

**KNOWLEDGE AND PERCEPTION OF EMERGENCY
CONTRACEPTIVES AMONG FEMALE ENGINEERING STUDENTS IN A
TERTIARY INSTITUTION BENIN CITY, EDO STATE**

BY

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BENIN CITY**

SEPTEMBER, 2023

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**DEPARTMENT OF NURSING SCIENCE, SCHOOL OF BASIC MEDICAL
SCIENCES, UNIVERSITY OF BENIN, BENIN CITY, IN PARTIAL
FUFILLMENT OF THE REQUIREMENT FOR THE AWARD OF
BACHELOR OF SCIENCE IN NURSING**

SEPTEMBER, 2023

DECLARATION

This is to declare that this research project titled “**KNOWLEDGE AND PERCEPTION OF EMERGENCY CONTRACEPTIVES AMONG FEMALE ENGINEERING STUDENTS IN A TERTIARY INSTITUTION, BENIN CITY, EDO STATE**” was carried out by **AGHOLOR AISOSA SONIA** with matriculation number BMS1702140 in the department of Nursing Science.

SIGNATURE

DATE

CERTIFICATION

This is to certify that this research project by AGHOLOR SONIA AISOSA with matriculation number BMS1702140 has been examined and approved for the award of “**Bachelor of Science in Nursing**”

MRS C.C EDO - OSAGIE
(Project Supervisor)

DATE

Dr. (MRS). R.E. ESEWE
(Head of Department)

DATE

EXTERNAL EXAMINER

DATE

Abstract

Globally, many unplanned pregnancy end up being aborted some in unsafe conditions leading to death and serious complications thus emergency contraception could be crucial in preventing unplanned pregnancy in cities where abortion is illegal. This study aims to assess the knowledge and perception of emergency contraceptives among undergraduate female students in the Faculty of Engineering, University of Benin. Descriptive research design was used for the study. A sample size of 100 was selected from a target population of 135 using simple random sampling technique and a self- structured questionnaire as an instrument of data collection. Analysis was done with statistical package for social sciences (SPSS). Chi-square statistics was used in testing the hypothesis. The study revealed that 5.0% of the respondents have good knowledge, 22.0% have fair knowledge, while the remaining 73.0% have poor knowledge. This shows that the respondents have poor knowledge of emergency contraceptives. The study also shows that 50% of the students have good perception about emergency contraceptives while 50% have bad perception. There was no significant difference between knowledge and perception of emergency contraceptive among the students. It is therefore recommended that there should be adequate creation of public awareness on the importance and proper use of emergency contraceptives.

Keywords: Knowledge, Perception, Engineering, Student, Emergency contraceptive

DEDICATION

This research project work is dedicated to Almighty God for his grace through the period of this research and to my family and friends for their continuous support and encouragement throughout this journey.

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CHAPTER ONE

INTRODUCTION

1.0. Background to the Study

Despite the availability of a variety of contraceptive treatments, the incidences of unwanted and unexpected pregnancies are becoming more common. It is a social and public health issue on a global scale. Because of this, emergency contraceptives are now available, and their use can help prevent and lower the occurrence of this disease worldwide. The phrase "Emergency contraception" describes procedures used to avoid pregnancy after unprotected sexual activity. It is sometimes known as "the morning after pill" or post-coital contraception. They should be used between three to five days of having an intimate relationship, or sooner (WHO, 2021). Due to its special ability to aid girls and women of reproductive age in preventing unintended births, it has been referred to as the reproductive health field's best hidden secret. By blocking or delaying ovulation, it prevents conception and does not cause an abortion. It cannot end an already-existing pregnancy or harm an embryo in development (WHO, 2018). It is useful in situations where barrier measures have failed, such as when condoms have slipped, broken, or were misused; when sexual assaults have occurred; when coitus interrupts have failed; when two or more oral contraceptive pills have been missed in a row; or when sexual activity has just occurred unexpectedly without the use of contraception (Hammoud et al., 2020; Demissie et al., 2020). When used, it can successfully prevent up to 95% of unintended pregnancies. Cleland et al. (2018) claim that it aids in lowering the rate of mortality and morbidity brought on by abortions caused by unintended pregnancies. Every year, 74 million women worldwide who reside in LMICs (poor and middle-income countries) become pregnant unintentionally. As a result, there

are 25 million unsafe abortions performed each year and 47,000 maternal fatalities (WHO, 2019). With an annual incidence rate of 29%, the Sub-Saharan Africa region sees more than 14 million unintended pregnancies (Ameyaw, 2019). Bearak et al., 2018, made observed that about 44% of all pregnancies world wide are unintenand a number of them ends up as abortions. An estimated 56 million induced abortions took place annually in 2010–2014, which translates to an annual abortion rate of 35 for every 1000 women aged 15–44 years. The Sub Saharan Africa constitutes roughly 66% of maternal deaths(WHO,2018).

The young population in Nigeria is predisposed to unintended pregnancies due to early puberty and first sexual activity, sexual activity experimentation, multiple sexual partners, alcohol and illicit drug use, socioeconomic issues, coercion, easier access to sex-glorifying media, peer pressure with less parental control, and a lower likelihood of using contraception. According to the Nigeria Demographic and Health Survey, 2018, 19% of women start having sex before the age of 15, while 57% start before the age of 18. According to the survey, the typical age of the first sexual encounter is 17.2 years for women and 21.7 years for men. Due to the high prevalence of occasional premarital intercourse, which might be avoided by using EC, university students come into the sexually active age category and constitute a high-risk population for unwanted pregnancy (Shirefaw et al., 2017).

Unintentional sexual contact is the main factor in induced abortions and unwanted pregnancies in Nigeria. In Nigeria, one out of every five pregnancies is unintended, and these pregnancies are typically unwelcomed. In Nigeria, 10% of women between the ages of 15 and 49 who had an unintended pregnancy attempted an abortion. It has been reported that it is a significant factor when a pregnancy is undesirable and carried out due to the fear of societal consequences from an unmarried pregnancy or childbirth (Onebune & Bello, 2019). There is relatively little

knowledge and perception of emergency contraception among female undergraduates at the University of Ghana in Ghana, according to a study that was done there. This prompted Ghana's health ministry to include emergency contraception in its standard and policy for reproductive health care, according to the Planned Parenthood Association (2018).

Tertiary education gives students opportunity for greater independence from home, with new friendship and romantic or sexual partner. The new behaviour is often hinged on curiosity, peer pressure and sexual maturation. The result of such sexual experimentation includes unplanned and unwanted pregnancy that lead to abortion (mostly unsafe). Ugbuji et al., 2017, observed that different studies in Nigeria also shows a high rate of sexual activity as well as limited knowledge and perception of emergency contraceptive amongst undergraduate students. Okafor & Duru, (2018) observed that this results in an increased rate of unwanted pregnancies and the attendant of unsafe abortion. The level of prostitution and all form of promiscuous behaviour associated with students of tertiary institutions and other anti-social sexual behaviours coupled with the widespread of sexually transmitted diseases and teenage pregnancy amongst undergraduate students is of great concern to the society. Nibabe & Mgutshini, (2019) states that the absence of contraceptive service in tertiary institution has further led to increased rates of unwanted pregnancy, unsafe abortion, and STIs among undergraduates of these institutions. Zainab *et al*, (2017) highlighted that abstinence offers total defence against HIV, STIs, and pregnancy.

An unintended pregnancy poses a major challenge to the reproductive health of young adults in developing countries; hence there is a need to improve on their knowledge and perception of contraceptive. Gold *and* Schein, (2019) states that among the various forms of contraceptives, emergency contraceptives are the only ones that can be used after sexual intercourse, offering second chance to prevent unwanted pregnancy. Emergency contraceptives

pills have proven to be very effective if used correctly as a pills method of preventing pregnancy after unprotected sexual intercourse. The other contraceptive methods include Yuzpe and copper bearing intrauterine device (IUDs).

Emergency Contraceptive pills can be obtained over the counter from patent medicine and pharmacy stores. While abstinence is the most effective way to avoid pregnancy, Emergency contraceptive are as much as 99.7 percent effective in preventing pregnancy, when used correctly. Trussell, (2017) opined that although emergency contraception can prevent undesired pregnancies, they cannot shield users from Sexually transmitted infections (STIs). Large proportions of female undergraduates are adolescents (aged between 10 years and 19 years) and are a vulnerable group for unwanted pregnancy. This is because of their poor knowledge and usage of routine contraception despite their regular sexual activity. Some of them may even engage in commercial sex to augment their finances in school.

Despite the increase in sexual activity among this population, there is no formal means of sexual education for the adolescents except perhaps those in medical education. This, therefore, leaves this high risk group with insufficient and sometimes wrong knowledge of emergency contraception. Therefore the gap in research which gave birth to this study to assess the knowledge and perception of emergency contraception among female undergraduates engineering students who are not exposed to medical education.

1.1 Statement of the Problem

Unwanted pregnancies and unsafe abortions have become serious public health challenges worldwide, particularly among female teenagers in industrialised and developing nations (Manortey et al., 2016). Young, single women are more likely to get risky abortions (Issah, 2021) Teenagers and unmarried women have fewer access to reproductive health information and

services and are more likely to become pregnant unintentionally, which typically leads to unsafe or unsafe abortions as a result of some type of sexual coercion and violence.

