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Research Article

Practice of Emergency Contraception among Healthcare Workers in a Tertiary Health Institutions in Abakaliki, Ebonyi State: A Qualitative Study

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Abstract

Introduction: Emergency contraception (EC) reduces the risk of pregnancy after intercourse but before pregnancy establishment. EC options include hormonal methods like levonorgestrel and ulipristal acetate, and the mechanical method, the copper intrauterine contraceptive device (IUD).

Objectives: This qualitative study assessed healthcare workers' knowledge, practice, and influencing factors regarding EC at Alex-Ekwueme Federal University Teaching Hospital, Abakaliki.

Materials and Methods: Focus group discussions involved Junior Residents, Senior Residents, and Consultants from the Departments of Obstetrics and Gynaecology and Family Medicine.

Results: Findings revealed that participants demonstrated good knowledge of levonorgestrel, limited awareness of the copper IUD, and poor understanding of ulipristal acetate. Levonorgestrel was the most commonly used EC method among all participants. Key factors affecting their practice included drug availability and religious beliefs. The availability of levonorgestrel pills made them the preferred choice, while poor acceptance and limited accessibility of intrauterine contraceptive devices constrained its use.

Conclusion: In conclusion, healthcare workers at the hospital primarily relied on levonorgestrel due to its widespread availability. Religious beliefs and limited knowledge of alternatives, such as ulipristal acetate and the copper IUD, further influenced their practice. Addressing these gaps through improved education, accessibility, and awareness programs could enhance the effective use of diverse emergency contraception methods.

Keywords: *Emergency; Contraception; Levonorgestrel; Gynaecology*

Introduction

Emergency contraception (EC) serves as a crucial intervention to prevent pregnancy after unprotected intercourse but before a pregnancy is established. Commonly known as "morning-after" or "postcoital" pills, EC should be initiated promptly as its efficacy declines with time [1]. EC provides women with a second chance to avoid unintended pregnancy, preventing up to 95% of pregnancies within five days after intercourse. Available options include hormonal methods like levonorgestrel (LNG) and ulipristal acetate, and mechanical methods such as the copper intrauterine device (IUD) [2]. Other hormonal methods include the Yuzpe regimen (combined oral estrogen and LNG) and mifepristone [3].

The primary indications for EC include concerns about contraceptive failure, improper use of contraception, or lack of contraceptive use, as well as situations involving sexual abuse or coercion. Examples of improper contraceptive use include condom breakage, missed pills, or delays in contraceptive injections [4]. Among EC options, the copper IUD (cuT 380A) is the most effective, reducing the risk of pregnancy by over 99% when inserted within five days of intercourse [5]. It can also serve as ongoing contraception. Oral ECs like LNG and ulipristal acetate are safe alternatives, with LNG effective up to 72 hours and ulipristal effective for up to 120 hours after intercourse. LNG can be taken as a single dose (1.5 mg) or in two doses (0.75 mg each, 12 hours apart) [6].

The mechanisms of action of EC vary. LNG delays follicular development if taken before the luteinizing hormone (LH) surge, while ulipristal acetate inhibits follicular rupture even after LH surges [5,6]. Mifepristone blocks progesterone receptors to prevent ovulation and disrupt endometrial development. The copper IUD affects sperm viability and disrupts the oocyte and endometrium, preventing implantation. Factors that reduce EC efficacy include obesity, delays in initiation, repeated unprotected intercourse in the same cycle, and drug interactions (e.g. rifampicin, glucocorticoids, and phenobarbital) [6,7].

EC does not protect against sexually transmitted infections (STIs), including HIV. To prevent STIs, the consistent and correct use of condoms is recommended [8]. Additionally, the oral ECs (ulipristal and LNG) are preferable to the Yuzpe method due to fewer side effects like nausea and vomiting. Single-dose regimens also improve compliance. Studies suggest that providing women with an advance supply of EC increases timely use after unprotected intercourse [9].

Nigeria was among the first countries to make EC accessible to women, with national guidelines recommending the involvement of medical doctors, nurses, pharmacists, and community health workers in EC prescription [10]. Common methods include LNG, the Yuzpe regimen, and the copper IUD. However, studies in Nigeria show poor EC practices among healthcare workers. In Lagos, only 56% of healthcare workers had prescribed EC, with most favoring oral pills over IUDs. Similarly, in Borno State, only 36.2% had ever prescribed EC, predominantly pharmacists. Barriers to EC practice include a lack of knowledge about its mechanism of action, misconceptions about EC being abortifacient, and inadequate understanding of the recommended timeframes for use [11].

