECs was poor. The general attitude of students towards ECs was positive [25].

There was study conducted in Nagpur district of central India on exploring knowledge, attitude and practice of engineering college girls towards emergency contraceptives showing total of 85.7% reported that they had previously used ECPs. An association was found between users and their level of knowledge. Users had Average/Good knowledge as compared to non-users. A strong association was found between source of information and level of knowledge. In other words, respondent receiving information from the Health Personnel and Audio-Visual Media were more likely to have good or average knowledge as compared to family and friends [26].

A descriptive cross-sectional study was conducted on 284 female students in Seto-Semera high school Jimma town. In this study, 284 female students were participated. Out of this majority of them 238(83.8%) were between the age of 14-17 years. One hundred thirty of them were Oromo Ethnic group. And two hundred seventy two of those unmarried. Only 115(40.5%) had heard about EC, 31(27.0%) of the respondents mentioned the correct recommended timing for oral pills of emergency contraception use. With regarding to attitudes 83(73.0%) of the respondents had positive attitude from the total heard of emergency contraception methods and concluded that knowledge of Emergency contraceptives is low [1].

The major source of information were mass media TV/radio. The majority of students those heard of Emergency contraceptives were not know the correct time limit to Emergency Pills and Intrauterine Contraceptive Device .The absence of correct information about EC could be barrier from being utilization by individual who need Emergency contraceptives (ECs). The utilization of EC was very low this leads to higher chance of unintended [1].

School based crossectional study was done in 2015 in ambo preparatory students by Elias Teferi, Tsegaye Benti and Meseret Ifa to assess their knowledge, attitude and practice toward ECs. During the survey 27.7%, 18.8%, 93.7%, 78.5% and 34.9% of the respondents had ever had sex in the past, been pregnant, knew about ECs, agreed on its benefits and had ever used it respectively. Age the respondents and sexual experience were the independent predictors of EC. Significant number of student faced unintended pregnancy and unsafe abortion. The knowledge and practice of EC was very low [2].

Study was done by Ketema Bizuwork Gebremedhin, Tesfaye Gebresillassie, Beedemariam Bihone, Tesfaye Demeke and Netsane Habtie to assess Knowledge, Attitude and Behaviour towards Emergency Contraceptive among Female Students of Fasiledes Preparatory School, Gondar, Ethiopia. Out of 327 respondents, 318 were completed and analyzed in this study. The majority (69.4%) of the study participants had good level of knowledge. Similarly, equivalent (71.1%) amount of the study participants had good attitude towards emergency contraceptive while the study participants who use ever emergency contraceptive before this interview was only (13.5%). Moreover, the more known type of the emergency contraceptive method was Pills (74%). The major source of information of study participants to get information about emergency contraceptive was mass media (34.4%) [3].

A descriptive cross-sectional study design will be conducted, to assess knowledge, attitude & practice among female students towards usage of ECP on two preparatory schools (i.e. SOS and ABOKER) in Harar from September to October, 2013. Among the participants (n=242), Majority (81.4%) of them had heard of EC, and the main source of information's were Mass media (44.7%) and School (31.6%) and when specifically asked the type of EC by name 55.8% answered IUCD, Majority of the respondents (71.9%) have favorable attitude towards EC use. 27.3% of the respondent had sexual intercourse at least once, of this 21.5% was unprotected sex. Among those who had sexual intercourse 24.8% had ever used EC, of this 7.4% become pregnant and all of them end up in abortion. In this study knowledge and attitude towards the use of EC had significant association with religion and residence with p value 0.007 and 0.023 respectively. The study has revealed that while overall awareness of EC is fair, actual knowledge of EC is very low among female students in Harar preparatory schools [4].

A cross-sectional survey was conducted among 774 female students at Addis Ababa University and Unity University College from January to September 2005 by Wegene Tamir, Fikre Enqueselassie to assess the knowledge, attitude and practice of emergency contraceptives among young females. About 43.5% (95% CI 40.0 - 47.0%) of the students said that they have heard about emergency contraceptives. When asked about specific types of emergency contraceptives, among those who have ever heard of emergency contraceptives, 279 (82.8%) mentioned pills and 115 (34.1%) mentioned intrauterine contraceptive devices (IUCDs). About 53% of the students had positive attitude towards emergency contraceptives and only 4.9% respondents reported that they had used emergency contraceptive methods previously. The study has shown that there is low level of knowledge and practice of emergency contraceptives among female university students [5].