Behavioural factors that frequently put the adolescent at greater risk of unintended pregnancy include sexual experimentation and risk taking, as well as limited ability to plan ahead. The nature of relationships and frequency of intercourse is often different during adolescent years compared with later in life. Shorter relationships, sometimes with long intervals in between, are not uncommon, and sex may be infrequent and sporadic. Grasier and Gabbie, (2019) opined that this may lead to reluctance to adopt a regular family planning method or make it harder to plan to use one. Farquharson and Stephenson, (2018) states that for many youth, sex is largely unplanned and sporadic, yet few young people know about the option of emergency contraception after unprotected intercourse. According to Allison et al. (2017), in developing nations, young women may turn to unsafe abortions due to a lack of information and access to emergency contraception, which significantly increases maternal mortality and morbidity. However, by making emergency contraceptives available to adolescents, we can help prevent unintended pregnancy. Preventing unplanned pregnancies reduces the chance of adolescent pregnancy.

Despite the fact that the Nigerian government has introduced EC to the general population the issue of unintended pregnancy still exists. Bruyn and Mallet, (2019) states that this could be due to limited information as sexual education is not taught in schools and is a taboo discussion topic at home, and negative attitudes among the adolescents/young adults who are primarily those in need of EC. Hence the need for this study to assess non-medical undergraduate female students (Faculty of Engineering) knowledge and perception of EC to be able to draw a line as to whether

their knowledge could affect their practice; thereby reducing unwanted pregnancies and unsafe abortions which poses a threat to their life and health.

1.2 Aim of the study

This to assess the knowledge and perception of emergency contraceptive amongst female engineering students in university of Benin City

1.3 Objectives of the study

- To assess the knowledge of emergency contraceptive among female engineering students in University of Benin, Benin City.
- To assess the perception of emergency contraceptive among female engineering students in University of Benin City.
- To ascertain if the knowledge of EC among female undergraduates are affected by their age.

• **1.4 Research questions**

- What is the level of knowledge of female engineering students in University of Benin about emergency contraceptives?
- What is the perception of female engineering students in University of Benin about emergency contraceptive?
- Does age affect the knowledge of EC among female undergraduates of university of Benin city

1.5 Hypotheses

- There is no significance difference between knowledge and perception of emergency contraceptive among female engineering student in university of Benin City.

- There is no significant relationship between the knowledge of emergency contraceptives among female engineering students and their age.

1.6 Significance of The Study

This study is intended to address a fundamental issue for society as a whole, thus it is hoped that it will be significant from both a theoretical and a practical standpoint. The study will theoretically add to the body of knowledge that helps female undergraduate engineering students comprehend the scope and effects of inadequate usage of emergency contraception. In practically, the study's data will be used by upcoming researchers to examine further strategies for lowering unintended pregnancies, maternal mortality and morbidity, and sexually transmitted infections. The information gleaned from this study is intended to raise public awareness of the value and appropriate application of emergency contraception. However, the study is anticipated to produce workable policy ideas that will improve or address the sexual and reproductive health of female undergraduates and will support the use of effective emergency contraception by young people and the society at large. Thus, the undergraduate students become more knowledgeable of the importance of emergency contraceptives, the sources and the use of emergency contraceptives. A study of this nature will provoke policy debates aimed at awakening the government and its agencies on the importance of adequate inclusion of sexual and reproductive education on primary, secondary and tertiary institutions' curricula. A good knowledge of contraception and reproductive health strategies will equally help in the management of population control and human resource development in Nigeria.

1.7 Scope of the Study

The scope of this study is confined to the knowledge and perception of female engineering students in University of Benin about emergency contraceptives. The population will

be randomly selected from the eight departments in the faculty of engineering (computer, production, mechanical, structuring, chemical, electrical electronics, civil, petroleum engineering) from 100 to 500level.

1.8 Operational Definition Of Terms

Knowledge: This is the students' level of awareness and understanding about emergency contraceptives, the methods and duration of use.

In measuring level of knowledge, it is categorized as "good" (indicating a score above the average of correct responses), "fair" (an average score of correct responses) or "poor" (indicating a score below the average of correct responses).

Perception: This is defined as the students views on emergency contraceptives which can either be positive or negative.

In measuring perception, it is categorized as "good" (indicating a score above the average of correct responses, "bad" (indicating a close score to the average of correct responses) or undecided (indicating a score below the average score of correct responses).

Emergency Contraceptive(EC): This is a medication or method used by students in order to prevent pregnancy after unprotected sexual intercourse.

Abortion This is the termination of a pregnancy

STIs: Sexually transmitted infections which can be transferred from one person to the other through sexual intercourse.

Unwanted Pregnancy : that is not planned by one or both biological parent.

CHAPTER TWO

LITERATURE REVIEW

2.0 Concept Of Contraception

According to WHO, (2011) contraception is the procedure or the use of various devices, drugs, agents, sexual practices or surgical procedures to prevent any unplanned pregnancy. Contraception practice is basically for pregnancy planning, limiting the number of children and controlling population. There are many contraceptive drugs and devices that can be used for contraception. For better understanding of these contraceptives, they are grouped into two broad forms; natural and artificial. However for the purpose of this study, concentration is on Emergency Contraception.

Overview of Emergency Contraception

Emergency contraception is defined as a medicine or device which is used to prevent pregnancy after unprotected intercourse (including sexual assault) or after a recognized contraceptive failure. It has alternatively been called post-coital contraception or „the morning after pill“. These terms are baffling and imply that Emergency contraceptive pills can only be taken immediately, which is incorrect. They can be used; with decreasing efficacy, for up to five days post intercourse. (WHO, 2021).

Magesa, (2017) stated that emergency contraception (EC) could also be referred to as a group of birth control method that, when used within demarcated time limits after unprotected intercourse, can prevent an unwanted pregnancy. It is intended for occasional, rare or emergency use only, but not as a regular form of contraception. Idoko et al., 2018 opined that situations that can cause this include failure of barrier methods such as spillage, breakage, or misuse of condom, sexual assaults, failed coitus interruptus, or two or more consecutive missed oral contraceptive

pills. WHO, (2012) states that emergency contraception is effective only in the first few (up to five days) days following intercourse before the ovum is released from the ovary and before the sperm fertilizes the ovum. Brodziak, (2017) states that emergency contraception principally obstructs ovulation, interrupts follicular development, and/or obstructs the development of the corpus luteum. EC could also be known to be a method of contraception that can be used to prevent pregnancy in the first few days after having unprotected sexual intercourse. Magesa, (2017) states that it is intended for emergency use following unprotected sexual intercourse, contraceptive failure or misuse (such as forgotten pills or torn condoms), rape or coerced sex. Desta and Regassa, (2018) states there are various methods of emergency contraception including hormonal contraceptive pills (also called morning-after pills), intrauterine contraceptive devices and mifepristone. Okoroiwu et al .,2021 opined that the Emergency Contraceptive pill, is further divided into two types, one type contains a combination of Estrogen and Progestin and the other form of pill contains Progestin only while the orthodox contraceptive methods are active before or during penile-vaginal intercourse, emergency contraception (EC) is a post coital method of birth control with the intended for use in the event of contraceptive method failure, unprotected intercourse or sexual assault. Muhammad, (2016) states that although awareness of emergency contraception has been growing over the past decade post coital methods of birth control have been in use for several years before now.

Emergency contraception varies in its usage with the woman's age. Contraception use among currently married women for any modern methods has seen some improvement both for adolescents (15-19 years) and youth (20-24 years). Literature indicates that EC is lowest among the youngest women age 15-19 (19 percent), most probably because they are in the early stages of their reproductive life or striving to have a health family building (GSS, 2013). Magesa, (2017)

states considerably, much research suggests that EC reduces the risk of pregnancy of women who have had unprotected sexual intercourse by approximately 75 % to 89% if taken within 72 hours after engaging in unprotected sexual intercourse even though it can go beyond 72 hours but in decreasing potency. Emergency contraception is meant to be used as a backup means or as a standby of post coital contraception when the primary method fails or intercourse is unplanned or unintentional such as in assault and rape. Griggs, (2016) opined therefore, to understand the effectiveness of EC, the probability of pregnancy following unprotected intercourse must first be determined. Magesa, (2017) brought to knowledge that emergency contraception prevents pregnancy in the same way as other hormonal contraceptives such as pills, injectable, Depo Provera or even during breast feeding by delaying ovulation, obstructing fertilization or inhibiting implantation of the fertilized egg by varying endometrial receptiveness, or possibly causing reversion of the *corpus luteum*.

Historical Background of Emergency Contraception

The roots of modern emergency contraception dates back to the early 1920s, when researchers initially proved that the introduction of estrogen into the body interfere with pregnancy in mammals. Veterinarians were the earliest people to apply this finding, administering estrogens to dogs and to horses that had mated when their owner had not wanted them to. Regardless of scattered reports of clinical use of post coital estrogens in humans in the early 1940s, some recordings and documentation were still kept. Cheng, Che, and Am, (2012) highlights that initial documented cases were not available till the mid-1960s, when doctors in the Netherlands used the veterinary practice of post coital estrogen administration to a teenager (13-year-old) who was raped at mid-cycle. Cheng *et al*, (2012) states that then in the early 1970's a Canadian physician named Albert Yuzpe and his colleagues began studies (in 1972) on

this combined regimen, guided by their observation that a single dose of 100 mcg of estrogen combined with 1.0 mg of the progestin dl-norgestrel brings about endometrial changes that are incompatible with implantation. The "Yuzpe method," as it came to be known, then replaced the high-dose estrogen formulations, basically because it had less incidence of side effects, it was also realized that the frequently used DES caused vaginal cancer in the daughters of women who had taken it to prevent miscarriages.