The commonest indications for EC in Nigeria are unprotected sexual intercourse and rape. Misconceptions about EC's safety, mode of action, and potential to encourage risky sexual behavior or discourage regular contraception use further hinder its acceptance. Limited awareness and knowledge among women also contribute to low uptake, as they often do not seek EC when needed. Addressing these barriers is crucial to reducing unintended pregnancies, unsafe abortions, and associated maternal mortality [12].

Globally, 61% of unintended pregnancies end in induced abortions, with 45% being unsafe and 97% occurring in developing countries. In sub-Saharan Africa, particularly Nigeria, the unmet need for contraception (19%) and low contraceptive prevalence (17%) exacerbate these issues. Nigeria's high rates of unintended pregnancies and unsafe abortions contribute to preventable maternal deaths. EC, therefore, has significant potential to improve reproductive health outcomes in the region [13].

Healthcare providers play a central role in the accessibility and uptake of EC. Their knowledge and practice of EC directly impact women's ability to prevent unintended pregnancies [14]. Obstetricians and gynecologists tend to have better knowledge of EC, while other healthcare providers may lack adequate understanding. Misconceptions about EC being abortifacient, poor knowledge of its time-sensitive use, and unawareness of its mechanisms are major barriers among healthcare workers. Training and education of healthcare workers are vital to addressing these gaps, as they are well-positioned to counsel women and prescribe EC appropriately [15].

The World Health Organization (WHO) advocates for advanced EC prescriptions to improve access but emphasizes the need to encourage ongoing regular contraception for long-term pregnancy prevention. Women who use the copper IUD as EC can continue using it as a long-term method. After providing EC, healthcare providers should counsel women to abstain from sexual intercourse until regular contraception is initiated, except for those who received an IUD [16].

Improving healthcare providers' knowledge of EC mechanisms, safety, side effects, and contraindications is essential to preventing misinformation, misuse, and failure. Misguided advice or incorrect prescriptions can undermine the benefits of EC. Additionally, educating women about EC can enhance its uptake, particularly in settings where unintended pregnancies and unsafe abortions are prevalent [17].

Given Nigeria's maternal health challenges, EC remains a critical intervention to reduce unintended pregnancies and maternal mortality. Addressing barriers to EC use-such as provider misconceptions, poor awareness among women, and limited access to services-will improve its acceptance and effectiveness. Training healthcare providers and promoting public awareness are key strategies to ensure that women have timely access to EC and accurate information about its use. By prioritizing EC, Nigeria can make significant progress toward improving reproductive health and reducing preventable maternal deaths [18].

Education and provision of emergency contraception by healthcare providers enhance community awareness, utilization, and prevention of unplanned pregnancies, reducing maternal mortality risks. In Sub-Saharan Africa, unintended pregnancy rates are 29%, with Nigeria at 10.8%. Limited knowledge among healthcare workers affects practice, especially in Southeast Nigeria, prompting this study to examine factors influencing emergency contraception in Abakaliki, Ebonyi State [19].

Methods

This was a qualitative study using Focus Group Discussion. Using semi-structured, open-ended questions. A 7-item questionnaire collected participants' demographic details. The sessions lasted approximately 60 minutes, with sessions recorded using an audio device. A research assistant supported the researcher during the sessions. Six focus groups of the three cadres of specialist of the two departments including registrars, senior registrars and consultants were recruited. Each focus group comprised of at least five respondents. They were asked open ended questions to generate discussion. The questions asked included; what do you understand by emergency contraception? What form of emergency contraception have you ever prescribed and other available options of emergency contraception? In which situations have you prescribed emergency contraception? Any other indications? Within what interval do you advise the uses of EC? Do you have any feedbacks from clients on the use of EC? What is your opinion on provision of advance prescription of EC? What are the content of counselling following emergency contraception? What factors facilitate your practice of emergency contraception? What factors militate against your prescription of emergency contraception? Do you have any reservations with the prescription of emergency contraception?

