

## Factors associated with the Practice of Emergency Contraceptive

Jembere Tesfaye Deressa<sup>1</sup>, Yang Luo<sup>2\*</sup>

<sup>1</sup>XiangYa Nursing School of Central South University, China

<sup>2</sup>Department of Clinical Nursing XiangYa Nursing School of Central South University, China

### ABSTRACT

Contraceptive became widely discussed issue globally with a wide variety but underutilized. Unintended pregnancies occur among women of all incomes, educational levels, and ages associated with many negative health and economic consequences. Emergency contraceptive can prevent pregnancy, when used after unprotected sexual intercourse around the time of ovulation. It is unique among modern contraceptive methods in its capacity to prevent pregnancy and provides a critical time-sensitive opportunity for all women in reproductive age group to prevent undesired pregnancy. To reduce unintended pregnancy and improve reproductive health in this globe women need better access to reproductive health care services, including emergency contraceptive. The findings suggest that sexual and reproductive health education, counseling, and contraceptive provision are effective in increasing sexual knowledge and contraceptive use, which decrease its consequence. The purpose of the review was to describe the factors associated with the use of emergency contraceptive. The use of emergency contraceptive prevents unintended pregnancy and its magnitudes which are major public health problems both in developed and developing countries but due to different factors usage is low.

**Key Words:** contraception, emergency contraceptive, factors, practice.

### Introduction

Contraceptive use is widely recognized as a means of reducing adverse health-related outcomes and most women who used emergency contraceptive was due to unprotected sexual intercourse or condom failure and/or with the lapsed use of any method; so remain at risk of pregnancy unless they commence an effective method of contraception.[1-3]Emergency contraceptive is a unique among modern contraceptive methods in its capacity to prevent pregnancy after sex and commonly acting throughout the world by reducing the risks related reproductive health.[4]

Unintended pregnancy is an important public health problem both in developing and developed countries because of its negative effects on both woman health and child which is due to underutilized or nonuse and/or misuse of emergency contraceptive in which awareness conveyed big difference among population but existed common knowledge gap.[5]

\*Correspondence

**Prof. Yang Luo**

Department of Clinical Nursing XiangYa Nursing School of Central South University, China

In this finding the general awareness in the total population were 1.1% but among these women it was 7.4%. Effective emergency contraceptive methods have become more readily available over the counter but abortion was estimated to be 43.8 million among women of reproductive age between 15 and 44 occurred globally in 2008, of which about 49% were unsafe.[6, 7]‘In the reduction of high rates of unintended pregnancies and induced abortion dramatically, widespread use of emergency contraceptive is important and timely use of emergency contraception may be one tool that has the potential to prevent unintended pregnancies and abortions by decreasing the risk of pregnancy after unprotected or under protected intercourse’.[8]

Intrauterine devices (IUDs) are included in the range of emergency contraceptive options because they are safe, highly effective and cost-effective when left in place as ongoing contraception whenever clinically feasible after unprotected sexual intercourse.[9, 10]The study concluded that emergency contraceptive pills haven’t shown to reduce pregnancy or abortion rates at the population level, they are important option for individual women seeking to prevent pregnancy after

unprotected sexual intercourse because this activity happened intentionally or unintentionally and Mifepristone has been most widely studied as a means of nonsurgical medication abortion in early pregnancy.[11, 12] However, the usage of contraceptive including emergency contraceptive is increasing both in developing and developed countries but unintended pregnancies are still persistent.[13] The heard information yields knowledge, which may reflect practice, however even most of respondents' ever heard of it and sexually active, have had knowledge of it while healthcare professionals including doctors who counsel emergency contraceptive users have knowledge gap and misconceptions about emergency contraceptive.[14, 15] Improving access to emergency contraceptive by providing it over the counter or in advance would not promote its abuse nor encourage risky sexual behaviors, but may further facilitate the timely use so as to achieve the best efficacy.[6]