The Yuzpe regimen since then became extensively used. It was a combination of hormone formula and was used to replace the high-dose estrogen emergency contraception methods of the 1960's. Later in the 1997, Doctors began to offer the copper IUD as the only non-hormonal method of emergency contraception. Charlotte, (1996) states that with the intent to encourage manufacturers to make emergency contraceptives available, the FDA concluded that certain combined oral contraceptives containing ethinyl estradiol and norgestrel or levonorgestrel are safe and effective for use as post coital emergency contraception. Women typically received either conjugated estrogens, the steroidal estrogen ethinyl estradiol or the non-steroidal estrogen diethylstilbestrol (DES). Magesa, (2017) states that today, in places where high-dose estrogens are still used, they are administered in the so-called 5x5 treatment: 5 mg of ethinyl estradiol per day for five days. According to Magesa (2017), two other methods have been investigated: danazol and mifepristone. Danazol, a synthetic progestin and anti-gonadotropin, was first used as an emergency contraceptive in the early 1980s. Mifepristone, more commonly known as RU-486, is a potent anti-progesterone registered in four countries as an abortifacient.

2.1 Types of Emergency contraceptives

Yuzpe method/regimen

This is a method of emergency contraception that uses a combination of ethinylestradiol and levonorgestrel. Trussell et al., 2019, opined that in a meta analysis of eight studies regarding the regimen, more than 3800 women prevents about 74% of pregnancies. The recommended dosage using this method is that two pills should be taken as the first dose within 72 hours after unprotected intercourse and it should be followed by two other pills 12 hours later.

Levonorgestrel

This emergency contraceptive regimen consists of two doses of 0.75 mg of levonorgestrel taken 12 hours apart, starting within 48 hours after unprotected intercourse. Although progestin were among the first drugs used in post coital contraception, few studies of the emergency levonorgestrel regimen have controlled for cycle day of unprotected intercourse. Trussell et al., 2017, states that Levonorgestrel is available in a strip of 10 pills containing 0.75 mg each for this use and a four-pill strip, this emphasizes that the pills are intended for sporadic or emergency contraception.

Mifepristone

Mifepristone, a synthetic steroid, is an antagonist to glucocorticoid and progesterone receptors. At low doses, mifepristone binds to the intracellular progesterone receptor. At high doses, it blocks the glucocorticoid receptor affecting the hypothalamic-pituitary-adrenal axis and increasing circulating cortisol. It has a higher affinity for the glucocorticoid II receptor than it does for the glucocorticoid I. Mifeprex tablet each contain 200mg of mifeprestone, a synthetic steroid with antiprogesterational effects. The tablets are light yellow, cylindrical and biconvex in

shape and it is intended for oral use only. Greene, (2016) emphasized that it is rapidly absorbed with a peak plasma concentration of 1.98mg/l occurring in about 90 minutes after ingestion. Greene, (2016) clearly states that more recently, in two studies evaluating mifepristone as an emergency contraceptive, the regimen consisted of 600 mg of the drug taken in a single dose within 72 hours after unprotected intercourse.

Intrauterine Contraceptive Device

Intrauterine contraceptive device (IUD) is a device inserted into the uterus (womb) to prevent pregnancy. The IUD can be a coil, loop, triangle, or T in shape made of plastic or metal. Magesa, (2017) .An IUD is inserted into the uterus by a healthcare professional.

2.2 Mechanism of Action of Emergency contraceptives

Emergency contraception primarily obstructs ovulation, interrupts follicular development, and/or interferes with the maturation of the corpus luteum, considering that all pregnancies were attributed to intercourse occurring during a 6-day period ending on the day of ovulation. Physiologically, sperm are viable in the vagina for up to 5 days in comparison with eggs, which must be fertilized within approximately 1 day of ovulation. Gemzell-Danielsson, Berger and Lalitkumar, (2013) clarified that the day of ovulation may vary from cycle to cycle for the same person and from person to person.

White *et al.*, (2015) states the effectiveness of combined hormonal or progestin-only emergency contraception depends on the timing in the cycle when emergency contraception is used. Results of studies weighing the effect of emergency contraception on the endometrium have been contradictory. Gemzell-Danielsson *et al.*, (2013) opined that some studies have suggested histologic or biochemical modifications in the endometrium after emergency-contraception treatment, adding that the pills may act by damaging endometrial receptivity to the

implantation of a fertilized egg. While on the other hand, other studies have also demonstrated that there is little or no effect on the endometrium and raised the question of whether the endometrial changes detected would be sufficient to prevent implantation. White *et al.*, (2008) states that yet still other suggested mechanisms, such as alteration of sperm or egg transport, meddling with the fertilization process, and/or cervical mucus changes, have not been proved by clinical data.

2.3 Side Effects

Side effects include nausea and vomiting, abdominal pain, breast tenderness, headache, dizziness, and fatigue. These usually do not occur for more than a few days after treatment, and they generally resolve within 24 hours. Trussell *et al.*, (2014) states that levonorgestrel regimen has a significantly lower incidence of nausea and vomiting than the combined regimen; according to a randomized controlled trial conducted by WHO, progestin-only ECPs are associated with an incidence of nausea 50% lower and an incidence of vomiting 70% lower than that for combined ECPs.

2.4 THEORETICAL FRAMEWORK

The theoretical framework utilized in this study is the Health Belief Model. The HBM is a cognitive, interpersonal framework that views humans as rational beings who use a multidimensional approach to decision-making regarding whether to perform a health behaviour. It is a psychoanalytical model that attempts to explain and predict health behaviour. This is done by focusing on the attitude and belief of the individual.

The HBM was first developed in the 1950s by social psychologists Hochbaum, Rosenstock and Kegels working in the U.S. Public Health Services. The model was developed in response to the failure of a free tuberculosis (TB) health screening program. Later uses of HBM were for

patients' responses to symptoms and compliance with medical treatments. Wayne, (2016) highlighted that the HBM suggests that a person's belief in a personal threat of an illness or disease together with a person's belief in the effectiveness of the recommended health behavior or action will predict the likelihood the person will adopt the behavior. The Health Belief Model is a framework for motivating people to take positive health actions that uses the desire to avoid a negative health consequence as the prime motivation. For example, HIV is a negative health consequence, and the desire to avoid HIV can be used to motivate sexually active people into practicing safe sex. Similarly, the perceived threat of a heart attack can be used to motivate a person with high blood pressure into exercising more often (Resource Center for Adolescent Pregnancy Prevention, n.d.).

According to this model, a person must hold the following beliefs in order to be able to change behaviour;

- Perceived susceptibility to a particular health problem
- Perceived seriousness of the condition
- Belief in effectiveness of the new behaviour
- Cues to action
- Perceived benefits of preventive actions
- Barriers to taking actions

This theory is relevant to this research topic because according to the Health Belief Model, individual perceptions such as perceived seriousness of pregnancy, perceived benefits and perceived barriers are more likely to affect the preventive actions such as knowledge of ECPs which can prevent a specified condition such as unplanned pregnancy. In addition, perceived barriers such as negative consequences of using contraception. This dimension

includes factors such as perceived side effects of hormonal contraception (i.e. weight gain or mood swings), physiological risks of hormonal contraceptives (i.e. blood clots), inconvenience (i.e. having to remember to take a daily pill), and limited access to methods (i.e. having to obtain a prescription for OC refills) All of these are potential ECPs disadvantages and have been found to make them have a wrong perception about ECPs.

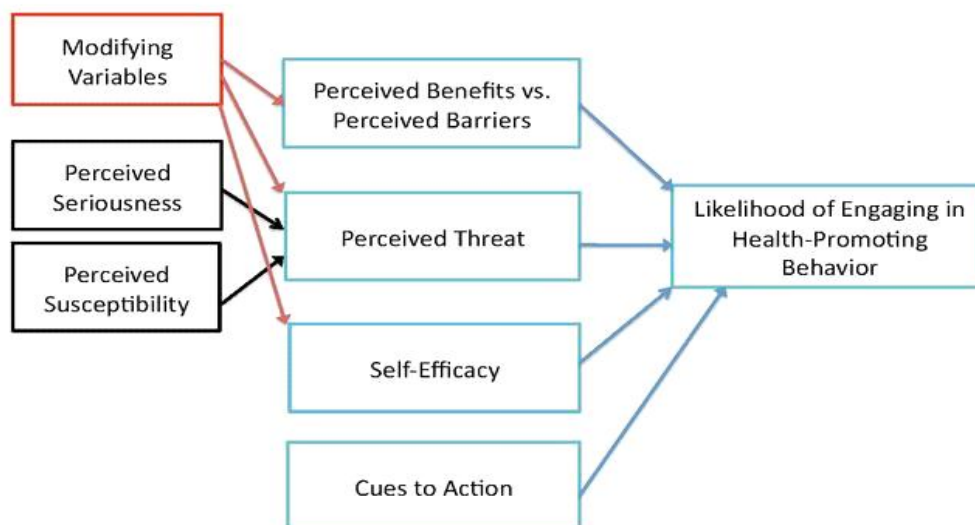
Difficult access to sexual and reproductive health services (SRH) and providers' negative perception can prevent use of services. In contrast, the perceived benefit of communicating with parents may result in more effective use of contraception. This model promotes an ability to weigh benefits and make changes when confronting a health risk. Brindis and Davis, (2010) sighted an example of a scenario for this model would be: a young woman having unprotected intercourse who must first perceive that sexual activity involves consequences such as an unintended pregnancy (susceptibility); then, that the consequence could be negative, such as having a child and dropping out of school to support her child (severity); and finally, that the prescribed interventions such as using contraception and finishing school before becoming a parent are useful (benefits) and outweigh potential negative side effects, such as weight gain from contraceptive use or potential loss of social status by delaying parenthood.

