

Higher Learning Female Scholars' Knowledge and Usage of Emergency Contraceptive Pills in Dodoma Tanzania

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Abstract:-

➤ Background

An emergency contraceptive pill (ECP) is one of the contraceptive methods that provide the last chance of preventing unplanned and unintended pregnancy once there is unsafe sexual intercourse. Higher learning scholars are at danger of getting an unwanted and unplanned pregnancy which poses a major public health concern and needs to be addressed. Therefore study examines higher-learning female scholars' the level of knowledge and usage of Emergency Contraceptive pills in Dodoma Tanzania.

➤ Methodology

A Quantitative descriptive cross-sectional study and a multi-stage sampling technique were used to obtain 909 higher learning female scholars' aged between 18 to 35 years old residing at Dodoma University, St. John, and College of Business Education in Dodoma, Tanzania. Data was collected using a self-administered questionnaire and analyzed using SPSS version 20

➤ Results

The Respondent rate was 99.7%. Among 906 respondents only 30.6% knew emergency contraceptive pills (ECP), 27.7% had never heard about emergency contraceptive pills and 19.5% had ever used ECPs. Among those with knowledge, 33.7% reported using emergency contraceptive pills while for those with no previous knowledge, 21.8% had used ECP. At CI of 95% and $p < 0.05$, the use of ECPs had statistical significance with age, level of education, marital status, ever heard of ECPs, level of knowledge, and sexual relationship.

➤ Conclusion

The results of the analysis of this study show that the level of knowledge and usage of emergency contraceptive pills among higher-learning female scholars' in Dodoma Tanzania was low. At CI of 95, the use of ECPs had a statistical relationship with age, level of education,

marital status, ever heard of ECPs, level of knowledge, and sexual relationship.

Keywords:- Emergence Contraceptive Pills and Higher Learning Female Scholars.

➤ Implication for Policymakers.

There should be a clear policy on the availability and accessibility of ECPs in higher learning institutions.

➤ Implication for the Public

The higher learning institution should ensure the transmission of knowledge, and practices regarding the ECPS to avoid future consequences of unplanned, and unwanted pregnancies among students in higher learning institutions.

I. INTRODUCTION

An emergency contraceptive pill (ECP) is the modern contraceptive ways used to avoid unintentional and unintended pregnancy once there is unsafe sexual intercourse (1). Unwanted and unplanned pregnancies followed by unsafe abortions that contraceptives can be avoided by using emergency contraceptive pills. Sexual violence and unintentional pregnancies remain key public health concerns; hence the significance of the emergence of contraceptives cannot be overemphasized (2). Using contraceptives can aid to lessen undesirable pregnancies and unsafe abortions.

Globally more than 41% of the 208 million pregnancies that occur each year are unplanned and more than half of these pregnancies end in abortion (3). Once female students have unplanned and unwanted pregnancies there is a possibility of performing abortions and among them, some might perform unsafe abortions which put their health at risk (4). Among the several methods of contraception, emergency contraceptives are the merely method of hormonal contraceptives that offer females with a last coincidental to avert undesirable pregnancy following unprotected sex. ECPs can be used once a condom breakdowns; once oral contraceptive pills have been missed or when a female is raped or forced into having sex. Factors

such as better information about emergency contraceptives, the approach of emergency contraceptive service providers, and positive attitudes are the determined factors for the use of ECPs (5).

Regardless of the existence of ECP techniques globally, the burden of undesirable pregnancy, which leads to unsafe abortion, still exists and it is common among University female students. A study conducted in Ethiopia found a high prevalence of unwanted pregnancies and half of these undesirable pregnancies ended in abortion of all scholars assessed only a few of them admitted to having ever used emergency contraceptives (6). Several females who get undesirable pregnancies do perform unsafe abortions, which are defined by the WHO as a "practice for dismissing unwanted pregnancy either by individuals lacking the required skills or in a setting lacking the least health standards, or both". Unsafe abortion has ill effects on women’s health and is connected with high morbidity and mortality (7).

Poor awareness and understanding of emergency contraception uptake among higher learning scholars lead to unplanned pregnancies which threatens maternal health because exposes them to the risk of performing unsafe abortions. Knowledge is considered an important factor for the use of emergency contraceptive pills which in turn can avert unwanted and planned pregnancies which can proceed to unsafe abortion (8). A study done at Wachamo University in Ethiopia on emergency contraception uses and sexual experience shows majority of university students are not aware of emergency contraception uses despite having more sexual experience, this indicates higher learning female scholars are at risk of unwanted pregnancy which would result in the unsafe abortion (9).