### Emergency Contraceptive

Emergency contraception to prevent pregnancy after episodes of unprotected sexual intercourse has existed since ancient times and it is the only immediate option left for a woman who has had unprotected intercourse and is unprepared for a pregnancy. Modern medicine began to use hormonal methods in the 1960s, and today emergency contraception is used regularly in many countries.[6, 16]

Modern emergency contraceptives include methods that act after intercourse to reduce the risk of pregnancy when other methods fail or when no regular contraception is used and the effectiveness of emergency contraceptive pills relies heavily on prompt administration, better access for user is essential. Currently there are different methods in widespread use worldwide: Yuzpe method with combined monophasic contraceptive pills (COCs), High-dose progestin-only pills (POPs), i.e. Plan B, Ella (ulipristal acetate), a progesterone antagonist, which is effective up to 5 days, and Copper intrauterine device (IUD) insertion. Neither hormonal method is an abortifacient as well as they do not disturb an implanted pregnancy or the method is not an abortifacient; it is not effective once the process of implantation has begun, and it does not harm the mother or the fetus. Timing is an important factor and emergency contraceptive may be effective when taken within 72-120 hours depending on the method available.[9, 17, 18]

### Effectiveness

The effectiveness of emergency contraceptive depends on time and types. The Yuzpe and Progestin Only Pills methods are more effective the sooner it is taken. Progestin-Only Pills use within 1-3days results in 2.7

pregnancies per 100 women or 97.3% effective. Combined Oral Contraceptive use within 1-3days results in 4.3 pregnancies per 100 women or 95.7% effective. Ella, used within 5 days (120 hours), results in 2 pregnancies per 100 women and is up to 98% effective. The effectiveness of Combined Oral Contraceptives is about 82% after 24 hours and 92% before 24 hours. Plan B one step is 88% effective after 24 hours and up to 95% before 24 hours. Mifepristone is effective but registered as emergency contraceptive pill only in few countries and use is limited as it is also used as an abortion pill. Forty-two studies showed that the copper IUD is highly effective (only 0.09% among 100 pregnancies) but its use is limited because of the technical skill required for successful insertion.[19-21]

### Mechanism of action

Emergency contraceptive works primarily by inhibiting ovulation, preventing implantation or disrupting implantation and in the normal menstrual cycle, estrogen and progesterone levels are low after a menstrual period ends which is followed by increases in follicle-stimulating hormone (FSH) and luteinizing hormone (LH); as the LH level spikes, a follicle develops and ruptures in the ovary, releasing an ovum and the ruptured follicle seals and starts to produce progesterone in increasing levels; that is corpus luteum indicating if fertilization and implantation do not occur, estrogen and progesterone decrease, the uterine lining is shed, and the cycle repeats or if conception does not occur, the corpus luteum undergoes a process of regression.[22-24]

### Factors associated with emergency contraceptive practice

#### Awareness and knowledge

Although adolescents have an awareness of emergency contraception, more comprehensive knowledge is needed[25] Among 199 clinics used for knowledge assessment of copper intrauterine device users, the primary outcome was availability of the copper intrauterine device as emergency contraceptive and majority of the clinics including family planning clinics offered the use of it but knowledge gap was common as they didn't recommend as emergency contraceptive and this method act as long-acting reversible contraceptive too.[26, 27] Study result reported that even among reproductive health specialists, only 36% provided copper IUD as emergency contraceptive in their practice and majority of the studies proved that starting from teenagers age group to adolescents, the awareness and knowledge of condom was adequate and improved with increasing grade at school but use of contraceptive other than condom was poor that

indicated disparities between knowledge and practice.[28,29, 30] On the other hand, if there was prior counselling regarding to emergency contraceptive, the user may be benefitted as medical eligibility criteria recommended person who want to use the method; should be informed of all options available before provision and it is better if the provider who provide this service disclose him/herself.[31] The risk of adverse outcome like pregnancy, uterine perforation, infection, heavy bleeding and/or removal for bleeding associated to IUDs among younger or 25 years women was low and clinically not meaningful inferred that IUDs are still safe for young women and provide highly effective reversible contraception.[32]