The Health Belief Model provides a framework for understanding the potential influence on an individual's decision to make use of available health services. Although the model provides a framework for understanding factors operating at the individual level to influence the decision to use reproductive health services, it does not examine factors operating beyond the individual level, nor does it include the role of community and health system characteristics in shaping this decision.

Application of Theory to Study

This model, help understand that, an individual will only take part in a healthy behaviour only when she knows and believes that the expected outcome will contribute to her healthy living. Furthermore, a lady who knows and believes that prevention is better than cure, and is aware that the preventive measures to unwanted pregnancy (contraception) will not be harmful to her, will adopt a positive perception and knowledge of ECPs and guide against or prevent going through the rigorous process of unsafe abortion or giving birth to an unwanted child.

The Health Belief Model



Health belief Model

2.5 EMPIRICAL REVIEW

Knowledge of Emergency contraceptive among students

Adolescent sexual behaviour has been recognized as an important health, social and demographic concern in the developing world with the knowledge and perception of ECPs being

an important indicator of sexual health among adolescents and young adults. ECPs knowledge has increased worldwide but in Nigeria, especially among the undergraduates, there seems to be a persistent gap between high sexual activity and perception of ECPs in the presence of high ECPs awareness. Studies have been conducted around the globe to evaluate the knowledge young people have about contraceptives. Generally, these studies reveal higher knowledge of contraceptive methods among young people in Europe compared to developing countries in Asia and Africa. This marked difference has over the years caused serious concerns which have led to the implementation of health programs to increase contraceptive knowledge and perception in developing countries, with different levels of success.

Jha(2020)conducted a study on the knowledge and use of emergency contraceptive pills among Bachelor's level female students of Kathmandu Valley,Nepal.A descriptive cross sectional study was undertaken using 347 female students who were studying at the Bachelor's level.A random sampling technique was used to select study participants and structured self administered questionnaire was used.The findings from this study

A study on the assessment of the knowledge of emergency contraceptives was conducted among female undergraduates students in the unity university of Ethiopia by Abenet et al., (2020).A cross sectional quantity survey using stratified random sampling was conducted among 276 undergraduate students by administering a researcher questionnaire.The study revealed that majority 159(72.4%) of the participants had a good knowledge about emergency contraceptives.The authors recommended that strengthening information, education,communication in the university or colleges on sexual reproductive health with emphasis on the various methods of family planning will be useful in reducing the prevalence of unwanted pregnancies.

Nwankwo et al.,(2021) conducted a study on the level of knowledge towards emergency contraceptives among female undergraduates in a tertiary institution in kaduna,Nigeria.A cross-sectional descriptive study was carried out a pretested interviewer administered questionnaire. A total of 289 female students were selected using a multi stage random sampling technique.The result from the study showed that only 37.9% of the respondents were aware of emergency contraceptives and the commonest source about EC was the media(63.2%).The study showed poor knowledge about emergency contraceptives. The authors recommended the use of awareness programmes that are being organized by the school as strategy to talk about emergency contraceptives and other various methods of contraception.

Perception of Emergency contraceptives among students

A study was conducted by Deressa and Yang (2021) on the perception of emergency contraceptive among undergraduate female college students in Addis abba, Ethiopia.cross-sectional study design was used and data were collected by structured pre-tested questionnaire that 456 students were randomly selected.A self administered questionnaire was used in this study.The result from this study revealed that about 256(56.1%) of study respondents showed a ‘positive attitude’ towards emergency contraceptive.

Nketia et al.,(2022), conducted a study to examine the perception towards Emergency contraceptives among reproductive women between the ages of 15 and 24 in the East Gonja Municipality of Ghana.A descriptive cross-sectional study was used.A sample size of 295 students was used for the study.A self structured administered questionnaire was used to collect data for the study.The results from the study revealed that more than half of the respondents who reported prior awareness of Ecps showed a negative attitude towards it.The authors from their findings from the study recommend the need for comprehensive sexual and reproductive health

education and improved access to modern contraceptives among adolescents and youths in the East Gonja Municipality region of Ghana.

Akah and Aniwada(2022) conducted a study on the perception and misconception among women of reproductive age in the University of Nigeria Nsukka in Enugu State,Nigeria.A Descriptive cross sectional study using pretested, interviewer administered questionnaire was employed. Simple random sampling technique was used to select a representative sample of 350 age 15-49 years.The results from the study revealed a positive perception level of 83.3% regarding the contraceptives.The findings from the study suggests the need for more education and enlightens on contraceptives in order to reduce the negative effects or misconceptions surrounding its uses.

Age and Its Influence On Knowledge Of Emergency Contraceptives

Sendor and Fikadu (2021) conducted a study on the utilization and the associated factors of Emergency contraception among female college students in Addis abba,Ethiopia.An institution based cross sectional design was used in the study.A sample size of 271 students was used during the study.The sampling technique was stratified random sampling in order to select study participants from the source population.The results from the study revealed that age those who are less than 20years(35.5%) and being sexually active is one of the factors of emergency contraceptive utilization.

2.6 SUMMARY OF RELATED LITERATURE

Prevailing knowledge on EC types, effectiveness, and mode of action, side-effects and contra-indications have been explored, their perception on the use of EC and the latest information on the method have also been reviewed in this chapter. The Health belief model was considered most appropriate for this study as it is a framework for motivating people to take

positive health actions that uses the desire to avoid a negative health consequence as the prime motivation. The findings of the research will either confirm or refute these and many other literatures reviewed. The next chapter is the methodology of the study.

CHAPTER THREE

RESEARCH METHODOLOGY

This chapter elaborate on the methods and procedures that will be employed in this research. This will be discussed under the following headings: Research design , Research setting, Target population, Sample size and sampling techniques, Instrument for data collection Validity and Reliability of the instrument , Method of data collection , Method of data analysis, Ethical consideration.

3.0 Research Design

In the current study, the researcher adopted a cross sectional descriptive research design to gain more insight into the knowledge and perception of emergency contraceptives among female engineering students in University of Benin.

3.1 Research Setting

The study was carried out in the Faculty of Engineering University of Benin, Ugbowo campus. The University is situated in Ugbowo community, Egor Local Government of Edo state, Nigeria. The area of study is the Faculty of Engineering, University of Benin, Ugbowo campus, Benin City, Edo State, Nigeria. Edo State is an inland state in the Central southern part of Nigeria. It was created on 27th August, 1991.

The University of Benin is situated on 1,748 hectares of land along Benin-Lagos highway. It shares a main boundary with University of Benin Teaching Hospital and Isiohor community. The University was founded in July 1970. It started as an institute of technology and was accorded

the status of a fully-fledged university by National University Commission (NUC) on 1st July 1971. It has a population of about 43,000 students made up of full time and part time student. The student's population includes various ethnic groups. At present it has thirteen (13) Faculties namely, School of Basic Medical Science, School of Dentistry, School of Medicine, Faculty of Physical Science, Life Sciences, Pharmacy, Arts, Agricultural Science, Social Science, Management sciences, Education, Engineering and Law. University of Benin is one of the first generation universities in Nigeria.

The Faculty of Engineering was established in November 1970. The faculty presently has eight departments namely, chemical, civil, electrical and electronics, petroleum, production, mechanical, structural and computer engineering .

3.2 Target Population

The target population included all the female undergraduate students in the faculty of engineering, between the ages of sixteen to thirty (16-30) years. It comprised of one hundred and thirty-five (135) female students from 100 to 500 levels from the eight departments which are chemical, civil, electrical and electronics, petroleum, production, mechanical, structural and computer engineering.

3.3 Sample Size Determination

A total survey was used to select the female undergraduate students in faculty of engineering, between the ages of sixteen to thirty (16-30) years that were present in the faculty as at the time the questionnaires were administered. A total one hundred (100) respondents were recruited for the survey using the Taro Yamane (1967) formula for estimation:

$$n = 1 + N (d)^2$$

Where n = sample size

N = population size

d= level of precision (assumed to be 0.05 at 95% confidence interval)

$$N= 135$$

$$d= 0.05$$

Thus, $n= 135/1+135 (0.05)^2$

$$n= 135/1+135 (0.0025)$$

$$n=135/1.3375$$

$$n=100$$

$$10\% \text{Attrition rate } 10/100 \times 100 = 10 ,$$

$$100 + 10 = 110$$

3.4 Sampling Technique

The students was selected through simple random sampling technique from a representative sample 100 female students from the nine different departments in the faculty.

3.5 Instrument For Data Collection

Copies of a well-structured questionnaire titled “Knowledge and Perception of Emergency Contraceptive among female Engineering student of Benin, Benin City” was used as research instruments by the researcher. The questions were carefully crafted, sequenced and constructed in a bid to get an in depth information that is useful and relevant to the study from the

respondents' understudy. Both closed and open-ended questions were used. Open ended questions was used to exonerate more information from the students that is personal while the close ended questions was used to elicit short answers to the questions in the questionnaire.

The questionnaire that was constructed comprises of Three sections.

SECTION A: Demographic data of the participants.

SECTION B: Knowledge of Emergency contraceptives

SECTION C: Perception of Emergency contraceptives

3.6 VALIDITY: The content and face validity was ensured by the supervisor. Due correction will be made before it will be distributed.