Another Cross-sectional quantitative study among 368 AAU undergraduate students was conducted using self-administered questionnaire of which only 23.4% were sexually active. Majority (84.2%) had heard of EC; 32.3% had a positive attitude towards it. The main source of information reported by the respondents was Media (69.3%). Among those who were sexually active, about 42% had unprotected sexual intercourse. Among those who had unprotected sexual intercourse, 75% had ever used EC. Sexually active participants had significantly better attitude towards EC than sexually inactive participants; even after adjusting for possible confounders such as age, region, religion, ethnicity, marital status, department and family education and income [6].

In general the study showed high EC awareness and usage in contrast to other studies in the city, which could be due to the fact that university students are relatively in a better educational level [6].

A descriptive cross sectional survey was conducted among 352 sampled female college students of Dessie, Ethiopia from June 4 to June 5/2012 to assess the knowledge, attitude and practice of female college students' towards sex and emergency contraceptives. The age of students ranged from 18 to 25 years. Of the total respondents 36.6% ever had sexual experience, 53.3% know at least one regular modern contraceptive method, 69.9% heard about emergency contraceptives (EC) but, only 33.9 % had good knowledge about EC and 15.4% of them had ever used it. Less than fifty percent of the respondents were knowledgeable about EC. The correct knowledge of the method such as the time limit is lacking for most of the students. Information, education & communication to increase awareness and knowledge about emergency contraceptive is important [7].

Across-sectional study design was employed from March 26 to 30/2013, on 624 regular undergraduate female students of Debre-markos University 62.5% of respondents had good knowledge and 53.8% had favorable attitude towards EC. Only 11.4% used the method. 26.4% of students were sexually active, 78% had history of unwanted pregnancy of this 93.7% had history of induced abortions. Residence, Year of study, Mother's educational status of the student and ever use of regular contraceptive, showed significant association with knowledge of EC. Age, Marital status, father's educational status of the students and knowledge on EC showed significant association with practice of EC. Knowledge and attitude of EC among female regular undergraduate students in this University was good, but utilization of EC was very low. There was misinformation among these students such as correct indication of EC [8].

Another Quantitative cross-sectional study was done to assess the knowledge, attitude, utilization of emergency contraceptive and associated factors among female students of Debre Markos Higher Institutions 2014. The overall response rate was 88%. The age of the study participants ranged from 18-35 years with mean of 20.59 years.

Among the students participated in this study 411(74.9%) were found to be knowledgeable about emergency contraceptives but only 283(48.5%) had favorable attitude and 99(18.4%) female students ever used. Age group greater than or equal to 25 years, married students and students with unfavorable attitude were less likely users. More than half of respondents had unfavorable attitude towards emergency contraceptive methods and the utilization was very low. Age of respondents, married status and their attitude were independent predictors of emergency contraceptives use [9].

A cross-sectional institution-based study was conducted from March 1st to 5th 2010 by Alemitu Worku to assess knowledge, attitude and practice of emergency contraceptives among female college students in Arba Minch town. 42.5% of the respondents said that they heard about emergency contraceptive. Of those who mentioned pills as an emergency contraceptive method, 26.4% correctly identified 72 hours as the time limit for use of the method. 21.9% had good knowledge about EC. Though 50% of students had positive attitude towards EC, 2.7% of the total students had used emergency contraception. EC use was significantly higher among students who were married and among students who have good knowledge on EC. The study showed that knowledge of emergency contraception among female students is low and the method is still underused. Similar study done in Arbaminch in 2009 concludes that Knowledge and utilization of EC was low, but attitude on EC was relatively high. Pills have been used widely by most of the respondents as an EC method [10, 11].

Nasir Tajure conducted cross-sectional study in Jimma University main campus in 2009 to assess the knowledge, attitude and practice of emergency contraception among graduating female students of Jimma University main campus. A total of 389 (96.5%) volunteered graduating female students participated in the study. One hundred sixty three (41.9%) wherever heard of Emergency Contraceptive, only 11(6.8%) used the method. The common sources of information were friends 60 (36.5%), radio 37 (22.8%) and television 20 (12.3%). One hundred sixteen (71.2%) agreed to use Emergency Contraceptive when they practice unintended sexual intercourse. Awareness and use of emergency contraception among graduating female students of Jimma University was low [12].