Factors such as knowledge, previous history of emergency contraceptive use, age, and marital status established to be important factors for emergency contraceptive use (10). Generally, modern contraceptive usage among females of reproductive age in Tanzania has gradually increased from 23.0% in 2004 to 34.3% in 2016 although information regarding to emergency contraceptives is not well known (11) . Awareness, knowledge, and usage of emergency contraceptive pills among higher learning female scholars are not well documented in Tanzania. Therefore this

study was commenced to assess awareness, knowledge, and usage of emergency contraceptive pills among higher learning female scholars in Dodoma Tanzania.

II. METHODOLOGY

➤ Study Area

The study was conducted in Dodoma City, which is found in the central part of Tanzania at 4o-7o latitude and 35o-37o longitude. Dodoma is one of the regions with a high number of higher learning institutions it has some Universities and colleges. The health use of contraceptive methods in Dodoma region are as follows; any method 49.2%, any modern method 41.2%, female sterilization 1.4%, male sterilization 0.0%, pills 10.5%, IUCD 0%, injectable 17.4%, implants 2.4%, male condom 1.5%, LAM 1.7%, any traditional method 8.0%, rhythm 4.0%, withdrawn method 3.2%, another method 0.9% and not currently using 50.8% (12).

➤ Study Design and Participants

This study was a descriptive cross-sectional study that employed a quantitative approach to study higher learning female scholars in the selected institution (*N* =909) in Dodoma Municipal was reflected as a basis population and the required sample size was drawn from this population. Non-medical undergraduate and diploma female students of reproductive age between 18 to 35 years old were included excluding those who were sick and those who were not willing to participate in the study.

➤ Sample Size Determination and Sampling Techniques

The 909 respondents participated from three learning institutions which are the University of Dodoma, the University of St. John, and the College of Business Education. This sample size is going to be determined using the following formula. $N = Z^2 \cdot P \cdot q / E^2$ (13)

Where; *N*=Minimal sample size.

Z=standard normal deviation set at 1.96 (corresponding to confidence level of 95%) *N*=...?

e=Marginal error is 5%

P=because the study variable are multiple i.e. Knowledge and use *P* is taken to be 27% (14)

$N = 1.96^2 \cdot 27 \cdot (100 - 27) / 5^2 = 302.9$

Table 1: Learning institution sampling

S/N	Name of institution	Total number of students	Total number of students
1	UDOM (college of informatics and virtue education)	6,050	303
2	CBE	6,020	303
3	St. John	5,950	303
	Total		909

The minimum sample size was 303 but a total of 909 participants were involved in the study, whereby 303 participants were studied from each learning institution.

Multi-stage sampling techniques were used to guide the selection procedure (N=909). The 3 learning institutions were selected using simple random techniques out of 7 learning institutions. The selected institutions were the College of Informatics and Virtue Education from the University of Dodoma, St. John University, and the College of Business Education (CBE). Since all the studied colleges had almost similar numbers of students from each institution/college the 303 participants were selected from each institution by using simple random sampling techniques. A proportional allocation formula was used to determine the number of scholars to be studied from every institution.

➤ *Data Collection Methods and Tools*

Data was collected using an English version of a structured self-administered questionnaire to obtain the information from the participants. The three qualified researcher assistants who received train for two days before

data collection were recruited. The pre-testing was done in one of the colleges which were not included in the study.

➤ *Data Processing and Analysis*

Data were entered, cleaned, and analyzed by using SPSS version 20.0. At a CI of 95%, descriptive statistics were performed whereby the frequencies, percentages diagrams, and p-values presented.

III. RESULTS

➤ *Demographic Characteristics*

Regarding the demographic characteristics of the study participants, the majority and minority were aged between 18-24 and ≥ 30 and they were 542 (59.8%) and 85 (9.4%) respectively. Most of the participants were from urban 528 (58.3%) and the majority were pursuing bachelor's degrees 674 (74.4%). The majority were single 705 (77.8%) while the minority were (divorced, cohabiting, and widows) 11 (1.2%). Most of the participants had sexual relationships 844 (93.2%) but the majority of them have never become pregnant 656 (72.4%). Refers to table 2

Table 2: Social demographic Characteristics (N=906)