The Level of knowledge of Emergency contraceptive was assessed based on the ability of the respondents to correctly answer questions that probe their understanding of emergency contraceptives. A score of 1 was assigned to each question that aim to ascertain respondent's knowledge of emergency contraceptives bringing the total score to 13 marks (for 13 questions in section B of the questionnaire: Knowledge of Emergency Contraceptive).A score range 1-4 by respondent was delineated as good level of knowledge of Emergency contraceptives,5-8 was delineated as fair level of knowledge while a score of 9-13 was considered as poor level of knowledge of Emergency contraceptive.

Perception of emergency contraceptives was also assessed and it was by assigning a score 5 as Undecided about perception of emergency contraceptives,2-4 as bad perception of Emergency contraceptives while 1-3 as good perception of emergency contraceptives.

3.7 Reliability

A pilot study was carried out among fifteen (15) female students of the Faculty of life science, university of Benin using the questionnaire.

3.8 Method of Data Collection

Data was obtained through pre-determined questions given to the respondents. The objectives of the questionnaire was to elicit as much related information as possible from the respondents. It contain enough questions to be able to meet survey objectives but not so many as to be off-putting to respondents. The questions was enough to elicit the information that is required but short enough to encourage an optimum response rate.

The questionnaires was distributed to female Engineering in University of Benin from 100level to 500level for few minutes there after collected. Assistance was being utilized to distribute and retrieve the questionnaires.

3.9 Method Of Data Analysis

The researcher used descriptive analysis. The researcher used Statistical Package for Social sciences (SPSS) version to analyze the data and data gathered was organized, analyzed and described to give meaning to the research findings. Brief descriptions of the findings included graphs and tables to give a much clearer picture of the outcomes and detail meanings to the findings for an easier understanding and interpretation.

3.10 ETHICAL CONSIDERATION

The principle of voluntary participation, maintenance of anonymity and confidentiality was maintained throughout this study. The Engineering students were not forced to participate in the study and their views and interests was handled with utmost confidentiality. A written permission was obtained from the ethics and research committee of University of Benin.

The researcher maintained the following ethical consideration during the research exercise.

Confidentiality: The researcher ensured that information provided by respondents was treated with utmost confidentiality, hence, no name or addresses were requested for, in the questionnaire.

Self-determination/Voluntary participation: The researcher ensured that the respondents had the right to voluntarily decide whether to participate in the study or not, without the risk of incurring any penalty or prejudicial treatment. They were given the right to decide at any point during the study to withdraw their participation or refuse to provide any information on any point that is not clear to them.

Plagiarism avoided: All authors used in this study were appropriately cited both in the body of the work and at the reference page.

The purpose and benefit of the study was explained to the respondent to obtain their informed consent.

Participants: All participants were duly interviewed and were reassured of no risk attached for participating in the study.

CHAPTER FOUR

DATA ANALYSIS AND INTERPRETATION

This chapter presents the data analysis, testing of hypothesis and answering of the research questions based on responses obtained from the questionnaires administered to One hundred Undergraduate Students of the University of Benin. The respondents were randomly sampled for the study. Frequencies, percentages presented in tables as well as pie charts were used to analyze the data. Chi-square was used to test the stated hypotheses of the study.

4.1 Demographic data of respondents

Table 4.1: Demographic data of respondents

Variables	Attributes	Frequency	Percentage
Age	<18yrs	9	9.0
	19-24yrs	78	78.0
	25-30yrs	13	13.0
Study Level	100	15	15.0
	200	11	11.0
	300	25	25.0
	400	7	7.0
	500	42	42.0
Ethnic group	Igbo	17	17.0
	Yoruba	10	10.0
	Benin	31	31.0
	Others	42	42.0
Religion	Christianity	100	100.0
Residence	On campus	37	37.0
	Off campus	63	63.0
Marital status	Single	95	95.0
	Married	3	3.0
	Widow	2	2.0

Table 4.1 shows the demographic data of respondents. 9.0% of the respondents are <18years, 78.0% of the students are 19-24years, 13.0% are 25 - 30years. 15.0% of the students in this study are in 100 Level, 11.0% are in 200 Level, 25.0% are in 300 Level, 7.0% are in 400 level, 42.0% are in 500 Level. 17.0% of the respondents are Igbos, 10.0% are Yorubas, 31.0% are Benin, while 42.0% are from other tribes. All the respondents (100.0%) in this study are Christians. Majority 95.0% of the respondents are single, 3.0% are married, while 2.0% are widows.

RESEARCH QUESTION ONE: What is the level of knowledge of female engineering students in University of Benin about emergency contraceptives?

Table 4.5: Knowledge of the Student on ECPs

	Freq uenc y	Perc enta ge
Do you know any method use to prevent pregnancy after unprotected sex?		
Yes	79	79
No	21	21
Knowledge of Methods of protection		
Taking contraceptives	66	86.8
Vaginal wash	11	14.5
Abortion	20	26.3
Inserting some stuff into the vagina	12	15.8
Taking some medicines	29	38.2
Consequences of having sex without protection		
Pregnancy	89	89.9
HIV/AIDS	76	76.8
Psychological trauma	38	38.4
School dropout	31	31.3
Have you had sex without protection		
Yes	32	32.0
No	68	68.0
Consequences of engaging in an unprotected sex		
Pregnancy	85	88.5
HIV	72	75.0
STI	75	78.1
Psychological trauma	36	37.5
Don't know	1	1.0

Do you know any method to prevent pregnancy		
Yes	69	69.0
No	18	18.0
Don't know	13	13.0
Have you ever heard about Emergency Contraceptives that can be used to prevent a girl/woman from becoming pregnant after engaging in unprotected sex		
Yes	69	69.0
No	20	20.0
Don't know	11	11.0
Emergency Contraceptive heard of		
Oral pill	73	96.1
Injectable	21	27.6
IUD	15	19.7
Implants	12	15.8
Source of information about Emergency Contraceptives		
Friends/family	46	59
Formal education	25	32.1
Radio/TV	18	23.1
Print	5	6.4
Health worker	18	23.1
Internet	37	47.4
How does Emergency Contraceptive work?		
Prevent pregnancy from happening	60	60.0
Induce abortions	6	6.0
I don't know	34	34.0
When can Emergency Contraceptive be used effectively to prevent pregnancy?		
Within 24hrs after-sex	38	38.0
Within 72hrs after –sex	24	24.0
Until one's period	2	2.0
I don't know	36	36.0
Which drugs can be used as Emergency Contraceptive?		
Combination oral contraceptives	37	37.0
Dedicated Levonorgestrel only pills	3	3.0
Menstrogen	5	5.0
Ampicillin	6	6.0
Gynaecosid	4	4.0
I don't know	45	45.0
From whom do you get your information on Emergency Contraceptive?		
Doctor	20	20.0
Pharmacist	5	5.0
Nurse	7	7.0

Female friends	27	27.0
Boyfriend	2	2.0
Patent medicine dealer	1	1.0
No response	38	38.0

Table 4.5 shows the knowledge of the students on ECPs. 79.0% responded that they know a method that can be used to prevent pregnancy after unprotected sex, while 21.0% do not know. 66.0% reported that they have knowledge of taking contraceptives as a method of protection, 11(14.5%) know of vaginal wash, 20(26.3%) know of abortion, 12(15.8%) know of inserting some stuffs into the vagina, 2(38.2%) know of taking some medicines. 89(89.9%) reported that pregnancy is a consequence of having sex without protection, 76(76.8%) reported HIV/AIDS, 38(38.4%) know of psychological trauma, 31(31.3%) know of school dropout as a consequence of having sex without protection. 32.0% of the students have had sex without protection, while the remaining 68.0% have not. 85(88.5%) of the respondents reported that pregnancy is a consequence of engaging in an unprotected sex, 72(75.0%) reported HIV, 75(78.1%) reported STI, 36(27.5%) reported psychological trauma, while 1(1.0%) reported don't know. 69.0% of the respondents reported that they have heard about Emergency contraceptives that can be used to prevent a girl/woman from becoming pregnant after engaging in unprotected sex, 20.0% have not heard, 11.0% don't know. 73(93.1%) reported that they have heard of Oral pill as an emergency contraceptive, 21(27.6%) have heard of injectable, 15(19.7%) have heard of IUD, while 12(15.8%) have heard of implants. 46(59.0%) got their information from friends/family, 25(32.1%) got theirs from formal education, 18(23.1%) got theirs from Radio/TV, 5(6.4%) got theirs from print, 18(23.1%) got theirs from health workers, 37(47.4%) got their information from the internet. 60.0% of the students reported that emergency contraceptives works to prevent pregnancy from happening, 6.0% reported that it induces abortions, while 34.0% reported they don't know. 38.0% reported that emergency contraceptives can be used effectively to prevent

pregnancy within 24hours after sex, 24.0% reported within 72hours after sex, 2.0% reported until one's period, while 36.0% reported that they don't know. 37.0% reported that combination oral contraceptives can be used as emergency contraceptive, 3.0% reported dedicate levonorgestrel only pills, 5.0% reported menstrogen, 6.0% reported ampicillin, 4.0% reported gynaecosid, while 45.0% reported that they don't know the drugs. 20.0% get information on Emergency contraceptives from doctors, 5.0% got theirs from pharmacists, 7.0% got from nurses, 27.0% got from female friends, 2.0% got information from boyfriends, 1.0% got from patient medicine dealer, while 38.0% did state their source.