An institution-based cross-sectional survey was conducted among female students of Hawassa University in December 2012. 92.7% of female university students ever had sexual intercourse and 2.2% experienced forced sex. 47% of these students experienced unintended pregnancy all of which resulted in an induced abortion. 72.2% of the respondents had knowledge about emergency contraceptives and only 10.8% of them had ever used emergency contraceptives; oral contraceptive pills were the most widely used form of all emergency contraceptives 10.8%. Age, marital status and age at menarche were associated with knowledge of emergency contraception; moreover, residence, year of study and experience of forced sex were found to be predictors of emergency contraception utilization. Female university students had been experiencing high rate of unintended sexual practice and pregnancy, low knowledge level and utilization of emergency contraceptives; moreover, they had no youth-friendly access to the services [13].

Another survey was done at Haramaya University. The findings of the study revealed that 47.6% of the respondents had ever heard about EC; 25.7 % had good knowledge of EC, and 76.5% had favorable attitude toward EC. Age, previous place of residence, religion, grade level, knowing other methods preventing. Unwanted pregnancy, sex education, chewing ‘Khat’, and consuming alcohol were found predictors of awareness of EC. Similarly, religion, grade level, father’s educational level, knowing other methods of preventing unwanted pregnancy, and currently chewing Khat were found to significantly predict attitude toward EC [14].

A cross-sectional study design was employed from February 1 to 30/2009, on 660 regular undergraduate female students of Adama University to assess female students' knowledge, attitude and practice of emergency contraceptives. Of the total, 660 respondents, 194(29.4%) were sexually active, 63(9.4%) had history of pregnancy and 49(7.4%) had history of abortion. About 309 (46.8%) of the students had heard about emergency contraceptives and from those who heard emergency contraceptives, 27.2% had good knowledge. Majority, four hundred fifteen (62.9%) of the students had positive attitude towards it. However, only 31(4.7%) had used emergency contraceptive methods. This study demonstrated lack of awareness, knowledge and utilization of emergency contraceptives among Adama University female students [15].

An institutional based cross-sectional survey was conducted among 616 female college students at Mekelle town from March to July, 2011. Of the total respondents, 67.3% of them replied that they have heard about emergency contraceptives. Among those who have ever heard of emergency contraceptives, 57% mentioned pills only, 2.3% mentioned intrauterine contraceptive devices only and 39.2% mentioned both pill & IUCDs. 45% of the respondents were knowledgeable towards ECs, and about 46.4% of the students had positive attitude towards emergency contraceptives. Of the sexually active respondents 24.2% only reported that they had used emergency contraceptive methods previously. Whereas, 75.8% were not used emergency contraceptives; some of the reasons were lack of knowledge about ECs (42.9%); no desire to use (22.8%) and inaccessibility toward emergency contraceptives (16.4%). The study indicated low level of knowledge; very low level of practice and majority showed negative attitude towards emergency contraceptives [16].

The descriptive study was undertaken to assess knowledge and use of contraceptives among secondary school girls in Tanzania. It was found out that majority (97%) of the girls knew at least one contraception method but only (40%) used any of the methods. The major source of information on contraceptives was from schools and media. Majority of the participant (87%) were aware of unwanted pregnancies prevailing among school girls and problems associated with it [19].

3. Objective

3.1 The main objective

The overall purpose of this study is to assess knowledge, attitude and practice of emergency contraceptive use among female students in Bullen high school, BGRS.

3.2 Specific objectives

- To assess the knowledge of emergency contraception among students of secondary and preparatory schools in Bullen woreda, BGRS.
- To describe the attitude toward emergency contraception among students of secondary and preparatory schools in Bullen woreda, BGRS.
- To determine practice of emergency contraception among students of secondary and preparatory schools in Bullen woreda, BGRS.

4. Methodology

4.1 Study Design

A descriptive cross sectional study design will be conducted to assess knowledge, attitude and practice of emergency contraceptive methods among female students in Bullen secondary and preparatory school female students.