Variable	Frequency	Percentage (%)
Age group		
18-24	542	59.8
25-29	279	30.8
≥ 30	85	9.4
Resident		
Rural	370	41.7
Urban	528	58.3
Education level		
Diploma	232	25.6
Bachelor	674	74.4
Setting		
UDOM	300	33.1
St. John	303	33.4
CBE	303	33.4
Marital status		
Single	716	79
Married	190	21
Others	11	1.2
Having Sexual relationship		
Yes	844	93.2
No	62	6.8
Ever becoming Pregnant		
Yes	250	27.6
No	656	72.4

➤ *Knowledge on Emergency Contraceptive Pills*

Regarding the knowledge, Only 277 (30.6%) were knowledgeable on ECPs. Refer to figure 1.

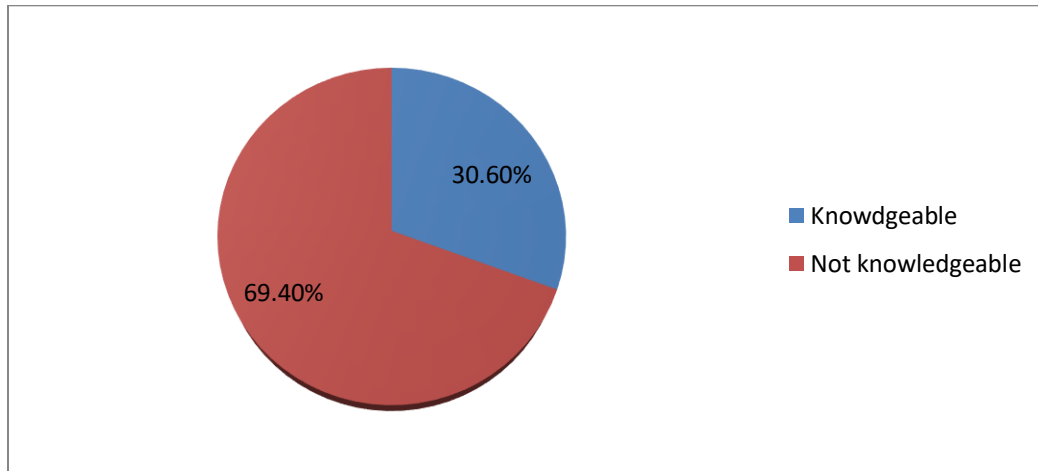


Fig 1: Knowledge on Emergency Contraceptive pills

➤ *Knowledge Domains Assessed on Emergency Contraceptive Pills*

Regarding the domains that were assessed on the level of knowledge, only a few respondents knew ECP functions, proper time for using ECPs, where ECPs are available, and ECPs' effectiveness. Refer to figure 2

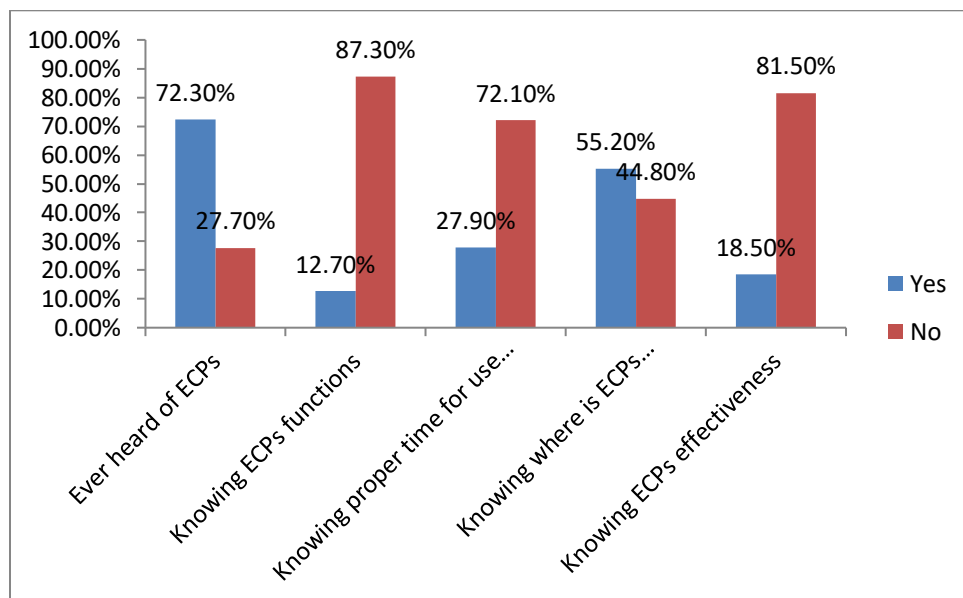


Fig 2: Knowledge Domains on ECPs

➤ *Usage of Emergency Contraceptive Pills*

The study found that only 177 (19.5%) had previously used Emergency Contraceptive pills. Refer to Figure 3.