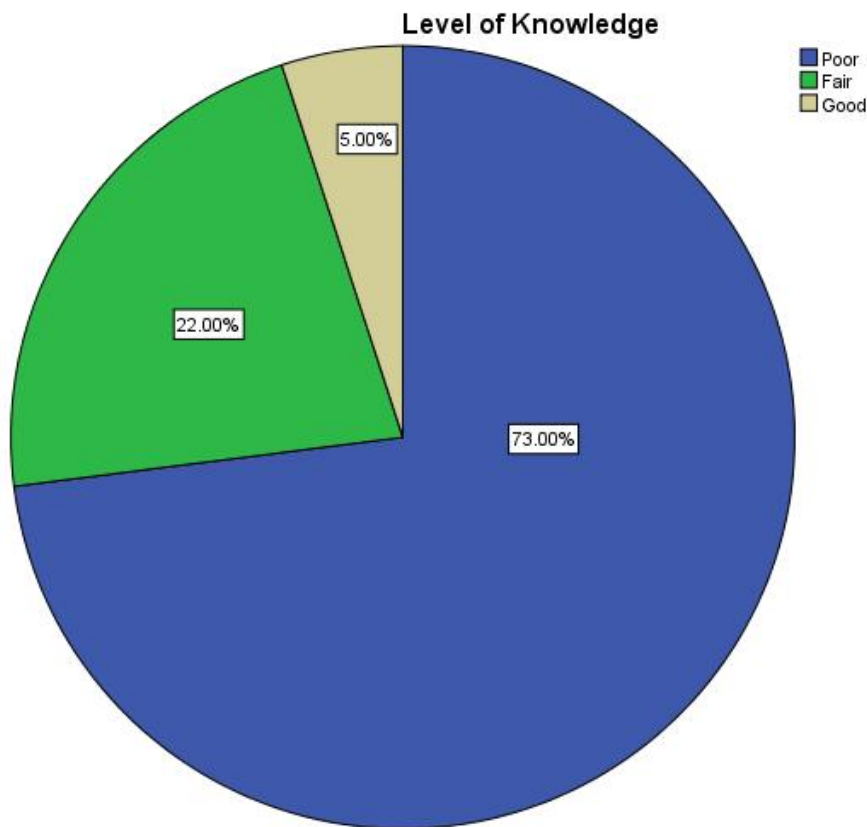


Figure 4.5: Level of knowledge of respondents

Figure 4.2 above shows the level of knowledge of respondents, 5.0% of the respondents have good knowledge, 22.0% have fair knowledge, while the remaining 73.0% have poor knowledge. This indicates that majority of the respondents 73.0 % scored 9-13, while 22.0% of the respondents scored 5-8 and 5% of the respondents scored 1-3 in section B of the administered questionnaire.

RESEARCH QUESTION TWO: What is the perception of female engineering students in University of Benin about emergency contraceptive?

Table 4.6: Perception of the Students on Emergency Contraceptive

	Frequency	Percentage
How do you see Emergency Contraceptive?		
Good	57	57.0
Bad	37	37.0
Can't say	6	6.0
Does your religion accept the use of Emergency Contraceptive?		
Yes	35	35.0
No	59	59.0
Can't say	6	6.0
Will you like to use Emergency Contraceptive after engaging on unprotected sex?		
Yes	48	48.0
No	46	46.0
Can't say	6	6.0
Will you advice someone to use emergency contraceptive?		
Yes	56	56.0
No	29	29.0
Can't say	15	15.0
What is the side effect of emergency contraceptive		
You can't give birth again	20	20.0
Cervical cancer	9	9.0
Others	6	6.0
Don't Know	55	55.0
None	10	10.0

Table 4.6 shows the perception of the students on Emergency Contraceptives. More than half 57.0% of the respondents perceived that Emergency contraceptives is good, 37.0% reported that

it is bad, while 6.0% can't say. 35.0% of the respondents reported that their religion accept the use of Emergency contraceptives, while 59.0% of the respondents reported that their religion does not accept its use, 6.0% can't say. 48.0% reported that they will like to use ECs after engaging on unprotected sex, 46.0% reported that they won't use it, while 6.0% didn't respond. Majority 56.0% of the respondents reported that they will advice someone to use ECs, 29.0% reported that they won't advice anyone, 15.0% can't say. 20.0% of the respondents reported that one can't give birth again as a side effect of ECs, 9.0% reported cervical cancer as a side effect of ECs, 6.0% reported other side effects, 10.0% reported that there are no side effects, while the remaining 55.0% reported they don't know of any side effect.

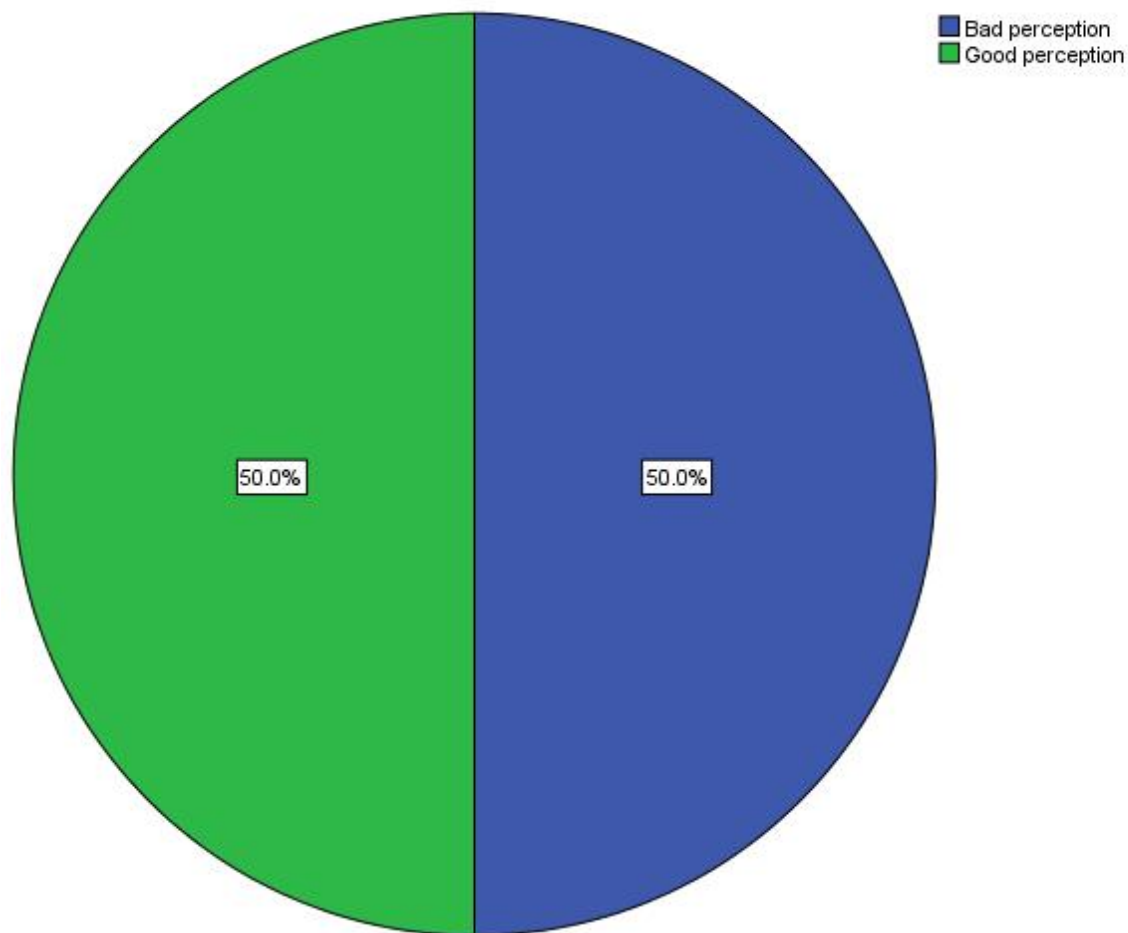


Figure 4.6: Level of perception of respondents

Figure 4.1 above shows the level of perception of respondents, 50% of the respondents have good perception, while the other 50.0% have bad perception of Emergency Contraceptives. This indicates that 6.0% of the respondents scored 5 while 37.0% of the respondents scored 2-4 and 57.0% of the respondents scored 1-3 in section C of the administered questionnaire.

4.3 ANSWERS TO RESEARCH QUESTIONS

RESEARCH QUESTION THREE: Does age affect the knowledge of EC among female undergraduates of university of Benin City

Table 4.2: Association of age and Knowledge of EC among female undergraduates of University of Benin, Benin City.

	Poor	Fair	Good
<18yrs	8(88.9)	14(11.1)	0(0.0)
19-24yrs	55(70.5)	184(23.1)	5(6.4)
25-30yrs	10(76.9)	34(23.1)	0(0.0)

Table 4.2 shows the association of age and knowledge of EC among female undergraduates of University of Benin, Benin City. The table shows that the distribution of knowledge in the different age group is not so much different. For those undergraduate <18yrs 8(88.9%) of them have poor knowledge, 14(11.1%) have fair knowledge, while none of them have good knowledge of ECs. For age group 19-24yrs, 44(70.5%) have poor knowledge, 184(23.1%) have fair knowledge, 5(6.4%) have good knowledge. For age group 25-30years, 10(76.9%) have poor knowledge, 34(23.1%) have fair knowledge, while none have good knowledge. This shows that age 19-24 have better knowledge of ECs than other age groups.

4.4 HYPOTHESES TESTING

Hypothesis One: There is no significance relationship between knowledge and perception of emergency contraceptive among female engineering student in university of Benin City.