4.2 Study area and period

This study will be conducted from March to April 2010 EC in Metekel zone Bullen woreda Bullen preparatory school. This school is one of the governmental and oldest only secondary and preparatory school. By being the town has no other private school until this study was conducted; the school is a center for all economical level of students. Currently, the school had a total of 24 sections among those 9 are 9th grade 7 are 10th grade 4 are 11th and the rest 4 are 12th. As a whole, the school had a total of (1680) student; among them (924) are Female. Students from this school are from the town and district towns of the province. Bullen town is 685 km away from Addis Ababa. The town has total population of 47,000. This town has latitude and longitude of 13°0'N 35°45'w/12.821°N 45.674°E and an elevation of 1200 m above sea level. The woreda has one General Hospital, one health center and four private drug venders. The General Hospital is located 3km to east of Bullen town and established in 2005E.C. The majority of the inhabitants practiced Ethiopian Orthodox Christianity, with 98.9% of the population reporting that belief, 0.7 are Protestants and 0.4 were Muslim

4.3 Study Population

All female students attending their education from Bullen high school in academic year of 2017/18.

4.4 Eligibility criteria

4.4.1 Inclusion criteria

All female students aged between 15 & 49 attending class, who will be available at the time and consented and volunteer.

4.4.2 Exclusion criteria

Students who are mentally handicapped

4.5 Sampling Technique and Sample Size

4.5.1 Sampling technique

The required numbers of samples will be allocated proportionally among each grade students using stratified sampling technique. A sampling frame of female students from each grade will be made the study participants will be selected through systematic random sampling method based on the proportion of their strata every K-values.

4.5.2 Sample size

Since the data was not available on emergency contraception among high school female students in the woreda, zone and even in the regional state, 50% of population proportion considered to determine sample size based on single population proportion and the level of precision (d) is (0.05).

$$n = \frac{(Z_{\alpha/2})^2 p(1-p)}{d^2}$$

Where

n = minimum sample size of the study subject

z = standard normal distribution curve /value for the 95% confidence interval (1.96)

p = proportion of population with KAP emergency contraception among high school female students (50%)

d = the margin of error taken (0.05)

$$n = \frac{(1.96)^2 (0.5) (1-0.5)}{(0.05)^2} = 384$$

Since source population <10,000 population correction formulas were employed with following formula

$$N_f = n / (1 + n/N) = 384 / (1 + 384/924) = 384$$

n = minimum sample size (384), N = total number of female students (924), N_f = minimum final sample size Thus n_f = 384. Considering 10% non-response rate of 38 lastly the final sample size become 422.

4.6 Instruments and Measurements

Pretested and structured questionnaire will be used. The questions and statement are grouped and arranged according to the particular objectives that they can address.

4.7 Data Collection Procedure

Data will be collected through self-administered structured questionnaire. Randomly selected students from each class rooms will be taken to one class room or hall based on their willingness to participant in the study. They will be provided the questionnaire and oriented how to fill the questionnaire. The questionnaire is in English however to avoid language barrier bias difficult medical terms will be translated to Amharic in brackets. After filling the questionnaire they will return to the assigned data collectors.

4.8 Study Variable

4.8.1 Dependent Variable

Knowledge about contraception, Attitude about contraception, Practice about contraception

4.8.2 Independent Variable

Age, Sex, Socioeconomic status, religion place of living, Ethnicity and Marital status

4.9 Data quality control

The questionnaire will be pre tested on students not included in the study to verify clarity of instruments and to familiarize data collectors to the instrument necessary correction will be taken accordingly. The data collectors will be given one day training by investigator on the instruments and method of data collection and the purpose of the study will be clearly explained. Then the investigators will supervise the data collectors during the procedure and they will check the collected data for completeness, accuracy, clarity and consistency throughout the data collection period.

4.10 Data analysis

The data will be checked for incompleteness and internal inconsistency by cross checking and then will be cleaned, edited, tailed on master sheet and the data will be entered, processed and analysed by using SPSS (Statistical Package for Social Sciences) 21.0 window version.

4.11 Ethical Consideration

The ethical approval letter of permission will be obtained from SPHMMC public health department and official permission will be sought from the Bullen high school administrative body to get permission and cooperation. The respondents will be informed about the objective and purpose of the study and verbal consent will be obtained from each respondents. Also they will be informed about their right of not participating in the study. In addition, confidentiality of in formations will be assured and privacy of the study populations

Will be respected and kept as well. Moreover, to ensure confidentiality the name of respondents will not be written the consent form. The final report of the study will be submitted to SPHMMC public health department and to Bullen high school. Finally possible efforts will be made to publish the result on national and international peer reviewed journals.

