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Erastus Chepkwony, Department of Environmental Health and Disease Control, Jomo Kenyatta University of Agriculture and Technology, P.O. Box 4413-30100, Eldoret, Kenya, Betsy Rono-Cheriro, Department of Environmental Health and Disease Control, Jomo Kenyatta University of Agriculture and Technology, P.O. Box 62000-00200 City Square, Nairobi, Kenya, Kenneth Ngure,
Department of Community Health and Disease control, Jomo Kenyatta University of Agriculture and Technology, P.O. Box 62000-00200, City Square Nairobi Kenya.

Corresponding author: Erastus Chepkwony, P. O. Box 4413-30100 Eldoret Kenya, Tel no: +254717470036. Email: erastus.chepkwony2019@gmail.com

FACTORS INFLUENCING CONTRACEPTIVE UTILIZATION AMONG FEMALE STUDENTS IN ELDORET NATIONAL POLYTECHNIC IN UASIN GISHU COUNTY KENYA

E. Chepkwony, B. Cheriro and K. Ngure

ABSTRACT

Background: **Young women in institutions of higher learning may be away from home the very first time. Peer pressure and less parental control may lead them to experiment sexually. Contraceptive non-use is likely to result in unwanted pregnancies and sexually transmitted diseases with dire consequences. Contraceptives are effective in preventing unwanted pregnancies and some sexually transmitted diseases.**
Objective: **The main objective of the study was to assess socio-demographic factors influencing utilization of contraceptives among female students of Eldoret National Polytechnic, Eldoret (ENP) in Kenya.**
Methods: **The study design was a cross-sectional one in form of self-administered closed ended and open-ended questionnaires. Study population was only female students of ENP, aged between 18 and 35 years. Stratified random sampling was applied to the selected sample of 326 from the study population of 2171. Stratification was females per their year of study. Simple random sampling was then applied to each stratum (females per year of study). Three consecutive days in a week were selected to administer questionnaires each day for each year of study.**
Results: **Respondents who were single reported using more contraceptives (86.4%) than those married or cohabiting at 8.1% and 8.5% respectively. A majority of Protestant respondents (67.2%) reported using contraceptives as opposed to Catholic and Muslim respondents at 30.3% and 2.5% respectively. Second year respondents reported using contraceptives more (48.0%) than first year and third year respondents at 27.8% and 24.2% respectably. Respondents who do not have any children are using more contraceptives (86.9%) than those who have at least one child at 13.1%.**

Conclusion: **Socio-demographic factors influencing utilization of modern contraceptive services included peer influence, religion, previous sexual practices, health provider attitude, awareness and availability. Other factors include age, marital status, number of children, year of study, place of residence and level of sexual activity.**
Recommendation: **The study recommended an enhanced multispectral approach to sex education in tertiary institution and even secondary schools to ensure correct and timely dissemination of information on sexuality and contraceptives use.**

INTRODUCTION

In many poor countries such as Kenya, young women who are sexually active have an unmet need for contraception, meaning they wish to postpone pregnancy but are not using any contraceptive method. They cite one of several key reasons for that and so addressing their reasons for nonuse should inform family planning programs and policy efforts to correct it (1).

The contraceptive non utilization by young women who need them is likely to impact their lives adversely. Mistimed and Unintended pregnancy is such and its possible negative implications including unsafe abortion, morbidity and mortality. Past studies had identified several reasons for the non-use of contraceptives by married women while little has been done on young women in colleges, most of who are single (2).

A study to find out the extent of unintended pregnancies in sub Saharan Africa (SSA) and the potential role of contraceptives found that women aged 20–24 years have one of the highest proportion of unintended pregnancies, compared to those aged 15–19 years (3). Based on data from 2010–2014 there are approximately 25 million unsafe abortions annually. Of these one third or approximately 8 million were performed under the least safe conditions by untrained persons using dangerous and invasive methods. Unsafe abortions lead to an estimated 7 million complications (4).

