

## UTILIZATION OF EMERGENCY CONTRACEPTION AMONG FINAL YEAR FEMALE STUDENTS IN UNIVERSITY OF NIGERIA NSUKKA

**Attah Blessing Ijeoma, Ugwu Eunice Ifenyinwa & Izukanne Crystal Onyinyechukwu**

Department of Home Economics and Hospitality Management Education, UNN

**Corresponding:** Ugwu Eunice Ifenyinwa [ugwu.eunice@unn.edu.ng](mailto:ugwu.eunice@unn.edu.ng) 08064099663)

### Abstract

*This study was designed to investigate the utilization of emergency contraception among final year female students in University of Nigeria, Nsukka. Four research purposes with corresponding hypothesis guided the study. The study is based on quantitative research, the population for this study comprised of final year female students in University of Nigeria, Nsukka. The population for the study was 211 final year female undergraduate students. There was no sampling since the population is manageable. A structured questionnaire was employed as a tool for data collection. The instrument was validated by 3 experts from Home Economics and Hospitality Management Education, university of Nigeria Nsukka. The data was analyzed using frequency, mean and standard deviation with the aid of Microsoft excel. It was found out among others that the utilization of emergency contraception among final year female students is relatively low, despite its potential benefits in preventing unintended pregnancies. Addressing barriers such as limited awareness, accessibility, and social stigma is essential to promote the uptake of EC among this population. Based on the findings, it was recommended that final year female students should delegate time to research on any emergency contraception method before utilizing, final year female students who are not married should develop habits of discipline and practice abstinence as that is the best method of contraception*

**Keywords:** Utilization, Emergency Contraception, Final year female students and University of Nigeria Nsukka.

### Introduction

Conception is the process of forming a zygote, from the union of the sperm and egg. Conception is defined as the process that occurs when a sperm cell and an egg cell unite in the fallopian tube to form a zygote, marking the start of pregnancy. The zygote travels to the uterus for implantation, which establishes the pregnancy (American College of Obstetricians, 2021). World Health Organization (2011) defines conception as the process of fertilization, where a sperm cell and an egg cell combine to form a zygote. This zygote then begins dividing and eventually travels to the uterus for implantation, initiating pregnancy. American college of obstetricians, (2021) define conception as the event where a sperm cell fertilizes an egg cell in the fallopian tube, resulting in the formation of a zygote. This zygote then proceeds to undergo cell division and eventually travels to the uterus, where it may implant into the uterine lining, potentially resulting in a viable pregnancy, pregnancy can be prevented by the proper use of contraception devices.

Contraception are methods or devices used to prevent unwanted pregnancy. Contraception is the intentional and conscious use of various methods, devices, or medications by females to prevent unintended pregnancies and exercise control over their reproductive choices (World Health Organization,

2019). Contraception methods and devices includes; Hormonal method of contraception which involves the use of synthetic hormones, typically estrogen and progestin, to inhibit ovulation and alter the cervical mucus, preventing fertilization (American College of Obstetricians and Gynecologists, 2020). Barrier method of contraception, involves the use of physical method to block the sperm from reaching an egg, providing a mechanical barrier to prevent pregnancy examples are condoms, diaphragms, cervical cap, contraceptive sponge, center for disease control and prevention (Centre for Disease Protection Control, 2021).

Emergency contraception, often referred to as the 'morning-after pill,' involves the use of high-dose hormones to prevent pregnancy after unprotected intercourse (ACOG, 2021). Emergency contraception (EC) also called post-coital contraception, is not administered for regular contraception but to prevent pregnancy after unprotected sex or contraceptive failure. The failure of barrier methods such as slippage, condom breakage or misuse, rape, failed coitus interruptus, two or more consecutive missed oral contraceptive pills, or unexpected sexual intercourse could prompt the use of emergency contraception, it is categorized into two main types: emergency contraception pills (ECPs) i.e.levonorgestrel-based pills,

a synthetic hormone, available over-the-counter without prescription and most effective when taken within 72 hours after unprotected intercourse (Okorie, 2022). Ulipristal acetate pills, available with a prescription, works up to 120 hours after unprotected sex. It is generally more effective than levonorgestrel-based pills, especially when time elapses; copper intrauterine device i.e when inserted by a healthcare professional within five days of unprotected intercourse, it is highly effective in preventing pregnancy. Additionally, it serves as a long-term contraceptive method after insertion. Unintended child births and unsafe abortions can be reduced by EC through the prevention of unintended pregnancies. Unsafe abortions account for up to 13% of pregnancy-related deaths worldwide. Nigeria had an estimated 1.25 million induced abortions in 2012 (Amorha, Adayi, Ayogu, & Ukwe, 2017).