Table 4.3: Association between knowledge and perception of Emergency contraceptives

	Perception		χ^2	P
	Bad perception	Good perception		
Poor	43(58.9)	30(41.1)	10.224	0.006
Fair	7(31.8)	15(68.2)		
Good	0(0.0)	5(100.0)		

Table 4.3 shows the relationship between perception and knowledge of ECs among the respondents in this study. Proportion of good perception increases with knowledge. The result shows that there is significant relationship ($p > 0.05$) between perception of ECs and the level of knowledge. We therefore reject the null hypothesis which states that there is no significant relationship ($\chi^2 = 10.224$; $p < 0.05$) between knowledge and perception of emergency contraceptive among female engineering student in university of Benin City.

Hypothesis Two: There is no significant relationship between the knowledge of emergency contraceptives among female engineering students and their age.

Table 4.4: Association of age and Knowledge of EC among female undergraduates of University of Benin, Benin City.

	Poor	Fair	Good	χ^2	P
<18yrs	8(88.9)	14(11.1)	0(0.0)	2.348	0.672
19-24yrs	55(70.5)	184(23.1)	5(6.4)		
25-30yrs	10(76.9)	34(23.1)	0(0.0)		

The above table shows the test of association between age and knowledge of EC among female engineering students. The chi-square test ($\chi^2 = 2.348$, $p > 0.05$) shows that there is no significant relationship between age and knowledge of ECs among the female engineering students. We therefore accept the null hypothesis which states that there is no significant relationship between the knowledge of emergency contraceptives among female engineering students and their age.

CHAPTER FIVE

DISCUSSION OF FINDINGS

This chapter provides the discussion of findings, implications for nursing, summary, conclusion, recommendation, and suggestion for further studies.

5.1 DISCUSSION OF FINDINGS

This study is an assessment ECPs among female undergraduate engineering students in a tertiary institution. One hundred students in the Faculty of Engineering were randomly drawn and data on socio-demographic data, knowledge of ECPs, perception were elicited using a well-structured questionnaire that was designed by the researcher. The study recorded 9.0% of the respondents are <18years, 78.0% of the students are 19-24years, 13.0% are 25 - 30years. 15.0% of the students in this study are in 100 Level, 11.0% are in 200 Level, 25.0% are in 300 Level, 7.0% are in 400 level, 42.0% are in 500 Level. 17.0% of the respondents are Igbos, 10.0% are Yorubas, 31.0% are Benin, while 42.0% are from other tribes. All the respondents (100.0%) in this study are Christians. Majority 95.0% of the respondents are single, 3.0% are married, while 2.0% are widows.

Level Of Knowledge Of Emergency Contraceptives

In the study, the level of knowledge of respondents were tested and results showed that 5.0% of the respondents have good knowledge, 22.0% have fair knowledge, while the remaining 73.0% have poor knowledge. This shows that the respondents have poor knowledge of ECs. This finding is inline with a study conducted by Nwankwo et al .,(2021) on the knowledge ,Attitudes and practice among students of a tertiary institution in imo state, Nigeria. It revealed that 37.9% had good knowledge and 54.3% had fair knowledge. This is in contrast with a study conducted

by Abenet et al.,(2020) which revealed that a majority (72.4%) had a good knowledge about emergency contraceptives.

Perception Of Emergency Contraceptives Among Students

In the study, the perception of the students was assessed on Emergency Contraceptives and the findings showed that more than half 57.0% of the respondents perceived that Emergency contraceptives is good, 37.0% reported that it is bad, while 6.0% can't say. This is in line with Deressa and Yang (2021) in their study in which their findings that 256(56.1%) of study respondents showed a 'positive attitude' towards emergency contraceptive. This is also supported by a study conducted by Masoda et al.,(2022) in their own study of perception regarding emergency contraceptives in adolescents in the Republic of Congo revealed that about 81.8% of the participants showed a good perception towards the use of Emergency Contraceptives.

Relationship Between Age And Knowledge Of Emergency Contraceptives

The study between the association of age and knowledge of EC among female undergraduates of University of Benin, Benin City was assessed . The findings from the study revealed that the distribution of knowledge in the different age group is not so much different. For those undergraduate <18yrs 8(88.9%) of them have poor knowledge, 14(11.1%) have fair knowledge, while none of them have good knowledge of ECs. For age group 19-24yrs, 44(70.5%) have poor knowledge, 184(23.1%) have fair knowledge, 5(6.4%) have good knowledge. For age group 25-30years, 10(76.9%) have poor knowledge, 34(23.1%) have fair knowledge, while none have good knowledge. This shows that age 19-24 have better knowledge of ECs than other age groups. This is in line with a study conducted by Sendor and Fikadu (2021) in their study revealed that the participants who are greater or equal to 20years have a better knowledge and utilization of emergency contraception.

Hypotheses Testing

Hypothesis one was tested and it revealed that there is no significance relationship between the knowledge of the respondents and their perception towards the use of Emergency contraceptives and the results revealed that $p < 0.05$. therefore, the null Hypothesis was rejected. This is in line with a study conducted by Abenet et al., 2020, in their study of knowledge ,attitude and practice of emergency contraceptives among female students at unity university in Ethiopia and it revealed that there was a significant relationship between knowledge and perception of emergency contraceptive among the respondents. The result of the hypotheses was in contrast with a study done by Nwankwo et al., 2021, among female undergraduates in a tertiary institution in kaduna state, Nigeria and it revealed that there was no significant relationship between knowledge and perception of emergency contraceptive among the respondents. Hypothesis two was also tested and it showed that there is no significance relationship between the knowledge of the respondents and their age, $p > 0.05$ therefore the null hypothesis was accepted. The result was in line with a study conducted by akah & Aniwada (2022) and the results revealed that there was a no significant relationship between the knowledge of respondents and their age and it is in contrast with a study carried out by Davis et al., 2020 on knowledge, attitude about the use of Emergency contraceptives among college students in India and it revealed that there was a significant relationship between knowledge of emergency contraceptive among those that are greater than 25 years of age.

5.2 Implication To Nursing Practice

Emergency Contraceptive methods use is part of a family planning package. A large and empirically verified demand for ECs methods to space or limit childbearing exists worldwide. Moreover, the need for ECs use is generally high in societies where poverty, illiteracy, and gender inequality are high. In such societies, unintended and repeated pregnancies make it difficult for women to participate in economic development and self-development. The Ministry of Health in collaboration with development partners involved in the provision of family planning services need to enhance large scale training of service providers in quality care, client follow up, communication skills, counselling, referral and feedback and provision of a wide choice of methods. The nurse should also health educate young females of the use of ECs in the prevention of unwanted pregnancy if abstinence cannot be practiced.

5.3 SUMMARY

This is a study on the knowledge and perception of emergency contraceptive among female undergraduates students in the faculty of Engineering of the University of Benin. 100 subjects were used for the study. Instrument of data collection was questionnaire and it contained mainly closed ended questions. In the study, the level of knowledge of respondents were tested and results showed that 5.0% of the respondents have good knowledge, 22.0% have fair knowledge, while the remaining 73.0% have poor knowledge. This shows that the respondents have poor knowledge of ECs.

The perception of the students was assessed on Emergency Contraceptives and results showed that more than half 57.0% of the respondents perceived that Emergency contraceptives is good, 37.0% reported that it is bad, while 6.0% can't say. This is in contrast with the study conducted

by Mnyanda in 2013 which revealed majority of the respondents perceived the use of Ecps are bad and dangerous to their health.

However, the result of the chi-square statistics carried out in table 4.6 confirmed that the respondents' knowledge of emergency contraceptives is not a significant factor in influencing their utilisation of emergency contraceptives.

5.4 CONCLUSION

Unwanted pregnancies are a major public health problem for both developing and developed nations. Unplanned pregnancies generally result from lack of or ineffective use of contraceptives and result in induced abortions. Unintended pregnancies remain a major concern in developing countries with most women wanting to postpone child bearing or limit the size of their families. The observed perception of the respondents towards emergency contraceptives was good despite their poor level of knowledge indicates that their perception and knowledge as regards emergency contraceptives may not be related but however, it was found that significant relationship do exist between the respondents' knowledge of Emergency contraceptives and their perception of same.

5.5 RECOMMENDATIONS

Based on the study findings and conclusion, the following recommendations are suggested:

1. The major source of information for the respondents as regards emergency contraceptives is chemist shops and friends. This indicates that health workers are not doing enough in sensitizing the general public on the benefits of Emergency contraceptive
2. Parents of the respondents were found to be the least source of information as regards emergency contraceptive. This should not be the case. Parents must therefore educate their

female wards on emergency contraceptive and its usage so as to curb the spate of unwanted pregnancies in the society.

3. There is continuing need for policies and programs that promote consistent emergency contraceptive use among women of reproductive age.
4. The administration of the hospital should ensure continuous supply of the contraceptives to avoid inconveniencing the clients.
5. Promoting emergency contraceptive use will result to utilisation among women of reproductive age and thus reduce adverse maternal and perinatal outcomes. It will lead to control of the current country population growth.
6. Ministry of Health should encourage the uptake of emergency contraceptives at household level by enhancing continuous promotion of family planning services and provision of free emergency contraceptives. This could be realised by supporting family planning outreach activities by the health workers.
7. Enhancing standards and regulation to ensure that emergency contraceptives provided are of good quality is recommended.
8. There is need for government at all levels to revamp and support Community Based Distribution of Family Planning services.
9. The NGOs and CBOs need to revamp and support the services of community based distributors so that emergency contraceptives could reach the underserved who are mostly rural dwellers.
10. The Ministry of Health in collaboration with development partners involved in the provision of family planning services need to enhance large scale training of service providers in

quality care, client follow up, communication skills, counseling, referral and feedback and provision of a wide choice of methods.