In developed regions, it is estimated that 30 women die for every 100 000 unsafe abortions. The number rises to 220 deaths per 100 000 unsafe abortions in developing regions and 520 deaths per 100 000 unsafe abortions in sub-Saharan Africa. Mortality from unsafe abortion disproportionately affects women in Africa. While the continent accounts for 29% of all unsafe abortions, it sees 62% of unsafe abortion-related deaths (5).

Maternal mortality is unacceptably high at about 342 in Kenya and 295 000 women died worldwide during and following pregnancy and childbirth in 2017, vast majority of these deaths (94%) occurred in low-resource settings, and most could have been prevented (6). The majority of unwanted pregnancies and unsafe pregnancy terminations occur in the developing countries with the most severe morbidity and mortality occurring in sub-Saharan Africa (7).

It should be noted that, besides the associated stigma, unintended pregnancy may have other consequences for the woman and her family of which the general population is often unaware. Such consequences may include negative health outcomes for the woman (morbidity and mortality) and the child (for example, impact on prenatal care and breastfeeding) as well as social costs (8). Recent studies of the sociocultural context of abortion in Kenya

have documented a high prevalence of unintended pregnancies- with up to one in four parous women reporting their most recent pregnancy as unintended. Higher proportions of unwanted pregnancies are more common among single women, and those with higher parity in slum settlements (9).

Reducing unmet need for family planning has been a central aim for reproductive health policy, programs and research for decades. Unmet need for family planning refers to a discrepancy between expressed fertility preferences and practice of contraception i.e., the failure to translate a stated desire to avoid pregnancy into pregnancy-prevention behaviour (10). Sexually active women in developing countries who have an unmet need for contraception, meaning they wish to avoid pregnancy but are not using any contraceptive (traditional or modern), generally cite one of several key reasons for not using a method. Addressing their reasons for nonuse should inform family planning programs' efforts to satisfy this need (11).

Universal contraceptive access has been shown to contribute crucial role in the achievement of SDGs through its positive effects on individuals, families, communities and nations (12). Considering the current situation of low contraceptive use in colleges, this study aimed to address this gap. In addition to evaluating the socio-demographic factors for low levels of contraceptive use by sexually active young women in tertiary institutions, subgroup analyses of the reasons for nonuse were performed. This was in order investigate possible socio-demographic barriers in order to inform strategic priorities to improve women's sexual and reproductive health.

The results of this study will enable healthcare providers and policy makers to develop efficient strategies of boosting contraceptive use and decrease unintended pregnancy rates. Public health researchers play a crucial role by continuously finding out reasons for low contraceptive use and how to overcome those barriers by providing women with contraceptive education that will assist these young women in arriving at informed decisions about utilization of contraception and subsequently lead to reduction in mortality and morbidity as currently witnessed.

METHODS

Study Design: This was an institution based cross-sectional study done on 15th to 17th May 2019 using self-administered questionnaires on female students. The advantages of cross-sectional study include: Used to prove and/or disprove assumptions, not costly to perform and does not require a lot of time. It also captures a specific point in time, contains multiple variables at the time of the data snapshot, many findings and outcomes can be analyzed to create new theories/studies or in-depth research.

Study Site: This study was carried out at ENP in Eldoret town Uasin Gishu County in former Rift Valley province of Kenya. It is a tertiary institution offering vocational and technical courses at certificate, diploma and higher diploma levels. During the time of the study, ENP had a female population of 2171 distributed in first, second and third year of studies. Most of these students are aged 18-25 years. Kenya is a country located in East Africa bordering Ethiopia to the north, South Sudan to the North West, Uganda to the West, Tanzania to South West, Somalia to the East and Indian Ocean to South East.

According 2019 population census, Kenya's population is estimated at 47.6 million people

within an area of 580,376 square kilometres. The Contraceptive prevalence Rate (CPR) of women ages 15-49 in Kenya was reported at 60.55 % in 2017, according to the World Bank collection of development indicators, compiled from officially recognized sources (6).

