

Availability, Awareness, Attitude and Knowledge of Emergency Contraceptives in Dar Es Salaam

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Abstract

Contraceptive methods are useful in family planning and prevention of unwanted pregnancies. Studies done in different countries however have reported poor knowledge and low use of these contraceptives especially the emergency contraceptive pills (ECP). In Tanzania, the awareness and knowledge of women about ECP is not well documented. The aim of this study was to assess awareness, knowledge and attitude of female university students on ECP and the availability of these pills in selected medicines outlets located in Dar Es Salaam city.

A descriptive cross sectional study was carried out using a self administered questionnaire to assess knowledge and attitude towards emergency contraceptive pills among female university students. The simulated client method was used to assess availability of the pills in pharmacies and part II shops in the city.

A total of 350 female students participated in this study of whom, 57% were aware of ECP and only 14% had used them. About half (49%) of the participants had poor knowledge on ECP. The study revealed that 42.3% of the pharmacies and 30% of Part II shops surveyed stock only one brand of ECP which was not registered by the regulatory Authority.

To conclude, low awareness and poor knowledge on ECP was observed among the study population. Only one brand of emergency contraceptive pills was available in both Pharmacies and Part II shops. Unfortunately this brand was not registered by the regulatory authority.

Key words: attitude, awareness, emergency contraceptives, knowledge, unwanted pregnancy.

INTRODUCTION

Contraceptive methods are useful in family planning and prevention of unwanted pregnancies when used properly. Despite the existence of several modern contraceptive methods worldwide, the problem of unwanted pregnancy still exists and it is common among adolescent girls [1]. Many women who get unwanted pregnancy do perform unsafe abortion which is defined by the WHO as a "procedure for terminating unwanted pregnancy either by persons lacking the necessary skills or in an environment lacking the minimal medical standards, or both" [2]. Unsafe abortion has ill effects in women's health and is associated with high morbidity and mortality [3,4,5]. According to the 2008 World Health Organization estimates, about 14% of maternal deaths were due to unsafe abortion in Africa. [2,4]. Among higher education students, unwanted pregnancies pose a major public health problems especially in developing countries and is associated with far reaching effects such as jeopardizing students' educational progress and future careers [1,6]. Using contraceptives can help to reduce unwanted pregnancies and unsafe abortions. Among the various forms of contraception, emergency contraceptives are the only form of hormonal contraceptives that provide women a last chance to prevent unwanted pregnancy after unprotected sex [7]. They may be used when a condom breaks; when oral contraceptive pills have been missed or when a woman is raped or coerced into having sex. Studies done in different countries however, have reported low knowledge and low use of contraceptives especially emergency contraceptive [6,8,9]. In Tanzania the awareness, attitude and knowledge of women about

emergency contraceptive pills is not well documented. This study was undertaken to assess awareness, knowledge and attitude of female university students on emergency contraceptive pills. In addition the study assessed availability of these pills in Pharmacies and Part II shops in Dar es Salaam city, Tanzania.

METHODS

This was a descriptive cross sectional study that was carried out in Dar Es Salaam City. A self administered questionnaire was used to assess awareness, knowledge and attitude towards emergency contraceptive pills among female students of the University of Dar Es Salaam. Study participants were selected by convenient sampling. The questionnaire was pretested and it was distributed only to respondents who gave their consent for the study. Knowledge- questions were presented in the questionnaire. Correct answers were given a score of 1 and incorrect answers 0. The scale for assessing knowledge was from 1-5 scores. Those who scored 4-5 were ranked as having good knowledge. A score of 3 was ranked as average knowledge and below 3 was ranked as poor knowledge. The questions asked and their correct response in bracket were 1. ECP prevent pregnancy. {Yes} 2. ECP are more effective the sooner they are taken. {Yes} 3. The most common side effect of ECP is nausea. {Yes} 4. ECP are 100% effective in preventing pregnancy. {No} 5. If a woman is already pregnant, the use of ECP will terminate the pregnancy. {No} The simulated client method was used to assess availability of the emergency contraceptive pills in pharmacies and part II

shops in the city. (Part II shops are medicines outlets that are licensed to sell only over the counter medicines).