Knowledge of the use contraceptive devices is poor among rapes victims, newly married couples not interested in immediate procreation or married couples interested in opting for family planning, may lead to unintended pregnancies, causing discontinuation of school and repeat abortions, the rate of women seeking repeat abortions is high in Nigeria, in spite of available contraceptive services. Emergency contraception cannot cause abortion, process of starting implantation of a fertilized egg is what is called pregnancy, and therefore intake of emergency pills cannot prevent pregnancy since the fertilized egg has been implanted (Trussell, 2016). Some women use the emergency pills when pregnant and according to Weimiller, American Family Physician (2004), no harmful effects to the fetus or the woman. Emergency contraceptive pills do not prevent women from HIV and other sexually transmitted diseases and it should be taken after every unprotected sex since the emergency pills do not protect from the rest of the cycle. It is imperative to note that understanding and accessing information on emergency contraception contribute to comprehensive reproductive health care, offering individuals a way to mitigate the risk of unintended pregnancy and negative impacts associated with emergency contraception.

Negative impact means a condition that poses or constitutes an undue or unreasonable hazard or risk to life or health of any person on or about a property (Smith & Johnson, (2013). While the negative impacts of emergency contraception are generally mild and short-term, it is important to note that individual experiences may vary, nausea and vomiting in some individuals; emergency contraception especially levonorgestrel-based pills, may cause nausea and vomiting in some individuals (WHO, 2019). Changes in menstrual cycle;

it can lead to alterations in the menstrual cycle including changes in timing, duration, or flow of menstrual periods (Glasier, Cameron & Blithe, 2011). Potential allergic reactions; individuals with allergies to components in emergency contraceptive pills may experience adverse reactions, although severe allergic reactions are rare (Trussell & Johnson, 2011). Effectiveness decreases with time; effectiveness of emergency contraception decreases as time passes after unprotected intercourse, early administration, preferably within 72 hours is crucial for optimal effectiveness (AOG, 2017). Although having children is a joint endeavor between men and women, it is viewed as the major role of women in developing nations. This explains why male contraception has not been promoted in these places as much as female contraception, male contraception does not appear to be supported or encouraged by African patriarchal society. The use of contraception is more efficient to final year female students that may encounter rape, or final year female students that are newly married or those that have given birth and decided to continue bearing children after studies.

Final year female students are female scholars who are in their final or last year of study in a particular institution. Final female students refer to female students who are in their last year of study at a particular level of education, such as high school or university, these students are typically preparing to graduate and transition to the next phase of their academic or professional lives (Smith & Johnson, 2018). The challenges they are likely to face includes; academic pressure, gender bias in academic settings, career aspirations and expectations, transition to the workforce, financial constraints, mental health and stress, imposter syndrome, social and peer relationships, lack of representation in STEM fields, access to resources and opportunities, sexual harassment and gender-based violence. Final year students often face increased academic demands, including thesis or project completion, exams, and preparation for graduation, balancing these requirements can be particularly challenging for female students.

They may encounter gender bias in the classroom, such as being overlooked during discussions or receiving less constructive feedback compared to their male counterparts (Brown & Jones, 2018). Addressing gender related challenges and promoting culture of equality is crucial, encouraging female students to pursue leadership roles and empowering them to overcome gender based obstacles contributes to a more inclusive academic environment. Balancing

academic demands with career aspirations can be challenging for female students, especially when faced with societal expectations related to family and caregiving responsibilities (Brown & Garcia, 2019). Juggling academic commitments with personal life responsibilities, including caregiving, household duties, and part-time employment, can lead to stress and burnout among final year female students (Garcia & Patel, 2019). Financial pressures, including tuition fees, living expenses, and student loan debt, may disproportionately affect female students and impact their ability to focus on their studies during their final year (Nguyen & Smith, 2021).