Recruitment

Participants for the study were purposively recruited from Junior Residents, Senior Residents, and Consultants in the Departments of Obstetrics and Gynaecology and Family Medicine at Alex-Ekwueme Federal University Hospital, Abakaliki. Selection ensured all participants provide contraceptive or family planning services. Individuals were approached privately, informed about the discussion and

their consent obtained. Six focus groups were conducted-three per department, categorized by cadre. Discussions took place in seminar rooms with comfortable seating and air conditioning, lasted about 60 minutes, and conducted in English, and recorded with an audio device.

Data collection

Focus group discussions on emergency contraception.

Data analysis

Demographic data collected from each focus group was presented as a descriptive statistics. Focus group data was analysed by thematic analysis involving identifying themes that emerge from the data [22]. The stages of analysis involved familiarization with the data, generation of codes until saturation was reached, searching, reviewing and naming themes and finally generating a report [23].

Ethical approval

Ethical approval was obtained from the Human Research and Ethics Committee of Alex Ekwueme Federal University Teaching Hospital Abakaliki, Ebonyi state.

Results

Fourty-two (42) medical doctors in Obstetrics and Gynaecology and Family Medicine departments were approached and consented to participate in the study but only 33 attended the focus discussion. There was six focus group discussion, each had 5-6 participants.

Table 1 shows the demographic characteristics of the participants. Just below half (48.5%) of the participant were aged 40-44 years and constituted the largest population followed by the 35-39 years age group (30.3%). There were more male (81.8%) and more married participants (78.8%) than female (18.2%) and single (21.2%) participants respectively. Majority of the participants were of the Catholic denomination as they constituted 48.5% of the participants

Age	**No (n)**	**Percentage (%)**
25-29	1	3.0
30-24	2	6.1
35-39	10	30.3
40-44	16	48.5
45-49	3	9.1
Sex		
Male	27	81.8
Female	6	18.2
Marital status		
Single	7	21.2
Married	26	78.8
Tribe		
Igbo	33	100
Denomination		
Roman Catholic	16	48.5
Anglican	7	21.2

Pentecostal	10	30.3
Cadre		
Junior Resident	11	33.3
Senior Resident	12	36.4
Consultant	10	30.3
Years of experience		
1-5	4	12.1
6-10	6	18.2
11-15	15	45.5
16-20	4	12.1
>20	4	12.1

Table 1: *Demographic characteristics of participants.*

The qualitative data was subjected to thematic analysis to bring out the core themes in the discus. These are shown below.

Emergency contraception

Emergency contraception is necessary in cases of unprotected sexual intercourse and sexual assault of minors. Participants in the two departments were able to accurately describe emergency contraception, which is usually offered as progesterone hormonal medication. The commonest options of emergency contraceptives include levonorgestrel, ulipristal acetate, and intrauterine devices.

Knowledge of emergency contraceptives

Emergency contraception works by delaying ovulation and altering endometrial parameters. It is used for people who had unprotected sexual intercourse, cases of sexual assault, married women who do not want to have unwanted pregnancy, missed combined oral contraceptive pills, slippage of condom, and unprotected consensual sexual intercourse. There are no limitations to the use of emergency contraception, but some participants wrongly opinioned that certain criteria and diseases preclude its use. Emergency contraception should be taken as early as possible, with an interval of 72 hours for LNG and 120 hours for UPA and IUD. However, Family Physicians were not aware that emergency contraception can be given up to 120 hours.

Options of emergency contraceptive

All participants pointed out levonorgestrel as the most common emergency contraceptive they ever prescribed, with most being knowledgeable about its dosage regimen. The reason behind the prescription pattern was that LNG is the most common due to its availability, accessibility, and low price. Only a few participants have ever prescribed IUD, and the commonest reasons for poor utilization were lack of acceptance by the patient and lack of skill by Family Physicians. Ulipristal acetate was not prescribed by the group because it is not readily available and is more expensive than LNG.

Factors affecting emergency contraceptive prescription

Most participants do not prescribe emergency contraception due to their belief or personal experiences. Some participants have experienced side effects of LNG, such as nausea, vomiting, delayed periods, breast tenderness, and irregular vaginal bleeding. However, they have encountered these side effects in practice.Most respondents were not in support of providing advanced prescriptions of emergency contraception and do not practice it. They would rather counsel those requesting for it on taking regular contraception. Some participants believe that advanced prescriptions encourage sexual promiscuity and should not replace regular contraception.