Ethical clearance was obtained from the Ethical Review committee of Muhimbili University of Health and Allied Sciences. Data was analyzed using SPSS version 16.

Table 1. Demographic features of Respondents

Demographic features	Percent
Age	
20 – 22	48.2
23 – 25	37.3
26 – 28	12.8
29 – 31	1.7
Previous place of resident	
Urban	71.3
Rural	28.7
Current marital status	
Single	69.3
Married	12.9
Others	17.8
Year of study	
1 st year	20.3
2 nd year	34.9
3 rd year	28.6
4 th year	16.3

RESULTS AND DISCUSSION

A total of 350 students participated in the study. Demographic features of respondents are shown in table 1. Majority of the participants (86.5%) were between 20 - 22 years of age and the marital status of single was higher compared to the married (69% Vs 31%).

Table 2 Awareness and use of emergency contraceptives

Awareness and use	Percent
Awareness on emergency contraceptives	
Aware	57.6
Not aware	34.2
Not sure	8.2
How to use Emergency Contraceptive pills	
Correct response	20
Incorrect response	80
Time to take Emergency Contraceptive pills	
Within 72 hours	92.5
72 hrs before sex	5
3 days after	2
more than 3 days	0.5

Although 57% of the participants were aware of ECP, only 14% had used ECP (see Table 2). Similar results were obtained from a study done by Obiechina et al. in Nigeria [10] where 38.1% of participating students were aware of emergency contraception while only 8.5% of them had ever practiced it. Another study by Tajure conducted in Ethiopia showed that, 49% of respondents had heard of emergency contraceptives [11]. The results of our study indicate that advocacy on the use of the ECP is highly needed in this community.

The association between previous place of domicile and awareness showed that, there was a significant difference in awareness about ECP between those from rural and urban origin. The awareness was 77.7% and 22.3% for rural and urban respectively (p-value < 0.05)(Pearson Chi-square).

Assessment of methods used to prevent pregnancy revealed high ranking for using a calendar or safe days method (43%) followed by condoms (29.5%) while 20% and 10% applied to abstinence method and oral contraceptive pills respectively (see Table 3). This shows low use of contraceptives. These results are similar to those obtained from study of Ahmed and his team in Ethiopia where only 7.3% of their study population used contraceptives as a method of preventing pregnancy [12]. Noted in this study was a good proportion (35%) who did not report to take any precaution to prevent conception despite belonging to the active reproductive age. It was not possible with our data to establish on whether this group are not involving themselves with sexual acts due to religious, traditions or other reasons.

Table 3. Methods used to prevent Pregnancy and sources of contraceptives

Methods used to prevent pregnancy	Percent
Condom	29.5
None	35.5
Calendar method	43.0
Oral contraceptive pills	10.1
Abstain	20.0
Source of information on contraceptives	
TV/RADIO	16.0
Family	31.7
Formal education	19.1
Newspaper/Magazine	21.1
Healthcare provider	13.7
Sources of Contraceptives	
Pharmacies (private)	89.4
Part II shops	10.6

Five sources of information on ECPs were reported as summarized in table 3 ranging from 13.7% to 31.7%. Family members featured highest and healthcare providers least. Of the two facilities i.e, pharmacies and part II shops, majority of the participants (89.4%) obtained ECP from pharmacies. Similar results were obtained from Nigeria in a study done by Adeyinka et al. [13]. Regarding knowledge on the correct use of ECP, 92.5% of the participants were conversant on the proper timing. (Table 2). This is contrary to a study carried out in Nigeria by Aziken and his team [14] where only 18% of respondents who reported knowing about emergency contraception knew the correct time frame in which ECP must be used so as to be effective. We also found out that about half (49%) of the participants had poor knowledge about ECP on the overall summary index for knowledge (see Figure 1). This is supported by similar findings obtained from previous studies conducted in Cameroon, Ethiopia, and Nigeria [6,14 ,15].