Data collection: Data collection was done between 15th and 17th May 2019. This was done using a pretested self-administered questionnaire which was developed by the researcher with assistance of supervisors. The questionnaire was in English since it is the medium of learning in Kenyan tertiary institutions. The questionnaire was used to seek information on the socio-demographic characteristics of the respondents, contraceptive utilization, their knowledge of contraceptive methods and sociodemographic factors affecting contraceptive utilization.

Data Analysis: Data was SPSS version 16.0 for windows for statistical analysis. The results were then presented in descriptive statistics using frequency tables, bar charts, graphs and percentages as shown in the result section.

Ethical considerations:

This proposal was subjected to University of Kabianga Institutional Ethical Review Committee (IERC) for approval before roll out is done and obtained approval number IERC AN 0010 in April 2019. All study participants signed an informed consent before participating in this study. Permission to conduct the study was sought and obtained on March 15, 2019 from Eldoret National Polytechnic authorities. Privacy and confidentiality was strictly maintained. Anonymity was kept as individual identities were hidden. Names of participants were not used on data collection tool or any other place. Data was kept in locked cabinets.

RESULTS

Table 1

Association between Demographic Characteristics and Utilization of Contraceptives in ENP

Variables	Levels	Utilization of contraceptives		χ^2	Df	Sig.
		Yes = 198 n (%)	No = 128 n (%)			
Age (Years)	17 – 19	17 (8.6)	20 (15.6)	21.833	3	0.001*
	20 – 22	136 (68.7)	83 (64.8)			
	23 – 25	45 (22.7)	16 (12.5)			
	> 25	0 (0.0)	9 (7.0)			
Marital status	Married	16 (8.1)	19 (14.8)	10.436	2	0.005*
	Single	171 (86.4)	109 (85.2)			
	Cohabiting	11 (8.5)	0 (0.0)			
Number of children	None	172 (86.9)	104 (81.3)	7.258	2	0.027*
	One	24 (12.1)	16 (12.5)			
	Two	2 (1.0)	8 (6.2)			
Religion	Catholic	60 (30.3)	43 (33.6)	3.506	2	0.173
	Protestant	133 (67.2)	85 (66.4)			
	Muslim	5 (2.5)	0 (0.0)			

Year of study	First	55 (27.8)	74 (57.8)	38.29	2	0.001*
	Second	95 (48.0)	22 (17.2)			
	Third	48 (24.2)	32 (25.0)			

Majority of respondents who use contraceptives (68.7%) lay at 20-22 years age bracket while 22.7% were at 23-25 year age bracket. A tiny minority (7.0%) was above 25 years old. Respondents who were single reported using more contraceptives (86.4%) than those married or cohabiting at 8.1% and 8.5% respectively. A majority of Protestant respondents (67.2%) reported using contraceptives as opposed to Catholic and Muslim respondents at 30.3% and 2.5% respectively. Second year respondents reported using contraceptives more (48.0%) than first year and third year respondents at 27.8% and 24.2% respectably. Respondents who do not have any children are using more contraceptives (86.9%) than those who have at least one child at 13.1%.

Table 2:

Regression findings between attitude and utilization of contraceptives in ENP

Variable	**β**	**Wald's statistics**	**df**	**P-value**	**OR**
Have adverse effects					
Yes	.719	5.296	1	.021	2.053
No	Reference category				
Cause future barrenness					
Yes	.073	.043	1	.836	1.075
No	Reference category				
Reduces sexual enjoyment					
Yes	-.197	.549	1	.459	.822
No	Reference category				
Makes women promiscuous					
Yes	-1.138	16.815	1	.000	.320
No	Reference category				
Interferes with normal body functions					
Yes	-.638	4.995	1	.025	.528
No	Reference category				
Inconvenient to use					
Yes	.413	2.326	1	.127	1.511
No	Reference category				
Constant	-.245	.551	1	.458	.783

The table above shows the regression analysis between attitude and overall utilization of contraceptives. The study findings depicted showed that adverse effects had, makes women promiscuous and interferes with normal body functions turned out to be statistically significant with utilization of contraceptives. The adverse effects had the odds ratio of 2.053 (p = 0.021) which implies that if all the variables are held constant in the model then the odds of students utilizing contraceptives despite their adverse effects is