4.12 Operational Definition

Knowledge : A study subjects awareness on existence of Emergency Contraceptive, type of EC knew time limit to be taken EC after unprotected sex with 72/120 hrs & occasions when EC was used/not used.

Knowledgeable: scoring of 75%-100% from the knowledge measuring question, if the participants answered ≥ 6 knowledge measuring question.

Fairly knowledgeable: scoring of 50%-74% from the knowledge measuring questions/answered. 4-5 knowledge measuring question.

Non knowledgeable: scoring of < 50 from the knowledge measuring questions/answered < 4 knowledge measuring question

Attitude: Attitude is the study subjects opinion outlook, position and ideas towards EC methods. Study subject who have concerns and negative opinions about EC.

Positive attitude: scoring of 75-100% from attitude questions.

Negative attitude: Scoring ≤ 75 % attitude measuring questions

Practice: Ever use of EC on the basis of their knowledge when the study subjects are exposed to unprotected sexual intercourse to prevent unintended pregnancy.

Emergency contraception; a kind of contraception indicated after unprotected sexual intercourse to prevent unintended pregnancy.

Abortion: Termination of pregnancy before the fetus reaches 28 weeks of gestation.

Unintended pregnancy; Pregnancy occurred with no plan.

Unsafe abortion: Abortion often conducted by lay people in non-sterile condition.

5. BUDGETS

Table 1: Personnel Costs break down: -

Personnel	Activity	Quality	No	Working days	Per-day	Total
Data collectors	Training+ Data collection	Preparatory student	3	5	150	2250
supervisor	Coordinating	Health worker	1	10	150	1500
Principal investigator	While organization		1	30	150	4500
Data clerk	Data entry & clearance	IT qualified	1	contract	600	600
Total						8850

Table 2: Transport and communication cost: -

Description	Trip	Unit price	total
Transport	One way trip	900	1800
Communication (fax, tel. e-mail)	-----	-----	500
Total	-----	-----	2300

Table 3 : Cost of Supplies (Stationary)

Description	Unit	Quantity	Unit Price in Birr	Total in Birr
Duplicating paper	Rim	13	100	1300
Duplicating ink	Tube	2	60	120
CD/R	single	5	30	150
Stencils	Each	1	90	90
Pens	Each	12	5	60
Pencils	Each	13	1	13
Photo copy	Each	--	154	154
Notebook	Each	12	10	120
Calculator	Each	1	80	80
Marker	Set	1	50	50
Total	----	-----	-----	2137

Table 4: Project cost summary: -

Number	Descriptive cost	Total
1	Personnel	8850
2	Supplies	2137
3	Transportation and communication	2300
4	Total	13287
5	Contingency (15%)	1993.05
6	Grand total	15280.05

6. WORK PLAN

Table 5: Time schedule

Ser. No	Activity	Responsibility	Jan	Feb	Mar	Apr	May	Jun	Jul
1	Proposal & Questionnaire development	Investigator							
2	First Draft Proposal	Investigator							
3	Final Draft Proposal	Investigator							
4	Proposal approval & ethical clearance	Investigator							
5	Training of data collectors & supervisors	Investigator							
6	Pretest of questionnaire	Investigator & data collectors							
7	Modification of questionnaire	Investigator							
8	Data collection	data collectors							
9	Descriptive Result Submission	Investigator							
10	Analytic Result Submission	Investigator							
11	First Draft Report	Investigator							
12	Final Draft Report	Investigator							
13	Final Thesis Report Submission	Investigator							
14	Research Report Evaluation by Examiners	Investigator							
15	Thesis Defense	Investigator							
16	Final Report Submission after the Defense	Investigator							

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Annex I. Questionnaire

Saint Paul's hospital millennium medical college department public health Survey questionnaire on the Knowledge, Attitude and Utilization of EC among female students in Bullen highs cool

CONSENT FORM

Greeting

I am working for Dr. Dereje Fekadu, who is a final year medical student in under graduate program of medicine at St. Paul's Hospital Millennium Medical College. The main purpose of this study is to find out why females aren't using emergency contraceptives and what the barriers to the use are and to get a solution to decrease unplanned pregnancies leading to induced abortions. I'm inviting any female of reproductive age group 15-49 years to contribute to this study.