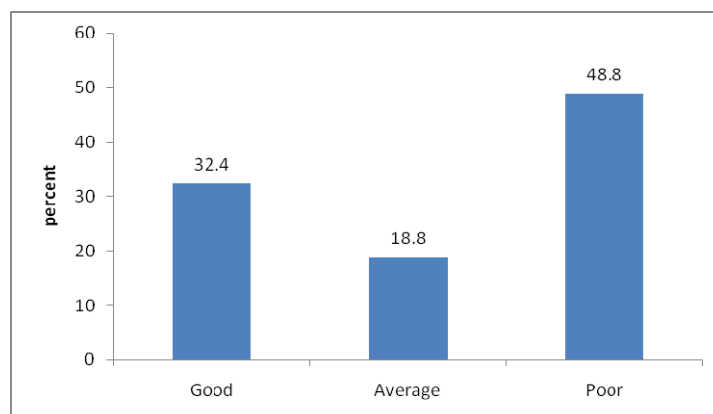


Figure 1. Knowledge of respondents on emergency contraceptives

Table 4. Attitude of respondents towards emergency contraceptives

Options	Yes (%)	NO (%)	Not sure (%)
ECPs would cause more STD/AIDS due to none use of Condom.	65.7	6.2	28.2
ECPs should be sold at low price which is affordable by everyone	50.4	19.8	29.7
I am afraid to use ECPs due to its side effect.	34.1	37.6	28.3
Taking ECPs after unprotected sex is better than regular use of contraceptives	28	31.5	40.5
I will use ECPs in case need arise.	25.9	16.3	57.7
Recommending ECPs use to my friends is dangerous.	58.1	18.6	23.3

The attitude of the participants towards ECPs is shown in table 4. On average 50% of respondent had a positive attitude, even though 34.1% of the respondents were afraid to use ECPs due to their side effects. A positive attitude scoring 100% was reported from interviewed women in a study conducted in Addis Ababa by Tesfaye et al. [16].

A total of 200 Pharmacies and 100 Part II shops were surveyed in Dar Es Salaam city to assess the availability of ECP. Among the surveyed outlets, 42.3% of the Pharmacies and 30% of Part II shops stocked ECP. In Tanzania emergency contraceptives fall under the category of prescription only medicines and should be issued upon presentation of a prescription from an authorized medical personnel. To the contrary our results show that the emergency contraceptives are dispensed without a prescription as recorded by the simulated client. Furthermore, ECP were also dispensed from Part II shops which are medicines outlets licensed to sell over the counter medicines only. In other countries emergency contraceptive pills are categorized as over the counter medicines. The findings of our study calls for a need to review the status of the emergency contraceptive pills and see whether it can be changed from a prescription only medicine to pharmacy only medicine as it is practiced in other countries provided that people's lives are not compromised[17]. Unfortunately the emergency contraceptive brand that was prevailing on the market during the study period was not registered by the

Tanzania Food and Drug Authority (TFDA) an agency responsible for registration of all medicines in Tanzania.

CONCLUSION

This study showed low awareness and poor knowledge on ECP among the study population. Only one brand of emergency contraceptive pills was available in pharmacies and part II shops in Dar Es Salaam. Unfortunately this brand was not registered by the regulatory Authority. Effort should be made to educate the public on emergency contraceptives so as to increase awareness and knowledge of users. Regulatory authority should make sure that available medicines on Tanzanian market are registered in order to protect the public from using counterfeit, substandard or unsafe medicines.