According to the Centers for Disease Control and Prevention (CDC), unintended pregnancy can be associated with an increased risk of morbidity for women as well as with health behaviors during pregnancy that are associated with adverse events, including a delay in prenatal care. Quality of poor relationship and lack of social support are considered risk factors for psychological distress and unplanned pregnancy was associated with a significantly increased odds of psychological distress compared to planned.[33]

The availability of emergency contraceptive pills among reproductive age group was well known but it was still underutilized. Appropriate awareness of emergency contraceptive pills was influenced by information obtained from healthcare providers (AOR=3.93) and school education(AOR=1.82) as well as age and changing place from one to another were risk factors of repeated abortion.[34, 35] Among 449 participants 85.5% had ever heard about emergency contraceptive pills from television (77.9%) and 54.5% knew that as it can be used to prevent unintended pregnancy within the given timeframe and awareness was significantly more among participants with science education background ( $p=0.001$ ) and those who had taken reproductive health education previously ( $p=0.043$ ).[36]

Awareness of emergency contraceptive in both developed and developing countries was high but the utilization was generally low because of this improved educational effort on reproductive health, probably country specific would be required to increase the use of highly effective contraception methods and overcome barriers of abortion which is the outcome of unintended pregnancy.[37]Education and policies are important factors for handling emergency contraceptive throughout the world focusing on the reproductive health needs including college health center of students by accessibility, availability and provider who would

provide timely based on user request and healthcare providers had different understandings of policies about prescribing contraceptives when on-call, when students called in, and for students who had graduated. Education and policies about handling emergency contraceptive and contraception requests are necessary so that clinicians meet students' reproductive health needs.[38] Easier access to help women prevent unwanted pregnancy and giving in advance could ensure that women have it on hand in case they need and study proved that women who had emergency contraceptive in advance were more likely to report use of medication and to use it sooner after sex but obtaining emergency contraception within the recommended time frame is difficult for many women.[39]

Information on the contraceptive effectiveness, safety and convenience of emergency contraceptive methods is crucial for reproductive healthcare providers and the women who they serve.[19, 40] Not all women are willing to use contraceptives even when at risk of conceiving because of this the use of emergency contraceptive is underutilized in preventing unintended pregnancy that improving knowledge may contribute to determine the use of emergency contraceptive [41]Study reported that 35.5% groups of men and women used natural contraceptive methods and in similar study 25.7% had used barrier contraception inconsistently but very small percentage of knowledge in both groups about emergency contraceptive; more number of men knew about emergency contraceptive than women. Awareness about contraceptives needs to be improved and emergency contraceptive should be advocated as a backup method. More efforts are required to generate awareness about regular use of effective contraception and emergency contraception if required.[42]

Increased awareness of the importance of preconception care can be achieved through public outreach and improved collaboration between healthcare providers because healthcare provider is one source of information for emergency contraceptive promotion and counseling to increase user's positive attitudes towards it and knowledge level of the user for better outcome i.e. utilization.[43, 44]Area of origin or place of residence was one factor for the practice of emergency contraceptive and providers who were practicing in urban location were significantly more likely to be planning to participate and rural health disparities are due to multiple factors including inadequate access to medical care, in part from a shortage of physicians and differences in socioeconomic status, especially for women.[45] More male students (72 %) than females (59 %) were