5.6 SUGGESTION FOR FURTHER RESEARCH

- Assessment of the knowledge, attitudes and practices of female secondary school learners on emergency contraception in Ekpoma community.
- The utilization of oral contraceptive among female undergraduate students from the Faculty of Basic Medical Science of the University of Benin, Benin City.

REFERENCE

- Adavuruku, S. S., Haruna, U., Avidime, A. R., Daneji, S. M., Rabi, A., & Takai, I. U. (2022). Awareness and utilization of emergency contraceptives among female undergraduates in Kano: North west Nigeria. *Pyramid Journal of Medicine*, 5(2).
- Clara Akah, C., & Aniwada, E. C. (2022). Contraceptive Use an Evolving Challenge; Perception and Misconception among Women of Reproductive Age at University of Nigeria Nsukka, Nigeria. *Asian Research Journal of Gynaecology and Obstetrics*, 7(4), 17-30.
- Davis, P., Sarasveni, M., Krishnan, J., Bhat, L. D., & Kodali, N. K. (2020). Knowledge and attitudes about the use of emergency contraception among college students in Tamil Nadu, India. *Journal of the Egyptian Public Health Association*, 95, 1-11..
- Feleke, A. E., Nigussie, T. S., & Debele, T. Z. (2019). Utilization and associated factors of emergency contraception among women seeking abortion services in health institutions of Dessie town, North East Ethiopia, 2018. *BMC research notes*, 12, 1-6.
- Haeger, K. O., Lamme, J., & Cleland, K. (2018). State of emergency contraception in the US, 2018. *Contraception and reproductive medicine*, 3, 1-12.
- Hammoud, R., Saleh, S., Halawani, D., Mezher, H., Abou El Naga, A., & Azakir, B. (2020). Knowledge and attitudes of Lebanese women of childbearing age towards emergency contraception. *The European Journal of Contraception & Reproductive Health Care*, 25(1), 28-32.
- Issah, F. (2021). Knowledge, Attitudes and Practice OF Emergency Contraception Use Among Female Students in The University For Development Studies (UDS), Tamale Campus (Doctoral dissertation).
- Jha, B. D. (2020). Knowledge and Use of Emergency Contraceptive Pills among Bachelor's Level Female Students of Kathmandu Valley. *Journal of Health Promotion*, 8, 109-118.
- Kara, W. S. K., Benedicto, M., & Mao, J. (2019). Knowledge, attitude, and practice of contraception methods among female undergraduates in Dodoma, Tanzania. *Cureus*, 11(4).
- Kgosiemang, B., & Blitz, J. (2018). Emergency contraceptive knowledge, attitudes and practices among female students at the University of Botswana: A descriptive survey. *African Journal of Primary Health Care and Family Medicine*, 10(1), 1-6.
- Maurice, N. M., Olivier, M., & Jean-Claude, A. B. (2022). Adolescents' knowledge, attitude and utilization of emergency contraceptive in Idjwi Island in the Democratic Republic of the Congo. *Int J Fam Commun Med*, 6(4), 145-151...
- Menene, A., Getachew, A., Kediro, A., & Gutema, B. (2020). Assessment of knowledge, attitude and practice toward emergency contraceptive among female students at Unity University, Adama Town, Oromia Regional State, Ethiopia. *International Journal of Clinical and Experimental Medical Sciences*, 6(5), 96.
- Mishore, K. M., Woldemariam, A. D., & Huluka, S. A. (2019). Emergency contraceptives: knowledge and practice towards its use among Ethiopian female college graduating students. *International journal of reproductive medicine*, 2019.
- Nketia, R., Shaibu, U., Atta-Nyarko, D., Arthur, F. N., Adobasom-Anane, A. G., & Nketiah, Y. B. (2022). Knowledge, Attitude, Utilization And Barriers to Emergency Contraception among Reproductive-Age Women Between 15 and 24 Years in Ghana's Poor and Low-

- Resource Settings: The Case of East-Gonja Municipality. *International Journal of Multidisciplinary Studies and Innovative Research*, 10(1), 1392-
- Nwankwo, B., Mohammed, M. H., Usman, N. O., & Olorukooba, A. A. (2021). Knowledge, attitude and practice of emergency contraception among students of a tertiary institution in Northwestern Nigeria. *Journal of Medical and Basic Scientific Research*, 2(1), 13-28.
- Shamsu-Deen, Z., Sufyan, B. S., & Issah, F. (2021). knowledge, attitude and barriers to the utilization of emergency contraceptives among female students of the university for development studies: a cross-sectional study. *International Journal of Development*, 8(2), 596-609.
- Ziba, F. A., & Yakong, V. N. (2019). Awareness and Utilization of Emergency Contraceptives: A Survey among Ghanaian Tertiary Students. *Asian Journal of Research in Nursing and Health*, 1-7.

APPENDIX I

QUESTIONNAIRE DEPARTMENT OF NURSING SCIENCE SCHOOL OF BASIC MEDICAL SCIENCE UNIVERSITY OF BENIN, BENIN CITY, EDO STATE

Dear Respondents,

I am a student of the above named Department conducting a research on **“Knowledge and Perception of Emergency Contraceptives Among Female Engineering Students in University of Benin, Benin City, Edo State”**.

Please, kindly assist me by ticking your choice or answer and suggest where necessary in the space provided at the end of each question.

This study is strictly for academic purpose and you are hereby assured that all information supplied will be treated in a strictly confidential manner.

Thank you.

Yours faithfully,

INSTRUCTIONS

1. Do not write personal details e.g names address or phone number.
2. Tick (✓) where appropriate.
3. Please answer all questions.

SECTION A: DEMOGRAPHIC DATA OF THE STUDENTS

University of Benin, Benin City, Edo State

1. Age (a) < 18 [], (b) 19 – 24 [], (c) 25 – 30 [], (d) > 30 []
2. Sex Male [], Female []
3. Study level (a) 100 [], (b) 200 [], (c) 300 [], (d) 400 [], (e) 500 []
4. Ethnic group (a) Igbo [], (b) Yoruba [], (c) Hausa [], (d) Benin [], (e) Others []
5. Religion (a) Christianity [], (b) Islam [], (c) Traditional [], (d) Others []
6. Mode of entry (a) UTME [], (b) Direct Entry [],
7. Residence (a) On Campus [], (b) Off-Campus []
8. Marital Status (a) Single [], (b) Married [], (c) Widow [], (d) Widower [], (e) Divorce []

SECTION B: KNOWLEDGE OF THE STUDENT ON ECPs

9. Do you know any method use to prevent pregnancy after unprotected sex ? Yes [], No []
10. If yes, what method of protection do you know? (you can choose more than one method)
- (a) Taking contraceptives
 - (b) Vaginal wash
 - (c) Abortion
 - (d) Inserting some stuff into the vagina
 - (e) Taking some medicines
 - (f) Others (Specify) _____
11. What are the consequences of having sex without protection? (a) Pregnancy [], (b) HIV, (c) AIDS, (d) Psychological trauma [], (e) School dropout []
12. Have you have sex without protection? Yes [], No []
13. If yes, what was the consequence of engaging in an unprotected sex?
(List the consequence)
- _____
- _____
14. What was the result of that experience? (a) Pregnancy [], (b) HIV [], (c) STI [], (d) Psychological trauma [], (e) Don't know [], (f) Others specify _____
15. Do you know any method to prevent pregnancy after engaging in an unprotected sex? (a) Yes [], (b) No [], (c) I don't know []
16. Have you ever heard about Emergency Contraceptives that can be used to prevent a girl/woman from becoming pregnant after engaging in unprotected sex? (a) Yes [], (b) No [], (c) I don't know []
17. If Yes, for question 16, which method(s) of Emergency Contraceptive have you heard of ? (a) Oral pill [], (b) Inject able [], (c) IUD [], (d) Implants [], (e) Others, specify _____
18. What was your source of information about Emergency Contraceptive (you can choose more than one option) (a) Friends/family [], (b) Formal education [], (c) Radio/TV [], (d) Print [], (e) Health worker [], (f) internet [], (g)Others, specify _____

19. How does Emergency Contraceptive work? (a) Prevent pregnancy from happening [], (b) Induce abortions [], (c) I don't know [], (d) Others, specify _____
20. When can Emergency Contraceptive be used effectively to prevent pregnancy? (a) Within 24hrs after-sex [], (b) Within 72hrs after –sex [], (c) Until one's period [], (d) Even after a missed period [], (e) I don't know []
21. Which drugs can be used as Emergency Contraceptive? (a) Combination oral contraceptives [], (b) Dedicated Levonorgestrel only pills [], (c) Menstrogen [], (d) Brown Codein [], (e) Ampicillin [], (f) Quinine [], (g) Ergometrine [], (h)Gynaecosid []
22. From whom do you get your information on Emergency Contraceptive? (a) Doctor [], (b) Pharmacist [], (c) Nurse [], (d) Female friends [], (e) Boyfriend [], (f) Patent medicine dealer [].

SECTION C: PERCEPTION OF THE STUDENTS ON EMERGENCY CONTRACEPTIVE

23. How do you see Emergency Contraceptive? (a) Good [], (b) Bad []
24. Does your religion accept the use of Emergency Contraceptive? (a) Yes [], (b) No []
25. Will you like to use Emergency Contraceptive after engaging on unprotected sex? Yes [] No []
26. How do you think Emergency Contraceptive work? (a) Prevent pregnancy from happening [], (b) Induce abortions [], (c) I don't know [], (d) Others, specify _____
27. Will you advice someone to use emergency contraceptive? Yes[] No[]
28. What is the side effect of emergency contraceptive (a) you can give birth again (b) heart attract (c) cervical cancer (d) others specify _____