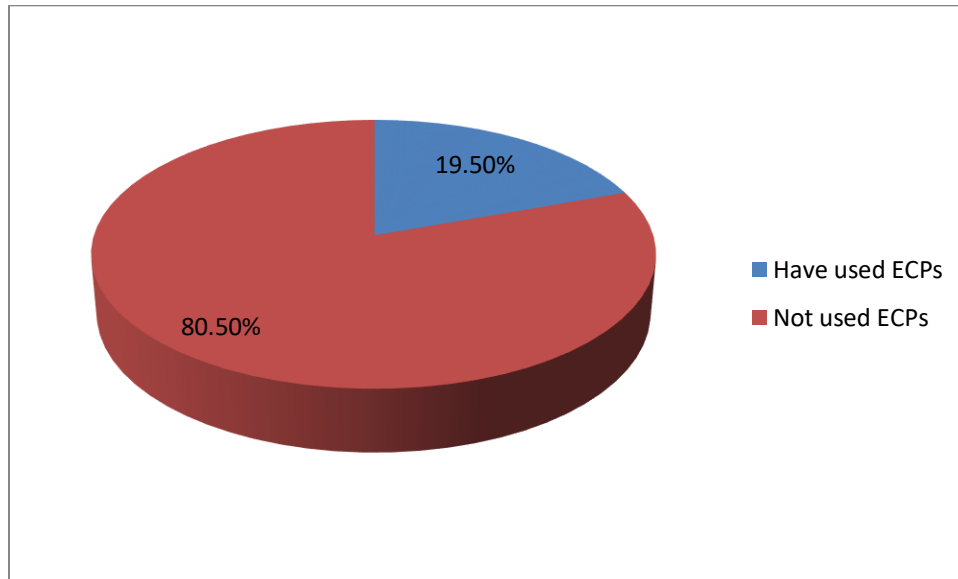


Fig 3: Ever Use of ECPs (N=906)

➤ *Chi-Square Test on Ever Use of ECPs*

At CI of 95% with $p < 0.05$ the use of ECPs had a statistical relationship with age, level of education, marital status, ever heard of ECPs, level of knowledge, and sexual relationship. The respondents aged between 25 and 29 mostly use ECPs compared to other age groups, most of the bachelor's degree students had used ECPs compared to diploma students, the majority of married students had use ECPs compared to single students, most of the students who heard of ECPs had use ECPs more compared to those who never heard of ECPs while most of the knowledgeable students had use ECPs more compared to those who were not knowledgeable hence most of the students who were in sexual relationship had use ECPs more compared to those who had no sexual relationship. Refer to Table 3.

Table 3: Chi-square test on Ever use of ECPs (N=906)

Variable	Ever Use of ECPs		X ²	P-value
	Utilized	Not utilized		
Age group				
18-24	87(16.1%)	455(83.9%)	11.310 ^a	<0.01
25-29	72(25.8%)	207(74.2%)		
≥30	18(21.2%)	67(78.8%)		
Residence				
Rural	72(19%)	306(81%)	0.99 ^a	0.754
Urban	105(19.9%)	423(80.1%)		
Level of education				
Diploma	29(12.5%)	203(87.5%)	9.822 ^a	<0.01
Bachelor	148(22%)	526(78%)		
Marital status				
Single	109(15.5%)	596(84.5%)	36.868 ^a	<0.01
Married	65(34.2%)	125(65.8%)		
Others	3(27%)	8(73%)		
Ever heard of ECPs				
Yes	176(26.9%)	479(73.1%)	80.893 ^a	<0.01
No	1(0.4%)	250(99.6)		
Level of knowledge				
Knowledgeable	93(33.6%)	184(66.4%)	50.015 ^a	<0.01
Not knowledgeable	84(13.4%)	545(86.6%)		
Ever having sexual relationship				
Yes	175(20.7%)	669(79.3%)	11.264 ^a	<0.01
No	2(3.2%)	60(96.8%)		

IV. DISCUSSION

The current study found a relatively higher level of awareness of ECPs among higher learning female scholars. In contrast, a study conducted in Kwazulu South Africa among female College students regarding knowledge, practice, and attitudes toward ECPs found a low level of awareness among female college students on ECPs (15). Also, a study conducted in India on knowledge and attitudes toward the usage of emergency contraceptives among higher learning students found a low level of awareness and a moderate level of knowledge on emergency contraception (16). The study differs from the current study because it was done to both sex college students while the current study focuses only on college female students.