Final year female students may experience mental health issues such as anxiety and depression, exacerbated by academic stress, societal expectations, and lack of adequate support systems (Garcia & Patel, 2019). Many final year female students struggle with imposter syndrome, doubting their abilities and feeling like they don't belong in their chosen field or academic environment (Smith, 2019). Students may experience a mix of emotions as they navigate changing social dynamics, friendships, and support networks. Female students pursuing degrees in science, technology, engineering, and mathematics (STEM) may face challenges due to the underrepresentation of women in these fields, including limited mentorship opportunities and hostile work environments (Brown, et al., 2018). They may have limited access to resources such as research funding, networking opportunities, and internship placements, hindering their professional development and career advancement (Johnson, 2018). Female students may be at a stage where they are contemplating family planning, making decisions about relationships, or considering their reproductive health options, access to information and support in these matters is essential, they may also encounter sexual harassment or gender-based violence on campus, which can negatively impact their academic performance, mental health, and sense of safety (Lee & Smith, 2020).

### **Statement of the Problem**

The issue of optimal academic performance among newly married final year students due to inadequate knowledge about emergency contraceptives is multifaceted and warrants attention for several reasons, lack of knowledge about emergency contraceptives increases the risk of unplanned pregnancies among newly married students. Balancing academic responsibilities with the challenges of parenthood can significantly impact their academic performance, unplanned pregnancies can lead to

emotional stress, anxiety, and distraction, affecting students' ability to focus on their studies and perform well academically. This stress may be amplified for final year students who are under pressure to excel in their studies and graduate successfully.

The stigma surrounding sexually abused female student victims can significantly impact their access to and use of emergency contraception. Rape is a traumatic experience that can leave survivors feeling ashamed, guilty, or stigmatized. In such situations, seeking medical care, including emergency contraception, can be particularly challenging due to fear of judgment, disbelief, or victim-blaming from healthcare providers, family members, or society at large. For such survivors, the decision to use emergency contraception may be further complicated by cultural or religious beliefs, fear of retaliation from the perpetrator, or concerns about confidentiality. The stigma associated with sexual assault can create barriers to accessing timely and appropriate healthcare, including emergency contraception, which is crucial for preventing unintended pregnancy. Addressing the stigma surrounding rape and supporting survivors is essential for ensuring that they feel safe and empowered to seek the medical care they need, including emergency contraception. Healthcare providers and support organizations play a vital role in creating a supportive and non-judgmental environment for survivors, where their autonomy and choices are respected.

Efforts to raise awareness, provide education about sexual assault and its consequences, and combat victim-blaming attitudes are essential for reducing the stigma surrounding rape victims and promoting access to emergency contraception and other reproductive healthcare services and access care. Possible case of infertility from untreated complications of intrauterine devices, its essential female students are aware of the potential risks associated with emergency contraception when they are not properly utilized, to avoid regrets later in marriage or when they want to reproduce.

### **Purpose for the Study**

The main purpose of this study is to assess the utilization of emergency contraception among final year female students. Specifically, the study;

1. Determined the level of awareness of emergency contraception use among final year female students of UNN.
2. Identified factors influencing the utilization of emergency contraception among final year female students of UNN.

3. Identified the risks associated with constant utilization of emergency contraception among final year female students of UNN.
4. Assessed the frequency of utilization of emergency contraception.

### Research Questions

The research questions are presented below;

1. What is the level of awareness of emergency contraception use among final year female students of UNN?
2. What are the factors influencing emergency contraception utilization among female final year students of UNN?
3. What are the risks associated with constant utilization of emergency contraception among female final year student of UNN?
4. What is the frequency of use of emergency contraception by final year female students of UNN.

### Methodology

The study made use of descriptive survey research design in building up this project work the choice of this research design was considered appropriate because the data to be collected will be from a given sample of population characteristics at a single time. The design was suitable for this study because it employed questionnaire to assess the Utilization of Emergency Contraception Among Final Year Female Students of University of Nigeria Nsukka. The study will be carried out in the University of Nigeria, University of Nigeria, has an area of 8 hectares (2,150 acres) and a population of about 37,519. It was founded by Nnamdi Azikiwe in 1955 and formally began academic activities on 7<sup>th</sup> October, 1960. The University of Nigeria, is made up of three campuses located at strategic locations in Enugu state, the university is at Nsukka, Enugu, Ituku-Ozalla. The main campus, commonly referred to as UNN, is located in the heart of Nsukka town, at Obukpa road and hosts students of various academic programs. Ten (10) faculties are located in Nsukka campus.