REFERENCES

1. Chris Parker Adolescents and Emergency Contraceptive Pills in Developing Countries FHI Working Paper Series No. WP05-01 © 2005 by Family Health International
2. WHO World Health Organization (WHO), Unsafe Abortion: Global and Regional Estimates of the Incidence of Unsafe Abortion and Associated Mortality in 2008, sixth ed., Geneva: WHO, 2011.
3. Haddad, L. B., and Nour, N. M., Unsafe Abortion: Unnecessary Maternal Mortality. *Rev Obstet Gynecol.* 2009 Spring; 2(2): 122-126.
4. Shah, I., Ahman, E., Unsafe abortion: global and regional incidence, trends, consequences, and challenges. *J Obstet Gynaecol Can.* 2009;31(12):1149-58.
5. Advancing sexual and reproductive health worldwide through research, policy analysis and public education. Guttmacher Institute 2012.

6. Kongnyuy, E.J., Ngassa, P., Fomulu, N., Wiysonge, C.S., Kouam, L., Doh, A.S., A survey of knowledge, attitudes and practice of emergency contraception among university students in Cameroon. *BMC Emerg Med.* 2007; 17;7:7.
7. Grimes, D.A., Benson, J., Singh, S., Romero, M., Ganatra, B., Okonofua, F.E., Shah, I.H., Unsafe abortion: the preventable pandemic. *Lancet.* 2006;368:1908–1919.
8. Byamugisha, J.K., Mirembe, F.M., Fanelid, E., Gemzell-Danielsson, K., Emergency contraception and fertility awareness among university students in Kampala, Uganda. *Afr Health Sci.* 2006 Dec; 6(4):194-200.
9. Mir, A.S., Malik, R., Emergency contraceptive pills: Exploring the knowledge and attitudes of community health workers in a developing Muslim country. *N Am J Med Sci.* 2010;2(8):359-64.
10. Obiechina, N. O.J.A., Mbamara, S.U., Ugboaja, J.O., Ogelle, M., Akabuikie, J.C., Knowledge, attitude and practice of emergency contraception among students in tertiary schools in Anambra State Southeast Nigeria. *International Journal of Medicine and Medical Sciences.* 2010; 2(1): 1-4.
11. Tajure, N., Knowledge, attitude and practice of emergency contraception among graduating female students of Jimma University, southwest Ethiopia. *Ethiop J Health Sci.* 2010;20(2):91-7.
12. Ahmed, F.A., Moussa, K.M., Petterson, K.O., Asamoah, B.O., Assessing knowledge, attitude, and practice of emergency contraception: a cross-sectional study among Ethiopian undergraduate female students. *BMC Public Health.* 2012; 12: 110.
13. Adeyinka, D.A., Oladimeji, O., Adeyinka, E.F., Adekanbi, I.T., Falope, Y., Aimakhu, C., Contraceptive knowledge and practice: a survey of under graduates in Ibadan, Nigeria. *Int J Adolesc Med Health.* 2009 Jul-Sep;21(3):405-11.
14. Aziken, M.E., Okonta, P.I., Ande, A.B., Knowledge and perception of emergency contraception among female Nigerian undergraduates. *Int Fam Plan Perspect.* 2003; 29(2): 84-7
15. Tilahun, D., Assefa, T., Belachew, T., Knowledge, attitude and practice of emergency contraceptives among Adama university female students. *Ethiop J Health Sci.* 2010; 20(3):195-202
16. Tesfaye, T., Tilahun, T., Girma, E., Knowledge, attitude and practice of emergency contraceptive among women who seek abortion care at Jimma University specialized hospital, southwest Ethiopia. *BMC Womens Health.* 2012; 12: 12:3.
17. Downing, S.G., Payze, C., Doyle-Adams, S., Gorton, C., Emergency contraception over-the-counter: practices and attitudes of pharmacists and pharmacy assistants in far North Queensland. *Aust N Z J Obstet Gynaecol.* 2011;51(6):527-31.