The current study found an inadequate level of knowledge of the ECPs among higher learning female scholars. A similar study conducted in Ethiopia among female college students on knowledge, attitudes, and practice found low-level knowledge regarding the ECPs (6). Similarities between the two studies exist since the study was conducted with the same population and countries which share some characteristics.

The existing study found a little usage of the ECPs among higher learning female scholars, this corresponds to the one done in Ethiopia among higher learning scholars found an inadequate usage of the ECPs (17). The similarities between the two studies might be because both were conducted on similar groups and again both are developing countries which share some common characteristics.

The present study found the use of ECPs was statistically significant with age, level of education, marital status, ever heard of ECPs, level of knowledge, and sexual relationship. This corresponds to the study conducted in Ethiopia on awareness and practice of emergency contraceptives among female graduates found that being beyond twenty years old, parents' knowledge determined the level of knowledge on emergency contraceptive pills hence those with knowledge had high chance to use the emergency contraception (18). Also, another study found that faith, awareness, and previous use of ECPs were linked with the use of ECPs amongst females looking for induced abortion in healthcare facilities (19). The three studies show that there is a relationship between the level of knowledge and the usage of emergency contraception.

Like a study conducted on emergency contraceptive usage among higher learning scholars found that stage at first sexual contact, knowledge about ECPs, experience of prior pregnancy, and prior usage of contraceptives had an association with the use of emergency contraception (20)

The current study found that the majority of the participants did not know; the functions, proper time for use, effectiveness, and availability of ECPs. Similarly, a study

conducted in Ethiopia on emergency contraceptive use and connected reasons among higher learning scholars found only a few respondents knew the correct time for using emergency contraception (20). In contrast, the study conducted in South Africa on knowledge of emergency contraceptives among secondary school students in rural areas found that almost half of the respondents perceived emergency contraceptives to be effective (21). A study conducted in the United States on knowledge and usage of emergency contraceptives among college women found that the majority of respondents know where the ECPs available are and the effectiveness of ECPs (22).

V. CONCLUSION AND RECOMMENDATION.

Generally, the study showed that the level of knowledge and usage of emergency contraceptive pills among higher-learning female scholars' in Dodoma Tanzania was low. Among those who were knowledgeable they had used ECPs more compared to those who were not knowledgeable. The use of ECPs was statistically significant with age, level of education, marital status, ever heard of ECPs, level of knowledge, and sexual relationship. Most of the respondents did not know the functions, proper time for use, effectiveness, and availability of ECPs. The generated information will impact the planning and development of strategies which will be intervened to raise the awareness and level of knowledge of higher learning female scholars which will ultimately increase the utilization of ECP. There is a need to provide education on emergency contraceptive pills and emphasize its Availability and proper time for use to prevent unwanted pregnancy after unprotected sex.

VI. STRENGTH AND LIMITATION OF THE STUDY

➤ *Strength of the Study*

The study interviewed higher learning female scholars using a self-administered questionnaire which came up with results on awareness, knowledge, and usage of ECPs which recommends ministries, higher learning institution administrators, health administrators, and other stakeholders.

➤ *Limitations of the Study*

The study's descriptive cross-sectional study design and quantitative methodology precluded a qualitative examination of higher learning female scholars.

➤ *Ethical Issues and Consent to Participate*

Permission to conduct the study was received from the University of St. John, the College of Business and Education, the College of Health Sciences, and the University of Dodoma Research Committee. The research was approved ethically. Each of these organizations gave written consent, specifically stating that participating students would have the right to decline involvement without fear of repercussions.

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➤ *Funding Statement*

This study had no particular funding from any public agency, profitable or nonprofit sector.

➤ *Competing Interest,*

There is no conflict of interest in this research among the Writers.

➤ *Authors' Contribution*

ARM and **AML** prepared significant contributions towards the study proposal, involved in data collection and data analysis, report writing, and drafted the Manuscript. **JDTL** and **EAM** facilitated with the data interpretation and text revision. The final manuscript was read, discussed, and approved by all writers.

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