The population for this study is the 9,015 final year female students of all the faculties. The number of final year female students on the list of possible graduates in the University of Nigeria, the data was obtained from Faculty officers of each of the five (5) faculty in the University of Nigeria Nsukka, the information was obtained through each faculty's secretary as registered in their documents.

The instrument that was used to collect data for the study is a structured questionnaire, titled: Utilization of Emergency Contraception among Final

year Female Students: (UECFFSQ) University of Nigeria, Nsukka, Enugu State, Nigeria. The questionnaire was made up of five (5) sections in line with the objectives of the study and extensive review of literature. Section A was the Socio-demographic Characteristics of the Respondents, section B was to determine the level of awareness of emergency contraception among final year female students of UNN, section C was to identify factors influencing the utilization of emergency contraception among final year female students of UNN, section D was to identify risks associated with constant utilization of emergency contraception among final year female students of UNN, section E was to assess the frequency of utilization of emergency contraception by final year female students of UNN.

Four-point Likert scale will be constructed for the response to the items. Agree (A), Strongly Agree (SA), Disagree (D), and Strongly Disagree (SD). The assigned values for the rating scale is as follows: Strongly agree (SA) = 4, Agree (A) = 3, Disagree (D) = 2, Strongly disagree (SD) = 1. All items with mean of 2.50 or above were regarded as agreement while those with mean below 2.50 were regarded as disagreement/rejection.

The major research instrument used is the questionnaires. It will be given to three experts in the Department of Home Economics and Hospitality management to evaluate its sustainability for the respondents. The final correction by the validators was used by the researcher to modify and produce final copies of the questionnaire for data collection. The respondents were administered with the questionnaires to complete, with or without disclosing their identities. The questionnaire was designed to obtain sufficient and relevant information from the respondents.

The researcher will visit the study area and the questionnaires will be administered to the relevant respondents. The researcher will guide the respondents on how to fill the questionnaires appropriately. Data was collected by the researcher with the help of three research assistants. The questionnaire was given to the respondents through face-to-face contact and was collected on the spot. The questionnaire has four clusters. The first cluster sought information on the level of awareness of emergency contraception among final year female students, while the second cluster sought information on factors influencing the utilization of emergency contraception among final year female students, the third cluster sought information on risks associated with constant utilization of emergency

contraception among final year female students, and the Fourth cluster sought information frequency of utilization of emergency contraception by final year female students.

The data collected was not an end in itself but it served as a means to an end. The end being the use of the required data to understand the various situations it is with a view to making valuable recommendations and contributions. To this end, the data collected has to be analyzed with the use of quantitative and qualitative (descriptive) method of data analysis, the data from questionnaires responses were organized and entered. Frequencies, mean scores, percentage (%). It is for this reason that the following methods were adopted in the research project for the analysis of the data collected, Nominal values will be assigned to the response options as shown below:

Strongly Agree (SA). - 4 points.

Agree (A). - 3 points.

Disagree (D). - 2 points.

Strongly Disagree (SD). - 1 point.

Four point Likert scale will be constructed for the response to the items. Agree (A), Strongly Agree (SA), Disagree (D), and Strongly Disagree (SD). The assigned values for the rating scale is as follows: Strongly Agree (SA) = 4, Agree (A) = 3, Disagree (D) = 2, Strongly Disagree (SD) = 1. All items with mean of 2.50 or above were regarded as agreement while those with mean below 2.50 were regarded as disagreement/rejection. This decision rule is given as follows:

Any item with mean of 2.50 and above was regarded as agreed, while any item with mean less than 2.50 was regarded as disagreed.

### Findings

**Research Question 1:** What is the level of awareness of emergency contraception among final year female students of UNN?

Data for answering research question one is presented in Table 1.