sexually active but females were more likely to have knowledge of emergency contraceptive use compared to males and all female students were 'aware' that the effectiveness of the contraceptives used, as compared to male students and the lack of knowledge where to obtain emergency contraceptive information and methods can be a critical barrier to eventual use of emergency contraceptive and one-third of maternal deaths in Sub-Saharan Africa associated with unintended pregnancy but contraceptive has been found to be reliable and inexpensive.[46, 47] Factors associated with increased maternal mortality from unsafe abortion in developing countries include inadequate delivery systems for contraception needed to prevent unwanted pregnancies, restrictive abortion laws, encompassing negative cultural and religious attitudes towards induced abortion, and poor health infrastructures for the management of abortion complications.[48] The main influencing factor for non-use of any contraceptive was cohabitation with a partner, no pregnancy risk awareness, undecided pregnancies, no previous use of emergency contraception, event and age at event.[49] Providers should consider various reasons when counseling users on contraceptive options and men's high awareness of contraceptive practices and their use of some cooperative methods reveal their involvement in contraceptive practices within the context of relationships.[50] This study reported that withdrawal appears to be associated with low level of education and financial difficulties and having engendered a pregnancy that was terminated appears to influence men's contraceptive practices.

Global challenges new opportunities of emergency contraception showed that correct knowledge of and positive attitude towards emergency contraceptive pill contributed to estimated future use of emergency contraceptive pills.[4] In the study conducted of 223 participants 64% had heard of emergency contraceptive, 56% were sexually active those who were more likely to use emergency contraceptive (OR=2.3) and majority of them concerned about potential short-term and long-term adverse effects as well used mainly in case of rape, breakage of condom and non-use of any other contraceptive.[51]

#### Attitude

Positive attitude towards emergency contraceptive is one outcome of contraception counselling that reflects satisfaction and knowledge about emergency contraceptive which can also be reflected by asking and answering questions on the issue.[52, 53] Misconceptions regarding to emergency contraceptive can affect one's knowledge and attitude towards it,

which may play a great role in the participant of emergency contraceptive even including healthcare personnel.[54] Majority of the adolescents linked emergency contraceptive with the prevention of sexually transmitted infections, abortifacient drugs, regular contraceptive and didn't believe that emergency contraceptive can be received by their sexual partner but if they discussed with their partner openly the problem of unintended pregnancy might be reduced since the partner would be responsible.[55] Identifying attitudes towards emergency contraceptive and unintended pregnancy among women of reproductive age group after unprotected heterosexual intercourse might be difficult because majority of them didn't think that they could have become pregnant unintentionally and reproductive health education may tackle this type of problem in the population.[56] Basically, women should have access of emergency contraceptive free of charge or at low cost to increase the acceptance and continuation rate as well to reduce the burden of unintended pregnancy, but barriers limited to users like cost, and stocking practice of emergency contraceptive.[2] Mostly used pills were obtained from pharmacy without prescription and among those who witnessed existence 64% promised to use or might use if needed after receiving information and 42% wished to get without prescription.

Unprotected sex has been associated with increasing age, being married, establishment of trust, recent experience of intimate partner violence, contraceptive side effects, infrequent sexual intercourse, and decreased encouragement and pleasure due to contraceptive use.[57] An intention to use men believe emergency contraceptive can cause sex with multiple partners and women believe that it must be prescribed by physicians and production of hormone during early time may facilitate adolescent for early sexual activity and certain demographic factors like low educational status, socioeconomic, cultural status, little parental monitoring, parental separation, absence of religiosity tends to experience early sexual activity at young age suggesting that appropriate education about sexual relations might reduce the negative effect of sexual relations at a young age everywhere in the world.[58, 59] The study in Kinshasa reported that fear of side effects (especially sterility), costs of the method, sociocultural norms (especially the dominant position of the male in family decision-making), pressure from family members to avoid modern contraception, and lack of information/misinformation are another factors associated with the use of contraceptive.[60]

## Conclusion

This review underscored to describe about emergency contraceptive and related issues like awareness, knowledge, attitudes towards and factors related to them and practice of emergency contraceptive. The correct knowledge of and positive attitudes towards emergency contraceptive pill can contribute to estimated future use of emergency contraceptives. This review finding suggests that sexual and reproductive health education, counselling, and contraceptive provision are effective in increasing sexual knowledge, contraceptive use, and decreasing unintended pregnancy that exposes adolescent for abortion and other pregnancy related complications. Promotion of access to emergency contraception includes educating both users and providers about the method and making emergency contraceptive pills and/or device available to users/customers even before the need arises.

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