So I would like to ask you some questions about family planning. It would be helpful in identifying problems related to emergency contraception and improve family planning service in the future to meet your need. Your name will not be recorded. All information you give will be kept strictly and you have the right not to respond any question you don't want to.

Yes-----, No-----Signature of the investigator certifying that the informed consent has been verbally by respondents-----

Identification

Interviewer name----- Date of interview in Ethiopian Calendar -----/------
-/-Checked by Supervisor Signature -----Principal

Investigator Name and address

Name- **DR.DEREJE FEKADU BEJASSO**

Telephone - **+251939474386**

Email address- **derman0981@ gmail.com**

**St. Paul's HOSPITAL MILLENNIUM MEDICAL COLLEGE
ADDIS ABABA ETHIOPIA**

This questionnaire is designed to assess Knowledge, Attitude, and Level of utilization of emergency contraception among female students in Bullen high school. All the respondents are kindly requested to give their response for all questions. Your genuine answer is of paramount importance to the outcome of the research and that all the answers and your identity are kept undisclosed. If you need clarification you can communicate with the supervisors.

Thank you in advance!

Instruction: Circle the letter given to the answer you choose and for questions that you give direct answer, write the answer in the space provided.

1. Identification Data

- a. Date of interview Day____/Month____/Year____/
- b. Time interview began Hour: Min____:____
- c. Time interview finished Hour: Min____:____
- d. Place:

2. Background information

2.1. How old are you? -----

2.2. Religion

- a. Orthodox
- b. Muslim
- c. Protestant
- d. Catholic
- e. Other

2.3. What is your ethnic group?

- a. Shinasha
- b. Gumuz
- c. Amhara
- d. Oromo
- e. Agaw
- f. Other Specify

2.4. What is your educational level?

- a. Grade 9
- b. Grade10
- c. Grade 11
- d. Grade 12

2.5. What is your current marital status?

- a. unmarried
- b. Married
- c. Divorce
- d. Separated
- e. widowed

2.6. With whom are you living now?

- a. With father and mother
- b. With friends
- c. Alone
- d. Other (specify)

2.7. Father's educational level?

- a. No studies at all
- b. Read and write
- c. Grade 1-6
- d. Grade 7-12
- e. 12+2
- f. 1st degree and above
- g. Other, specify_____

2.8. Mother's educational level?

- a. No studies at all
- b. Read and write
- c. Grade 1-6
- d. Grade 7-12
- e. 12+2
- f. 1st degree and above
- g. Other, specify_____

3. Attitude toward emergency contraceptives

3.1. The provision of emergency contraceptive to students would encourage promiscuity

- a. Agree strongly
- b. Agree slightly
- c. Neither agree nor disagree.
- d. Disagree slightly
- e. Disagree strongly

3.2. The provision of emergency contraceptive would discourage compliance to other contraceptive methods

- a. Agree strongly
- b. Agree slightly
- c. Neither agree nor disagree.
- d. Disagree slightly
- e. Disagree strongly

3.3. Repeated use of emergency contraceptive pose a health risk

- a. Agree strongly
- b. Agree slightly
- c. Neither agree nor disagree.
- d. Disagree slightly
- e. Disagree strongly

3.4. EC should be prescribed for a client to have on hand prior to an episode of unprotected sexual intercourse

- a. Agree strongly
- b. Agree slightly
- c. Neither agree nor disagree.
- d. Disagree slightly
- e. Disagree strongly

3.5. EC should be available over the counter without prescription

- a. Agree strongly
- b. Agree slightly
- c. Neither agree nor disagree.
- d. Disagree slightly
- e. Disagree strongly

4. Awareness about emergency contraception

4.1. Is there any method that could be taken to prevent pregnancy after unprotected sex?

- a. Yes
- b. No

4.2. Among modern contraceptive methods which ones do you know?

- a. Pills
- b. Injectables
- c. Condoms
- d. IUDS
- e. Tubal ligation
- f. Vasectomy

4.3. Have you heard of emergency contraception that you can use after sex?

- a. Yes
- b. No

4.4. If your answer for Q 4.3 is yes, from where do you heard? if no skip to Q 5.1

- a. Reading from leaflets
- b. Mass media
- c. Health workers
- d. From college

4.5. What type of contraception can be used in an emergency after sex?

- a. Pills
- b. IUCD
- c. Both
- d. Don't know
- e. Other, specify.....