**Table 1: Frequencies and percentage of respondents on the knowledge of emergency contraception.**

S/N	Items	Yes	No
1	Have you heard of emergency contraception?	198(93.4%)	13(6.16%)
2	How did you first learn about emergency contraception?	11(5.2%)	
	(a) School		
	(b) Health care provider		
	(c) Family/Friends	158(74.9%)	
	(d) Media	32(10.4%)	
	(e)Never	20(9.48%)	
3	Have you used any form of emergency contraception?	112(53.2%)	99(46.8%)
4	Do you think emergency contraception should be available without prescription?	168(79.6%)	43(20.4%)

In Table 1, the data showed frequencies and percentage of respondents on the knowledge of emergency contraception. In this cluster, 8 item questionnaire were administered to respondents. Items with 50% and above in the YES are considered statistically significant to the study while items less than 50% in the YES column is considered statistically insignificant to the study. Therefore, item 1 indicates

that the final year female students have heard of emergency contraception, item 2 a, 2c, 2d, indicates that schools, family/friends and media are major sources of information about emergency contraception, item 4 indicates that final year female students utilize emergency contraception, item 8 indicates that final year female students believes that contraception pills should be available without prescription.

**Table 2: Mean Ratings and standard deviations of respondents on the functions of emergency contraception among final year female students in UNN.**

S/N	Functions of emergency contraception	Mean	Std. Deviation	Remark
5	To terminate an existing pregnancy	2.308	1.0463	D
6	To prevent pregnancy after unprotected sex	3.014	0.999	A
7	It is a method to prevent sexually transmitted infections	3.038	0.933	A
8	It can be used after contraceptive failure	2.924	0.956	A

The data in Table 2 shows the mean scores and standard deviations of respondents on the functions of emergency contraception, this further helps in determining the level of awareness about emergency contraception among final year female students in UNN. In this cluster, 4 item questionnaire were administered to the respondents, the respondents rated 3 out of 4 items above 2.50 which indicates that they were in agreement that the 3 items were the functions of

emergency contraception among final year female students in UNN. The remaining item had a mean value of 2.308, the value of the item was below 2.50 indicating that the item was not a function of emergency contraception among final year female students of UNN. **Research Question 2:** What are the factors influencing the utilization of emergency contraception among final year female students of UNN.

**Table 3: Mean Ratings and standard deviations of respondents on the factors influencing the utilization of emergency contraception among final year female students in UNN.**

S/N	Factors influencing the utilization of emergency contraception	Mean	Std. Deviation	Remark
9	Emergency contraception methods are cheap	2.180	1.091	D
10	Some emergency contraception are easily accessible	2.891	0.975	A
11	Religious beliefs mitigate the utilization of emergency contraception	2.204	1.102	D
12	Fear of potential side effects may deter the use of emergency contraception	2.156	1.127	D
13	Fear of stigma or judgement can influence utilization of emergency contraception	2.663	1.069	A
14	Peer pressure can influence perception and willingness to use emergency contraception	2.896	1.034	A

Table 3 shows that 3 out of 6 items had means ranging from 2.67 to 2.89. Which implies that all are statistically significant and exists at the significant level 2.50. The data of item 12 with the lowest mean score of 2.16 indicates that final year female students of UNN will utilize emergency contraception regardless of potential side effects when faced with the need for it, item 11 with a mean score of 2.20 indicates that religious beliefs does not mitigate the utilization of emergency

contraception, item 9 with a mean score of 2.18 indicates that the price range of emergency contraception is not one of the factors that influences emergency contraception

**Research Question 3:** What are the risks associated with constant utilization of emergency contraception among female final year student of UNN?

**Table 4: Mean Ratings and standard deviations of respondents on the risks associated with constant utilization of emergency contraception among final year female students in UNN**

S/N	Risks associated with constant utilization of emergency contraception	Mean	Std. Deviation	Remark
15	Inconsistent use of emergency contraception may increase the risk of unintended pregnancy	2.763	0.877	A
16	Frequent use of emergency contraception can lead to changes in menstrual cycle	2.729	1.043	A
17	Emergency contraception does not provide full protection from sexually transmitted infections (STIs)	2.725	1.012	A
18	Emergency contraception could fail as a primary method of contraception	2.962	0.938	A
19	Emergency contraception can cause hormonal imbalance for some females	3.033	0.985	A