2.053 times more likely than those who were not utilizing contraceptives due to their adverse effects. The thought of contraceptives making women promiscuous had an odds ratio of 0.32 (p = 0.000) which implies that if all variables are held constant then the odds of students utilizing contraceptives despite the thought of making women promiscuous would be 0.32 less likely than those not utilizing contraceptives. Finally, the thought of contraceptives interferes with the normal body functions had an odds ratio of 0.025 (p = 0.025) which means that if all variables are held constant then the odds of students utilizing contraceptives despite the thought of it interferes with normal body functions was 0.025 less likely than those not utilizing contraceptives. Also, for every unit increase in the thought of contraceptives interfering with normal body functions would lead to a unit decrease in utilization of contraceptives. Therefore, the results depicted that adverse effects had a negative effect on utilization of contraceptive use while the thought of making women promiscuous and interferes with normal body functions also had a negative influence on utilization of contraceptives.

DISCUSSION

All participants in this cross-sectional study were female students, majority being mean age of 21, not married, Protestants, with no children, residing off campus and living alone or with a friend. Female students were deliberately chosen in this study because they carry biggest burden of mortality and morbidity and even school dropouts in cases of unwanted pregnancies. In this study, we found that socio-demographic factors such as age, place of residence, peer pressure, marital status, year of study and parity had big impact on contraceptive utilization. This is consistent with other similar studies carries out in South Sudan and another one in Malawi (13, 14).

We found out that majority of respondents who live off campus reported using contraceptives more than their counterparts living on campus hostels. This may be due to the fact that living off campus gives more freedom to have sexual partner and actually engage in sexual activity than living within campus hostels. About half of those living with a colleague were found to be using contraceptives unlike those living alone while those living with guardian or parents reported using fewer contraceptives by ratio of about 1:8. Living with a colleague is likely to put some peer pressure to engage in sexual activity than living alone. On the other hand, living with parents or guardians could be restrictive to sexual activity or contraceptive utilization. A similar study identified socio-demographic factors affecting contraceptive utilization to include age, peer pressure, alcohol/drug use and ease of accessibility of those contraceptives. We also found that married women are less likely to use contraceptives than single women. This may be due to the fact that married women are likely to have desire for more children unlike single women (15).

This study found that two-thirds of respondents report that contraceptives inflicted adverse health effects and all but about a fifth believed that contraceptives cause future barrenness. This study also found that two-thirds of respondents believed that contraceptives do not hinder sexual enjoyment while more than half of them did not think contraceptives makes women promiscuous. This is similar to one study which found that contraception was associated with promiscuous behaviour while

fear of side effects and adverse reactions were a major barrier to use. Many of those fears were based on myths and misconceptions (16, 17).

We also found that respondents with a sexual partner reported using more contraceptives than the ones without a sexual partner while over two thirds of respondents reported not using contraceptives on their first sexual encounter compare to slightly over a third who reported using contraceptives on their first sexual encounter. Among those who had engaged in sexual intercourse, two thirds (n=131) of them did not use any method of contraception. A significantly higher proportion of respondents who did not use contraception were in the younger age group of 19–20 years old. This agrees with a study among college students in African countries that found being sexual activity, religion and lack of knowledge as having a significant effect on contraceptive use (18).

We also found out in this study that for every unit increase in the thought of contraceptives interfering with normal body functions would lead to a unit decrease in utilization of contraceptives. Therefore, the results depicted that adverse effects had a negative effect on utilization of contraceptive use while the thought of making women promiscuous and interferes with normal body functions also had a negative influence on utilization of contraceptives. This was in contrast to a similar study carried out in West Africa and another one in US (19, 20).

CONCLUSION

Socio-demographic factors influencing utilization of modern contraceptive services included age, peer influence, religion, previous sexual practices, health provider attitude, awareness and availability. Other factors include age, marital status, number of children, year of study, place of residence, level of sexual activity and partner approval.

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