4.6. What is the time limit for taking emergency contraceptive pills after unprotected sex?

- a. Within 12 hours
- b. Within 24 hours
- c. Within 48 hours (2 days)
- d. Within 72 hours (3 days)
- e. Don't know
- f. Other

- 4.7. What is the time limit for having an IUD (coil) fitted after unprotected sex?
- a. Within 12 hours
 - b. Within 24 hours
 - c. Within 48 hours (2 days)
 - d. Within 72 hours (3 days)
 - e. Within 4 days
 - f. Within 5 days
 - g. Don't know
 - h. Other
- 4.8. What is the mechanism of action of emergency contraceptive?
- a. Prevent pregnancy from occurring
 - b. Induce abortion
 - c. I don't know
- 4.9. In what situation EC should be taken to prevent pregnancy?(more than one response is possible)
- a. When forced sex
 - b. When condom slippage/broken
 - c. When there is missed pill
 - d. When unprotected sex without any contraceptive method
 - e. I don't know
 - f. Others, specify
- 4.10. Places where a woman can obtain emergency contraception.
- a. Hospital /health centre
 - b. Community health worker
 - c. private clinic
 - d. Pharmacy
 - e. supermarket
 - f. Does not know
 - g. Other, specify.
- 4.11. How safe do you think emergency birth control methods are for most women?
- a. Very safe
 - b. Unsafe
 - c. Safe
 - d. No response

5. Use of emergency contraception

- 5.1. Have you ever used emergency Contraceptive pills?
- Yes
 - No
- 5.2. If your answer for Q 5.1 is yes, how many times have you used this method during the last year? If no skip to Q 5.7
- Once
 - Twice
 - Three times
 - Doesn't remember
- 5.3. Who recommend it?
- A friend
 - partner (male)
 - Health professional
 - does not remember
- 5.4. Who did provide it to you?
- Doctors
 - Nurses
 - Community health workers
 - Midwives.
 - Pharmacist
 - Other, specify.
- 5.5. Why did you use it?
- The timing miscalculated
 - Condom broke
 - You missed pills
 - Because of forced sex
 - Withdrawal failed
 - Other specify
- 5.6. What were the challenges you faced to get EC?
- Price
 - Not available in pharmacies
 - Fear of stigma
 - Lack of knowledge
- 5.7. Do you have an intention to use EC in the future if the need arises?
- Yes
 - No
- 5.8. If you have an intention to use EC in the case of emergency conditions, from where do you prefer to get the service?
- Hospital
 - Public institution
 - private clinics
 - pharmacy
 - others, specify

6. Sexual Practice and Reproductive health related characteristics

6.1. At what age have you seen your menses for the first time?

Age in completed years_____

6.2. If a woman has regular menstrual cycle when do you think pregnancy is most likely to occur?

- a. During the menstrual flow
- b. The first week of menstrual cycle
- c. The second & third week of menses
- d. I don't know

6.3. Do you have history of sexual practice?

- a. Yes
- b. No

6.4. If yes, at what age did you have the first sexual intercourse? ----- if no stop here

6.5. What was the reason for your sexual practice?

- a. Rape/forced sex
- b. Love
- c. To get some advantage from partner
- d. Other, specify

6.6. How many sexual partners have you ever had in your life time?

- a. One
- b. Two
- c. Three Or more

6.7. Do you have history of pregnancy?

- a. Yes
- b. No

6.8. If yes, how many times? -----if no stop here

6.9. How many children have you that were born to you? -----

6.10. What was your age at first pregnancy?

- a. <15
- b. 15-19
- c. 20+
- d. No response

6.11. Was the pregnancy planned?

- a. Yes
- b. No

6.12. If your pregnancy is not wanted, how do you fail to prevent the pregnancy?

- a. Forced sexual intercourse
- b. Forget to take pills
- c. Condom slippage/breakage
- d. Infrequent sex
- e. Perceived not to become pregnant
- f. Others/ specify

- 6.13. What was the outcome of the pregnancy?
- a. Has been delivered
 - b. Safe abortion
 - c. Unsafe abortion
- 6.14. How many abortions did you have?
- a. Once
 - b. Twice
 - c. Three and more
- 6.15. Place of abortion
- a. Home
 - b. Clinic
 - c. No response