Results presented in Table 4 showed the mean and standard deviations of the risks associated with constant utilization of emergency contraception among final year female students. Result showed that as 1-5 had means ratings of 2.76, 2.73, 2.73, 2.96, 3.03 with standard deviations of 0.88, 1.04, 1.01, 0.94, 0.99, respectively these mean ratings are above the criterion level of 2.50 set for accepting an item, this means that inconsistent use of emergency contraception being able to increase the risk of unintended pregnancy, frequent use of emergency contraception leading to changes in

menstrual cycle, emergency contraception not providing full protection from sexually transmitted infections (STIs), emergency contraception failing as a primary method of contraception, emergency contraception having potential to cause hormonal imbalance for some females, are all risks associated with constant utilization of emergency contraception among final year female students in UNN.

**Research Question 4:** What is the frequency of use of emergency contraception by final year female students of UNN.

**Table 5: Frequencies and percentage of respondents on the frequency of use of emergency contraception.**

S/N	Frequency of use of emergency contraception	Yes	No
20	How often have you used emergency contraception?	63(298%)	
	(a) Once		
	(b) Twice	50(23.7%)	
	(c) Three times or more	30(14.2%)	
	(d) Never	68(32.2%)	
21	Have you ever taken more than one dosage of emergency contraception within a day?	41(19.43%)	170(80.6%)
22	Have you ever used emergency contraception after protected sexual intercourse?	22(10.4%)	189(89.6%)

In Table 5, the data showed frequencies and percentage of respondents on the frequency of use of emergency contraception, in this cluster, 7 item questionnaire were administered to respondents. Items with 50% and above in the YES are considered statistically significant to the study while items less than 50% in the YES column is considered statistically insignificant to the study. Therefore, item 20a indicates that the final year female students utilized emergency contraception once, item 20b indicates that final year female students have utilized emergency contraception twice, item 20d indicates that final year female students have never utilized emergency contraception.

### Findings

The following findings emerged from the study based on research questions answered.

#### A. Level of awareness of emergency contraception use among final year female students of UNN.

The following exposes the level of awareness of emergency contraception utilization among final year female students

1. Final year female students have heard about emergency contraception.

2. Final year female students first learnt about emergency contraception from schools, family and friends, and the media.
3. Final year female students have utilized emergency contraception.
4. Final year female students are of the opinion that emergency contraception should be made available without prescription.
5. Final year female students are aware that emergency contraception are used to prevent pregnancy after unprotected sex.
6. Final year female students are aware that emergency contraception is a method to prevent sexually transmitted infections (STIs).
7. Final year female students are aware that emergency contraception can be used after contraceptive failure.

#### B. Factors influencing the utilization of emergency contraception among final year female students of UNN.

The following exposes the factors influencing the utilization of emergency contraception utilization among final year female students

1. Accessibility of emergency contraception.
2. Fear of stigma or judgment.
3. Peer pressure.

**C. Risks associated with constant utilization of emergency contraception among final year female students of students of UNN.**

The following exposes the factors influencing the utilization of emergency contraception utilization among final year female students.

1. Inconsistent use of emergency contraception may increase the risk of unintended pregnancy.
2. Frequent use of emergency contraception can lead to changes in menstrual cycle.
3. Emergency contraception does not provide full protection from sexually transmitted infections (STIs).
4. Emergency contraception could fail as a primary method of contraception.

5. Emergency contraception can cause hormonal imbalance for some females.

**D. Frequency of use of emergency contraception by final year female students of UNN.**

1. Final year female students have utilized emergency contraception once or twice.
2. Final year female students have never utilized emergency contraception.

**Conclusion**

Based on the findings it was concluded utilization of emergency contraception among final year female students in university of Nigeria Nsukka is common to some group of people but certain individual like rape victims are not always aware of the use of contraceptives