Opinion on advanced prescription

A large number of participants expressed dissatisfaction with advanced prescriptions of emergency contraception, arguing that it should not replace regular contraception and encourage sexual promiscuity. Counseling is also necessary for those seeking emergency contraception, ensuring they understand the drug's benefits and the time of use for maximum benefit.

Factors facilitating practice

Factors facilitating practice of emergency contraception include availability, accessibility, and price of the drug. However, some participants argue that the invasive nature of IUD and the low pill burden of LNG may discourage the practice of emergency contraception.

Factors mitigating against practice

Factors mitigating against effective practice of emergency contraception include: poverty, ignorance, lack of enabling environment, religious and cultural beliefs, abuse of emergency contraceptive pills, age of client, and fear of possible complications following unprotected sexual intercourse. A consultant Family Physician described religious factors as a significant factor that negatively impaired her practice of emergency contraception. Reservation on emergency contraception is not a concern for many participants, with some emphasizing its importance in preventing maternal mortality. However, some participants argue that it can promote sexual promiscuity and expose patients to various diseases.

Discussion

The study explored healthcare workers' knowledge, practice, and barriers regarding emergency contraception (EC) at Alex-Ekwueme Federal University Teaching Hospital, Abakaliki, Ebonyi State. Participants demonstrated strong knowledge of levonorgestrel (LNG), the most widely available, accessible, and affordable EC option. Although all participants were aware of other EC methods, such as ulipristal acetate (UPA) and the copper intrauterine contraceptive device (IUD), only a few had prescribed IUDs, and none had prescribed UPA. This limited practice is consistent with findings from other regions in Nigeria and globally, where LNG remains the most utilized method [13].

Participants showed a solid understanding of EC mechanisms, including the action of LNG and IUDs, though some held misconceptions, such as the belief that EC causes congenital malformations or abortions. Most participants knew the correct dosage and timing of LNG administration, with a few unaware of its extended effectiveness up to 120 hours after intercourse. Similarly, while some were aware of UPA's extended window of efficacy, misconceptions about its classification as EC persisted. Barriers to IUD use included patient resistance and perceptions of invasiveness, echoing findings in other studies [20].

The primary indications for EC reported were rape and missed combined oral contraceptive pills, aligning with other studies in Nigeria and South Africa. While participants were aware of LNG side effects, a few mistakenly believed in the need for medical eligibility criteria before its use. Advanced prescription of EC was rare due to religious beliefs, concerns about promoting promiscuity, and fear of sexually transmitted infections (STIs). Similar findings were reported in South Africa and Iran, where religious and safety concerns influenced practices. Counseling was the preferred approach, focusing on EC mechanisms, efficacy, safe sexual practices, and regular contraception [12,17].

Barriers to EC practice included limited drug availability, legal issues concerning minors, poverty, patient ignorance, and fear of STI and HIV transmission. Participants also noted challenges with IUDs due to invasiveness and patient reluctance. These findings align with studies in Northern Nigeria and the United States, where similar concerns about EC safety and accessibility were prevalent. Despite these barriers, participants emphasized the importance of educating clients on EC options and promoting regular contraceptive methods [14,20].

Conclusion

In conclusion, this study identified gaps in healthcare workers' knowledge and practice of EC, primarily due to the limited availability of UPA and patient resistance to IUDs. Levonorgestrel was the only widely used EC method in Abakaliki, restricting the range of options available. Addressing these gaps requires targeted education programs for healthcare workers and broader community awareness campaigns on EC options. Enhancing the availability of UPA and addressing misconceptions could improve the practice and acceptance of diverse EC methods, ultimately promoting better reproductive health outcomes [19].

The readily availability of levonorgestrel and poor acceptance of intrauterine contraceptive device limited the practice of emergency contraception to mostly levonorgestrel pill.

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Competing Interests

The authors declare that they do not have any conflicts of interest.

Ethics Approval and Consent to Participate

Ethical clearance for this study was obtained from the Research and Ethics Committee of Alex Ekwueme Federal University Teaching Hospital and informed consent was obtained and confidentiality ensured (AE-FUTHA/REC/VOL.3/2023/212).

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