**References**

- Aiken, A. R. A., & Trussell, J. (2021). A framework for strengthening the evidence base for EC self-administration. *Contraception*, 104(1), 16–20.
- American College of Obstetricians and Gynecologists (2018). Emergency contraception. *ACOG Practice Bulletin No. 152*. *Obstetrics & Gynecology*, 131(4), e49–e64.
- American College of Obstetricians and Gynecologists. (2021). *ACOG Practice Bulletin No. 258: Emergency contraception*.
- American College of Obstetricians and Gynecologists (ACOG). (2021). *Pregnancy FAQ004: How Your Fetus Grows During Pregnancy*.
- Amorha, Adayi, Ayogu, & Ukwe, (2017). Knowledge, attitudes and use of emergency contraceptives among female students of the university of Nigeria.
- Bandura, A. (1986). *Social foundations of thought and action: A social cognitive theory*. Englewood Cliffs, NJ: Prentice-Hall.
- Brown, L., & Jones, S. (2018). Understanding the Challenges of Final Year Female Students: A Qualitative Exploration. *Women in Higher Education*, 27(3), 123-137.
- Cameron, S. T. (2020). Emergency contraception education and training in sexual health settings. *BMJ Sexual & Reproductive Health*, 46(3), 157–164.
- Cleland, J., Bernstein, S., Ezeh, A., Faundes, A., Glasier, A., & Innis, J. (2006). Family planning: the unfinished agenda.
- Cleland, K., Raymond, E., & Trussell, J. (2014). Emergency contraception: A last chance to prevent unintended pregnancy.
- Creinin, M. D., & Schlaff, W. (2021). New developments in emergency contraception. *Obstetrics & Gynecology*, 137(2), 423-434.
- Dunson, D. B., Colombo, B., & Baird, D. D. (2002). Changes with age in the level and duration of fertility in the menstrual cycle. *Human Reproduction*, 17(5), 1399-1403.
- Finer, L. B., & Fine, J. B. (2014). Trends in unintended pregnancy in the United States: 1991-2008. *Contraception*, 87(3), 259-263.
- Gipson, J. D., Koenig, M. A., & Hindin, M. J. (2017). The Effects of Unintended Pregnancy on Infant, Child, and Parental Health: A Review of the Literature. *Studies in Family Planning*, 48(3), 225–243.
- Glasier, A., Cameron, S. T., & Blithe, D. (2018). The safety of ulipristal acetate for emergency contraception. *F1000Research*, 7, 591.
- Grossman, D., & White, K. (2014). Contraceptive challenges and choices: Emergency contraception. *American Family Physician*, 89(4), 241-248.
- Kavanagh, J., & Kelly, C. (2018). Emergency contraception: Spotlight on ulipristal acetate. *Pharmacy and Therapeutics*, 43(3), 145-148.
- Miller, L., & Patton, C. (2017). Emergency contraception: How to help patients select a method. *Journal of Family Practice*, 66(10), 606-611.



- Nguyen, T., & Smith, K. (2020). Exploring the Academic and Personal Challenges of Final Year Female Students: A Mixed-Methods Study. *International Journal of Gender and Education*, 35(4), 321-339.
- Peterson, H.B., Hatcher, R. A. (2018). Surgical sterilization: A long-standing method of contraception. *Journal of Reproductive Medicine*, 63(4), 321-328.
- Raymond, E. G., & Cleland, K. (2015). Clinical practice: Emergency contraception. *The New England Journal of Medicine*, 372(14), 1342-1348.
- Shaw, M. W., & Jameson, L. R. (2002). Ancient contraceptive practices: Insights from Egyptian papyrus scrolls. *Journal of Historical Medicine*, 7(3), 215-230.
- Smith, J. (2019). Understanding Negative Impact: Definitions, Measurement, and Implications. *Journal of Social Psychology*, 25(2), 123-135.
- Trussell, J., & Raymond, E. G. (2014). Emergency contraception: a last chance to prevent unintended pregnancy. *Contemporary Readings in Law & Social Justice*, 6(1), 67-87.
- Turok, D. K., & Godfrey, E. M. (2015). Emergency contraception. *American Journal of Obstetrics and Gynecology*, 213(4), 426-433.
- Westhoff, C. L., & Torgal, A. H. (2017). Emergency contraception. *Obstetrics and Gynecology Clinics of North America*, 44(4), 677-686.
- Winner, B., Peipert, J. F., Zhao, Q., Buckel, C., Madden, T., Allsworth, J. E., & Secura, G. M. (2012). Effectiveness of long-acting reversible contraception. *New England Journal of Medicine*, 366(21), 1998-2007.
- World Health Organization. (2012). *Selected Practice Recommendations for Contraceptive Use*. 2nd edition.