



# International Journal of Midwifery and Nursing Practice

E-ISSN: 2663-0435  
P-ISSN: 2663-0427  
IJMNP 2019; 2(1): 79-83  
Received: 09-11-2018  
Accepted: 13-12-2018

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## Factors affecting accessibility and use of female condom among youths in selected tertiary training institutes in migori county, Kenya

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### Abstract

The female condom is a dual protection tool for both prevention of HIV/ Aids transmission and unwanted or unplanned pregnancies. The study was done in Migori County among the youths attending selected tertiary training institutes, with specific objectives of identifying the extent in which access to the female condom and other social cultural factors affecting use of the device in Migori County. A cross-sectional descriptive study was used to collect both quantitative and qualitative data. A pre-test study was conducted in Msomi teachers training college to test the validity and reliability of the data collecting tools. The tertiary institutions were purposively selected while the research participants in the selected institutes were randomly and systematically selected and a sample size of  $n= 385$  was chosen proportionately. Data was collected using structured questionnaires, in-depth interviews and focus group discussions.

It was evident from the research findings that majority of the youths 83.9% were single with 61.3% of the youths getting information about female condom use from media, 73.9% used it to prevent pregnancy than to prevent transmission or contracting HIV/Aids. Availability and cost of the female condom was significant at  $p \leq 0.001$ , attitude of the user and partner was also significant at  $p$  value of 0.024.

**Keywords:** female condom, youths in Kenya, utilization of female condom

### Introduction

#### Background to the study

Condoms are barrier contraceptive devices for dual protection available in two types, the male and the female condoms World Health Organization, (WHO, 2016) <sup>[14]</sup>. When condoms are used correctly and consistently they are most effective in prevention of unwanted pregnancy and prevention of spread of sexually transmitted infections including HIV/ AIDs. The female condom prevents conception of unwanted or unplanned pregnancy in similar proportion to that of male condom that is 95 per cent. The female condom is a female empowerment tool to increase use of condoms for family planning and prevention of HIV/ Aids, compared to male condom; a female partner has more control to negotiate for the female condom than a male partner. (WHO, 2016) <sup>[14]</sup>.

In a research done in the United States on availability of messages related to female condom use, it was found out that majority of the websites had little details in promotion of female condom use. This posed a barrier in use of the female condom. Those websites which had the message on female condom were not detailed but just mentioned the female condom as a barrier contraceptive method for family planning.

Women from low income urban U.S, reported that when the female condom was introduced for the first time many women tried to use it increasing the incidence of using the female condom. However, there wasn't sustainable or continued use of the female condom after the first use due to unavailability of the condom and challenges faced during the first trial. It was reported that female condom were available during the time of campaigns and promotion of the female condom but were not available in the nearby shops for continued use (Kayombo & Mtayangulwa, 2016) <sup>[5]</sup>.

In Sub-Saharan Africa, women accept and are ready to use the female condom when they are given access to the device and exposed to interventions which support the use of the female condom. This was found out after analyzing various researches on acceptability of female condom in Sub-Saharan Africa (Ananga, Kugbey, Misomu, & Asante, 2017) <sup>[1]</sup>.

In another study in Zimbabwe, and China it was revealed that unavailability of the female condoms in the shops and other sales outlets led to low utilization of the female condom. The respondents reported that whenever they sought the female condom they never accessed them (Chipfuwa, *et al.*, 2014; Liu, Cheng, & Wang, 2016) [3].

Low utilization of female condom was related to low level of awareness among the youths, acceptance and availability in shops and chemists determined use of female condom in Ghana. The youths who readily sought and found the female condom used it while those who didn't find the female condom in the nearest shops and chemists reported not to have used the female condom (Ananga, Kugbey, Misomu, & Asante, 2017) [1].

On accessibility, the distance to the nearest shop and availability of the female condom can promote use of the female condom or deter one from having safe sex. Male condom dispensers are located strategically near point of use to reduce the distance to pick them; however when one travels long distance to access female condom and in case of unavailability of the female condom this reduces chances of using the female condom (Ntombizodwa, Mabaso, Chauke, Sigida, Naidoo, & Sifunda, 2018) [12].

**Methodology**

A cross-sectional descriptive study design was used to generate both quantitative and qualitative data through self-administered questionnaires, focus group discussions and in-depth interviews respectively. This design enabled the researcher to collect data assessing both the use of the female condom before and after at a short specific period of time.

The study population in this study was youths between 18 and 35 years of age in selected tertiary training institutions in Migori County. Youths in tertiary colleges come from diverse backgrounds and regions, are accessible and most of them have the knowledge about HIV/ AIDs and its prevention mechanisms.

The study employed two sampling techniques: Purposeful sampling of the tertiary institutes in Migori County and proportionate random sampling of research participants. Purposive sampling was used to identify the target study population (the youths) on the basis of specific considerations by the researcher such as, the health of the youths is of paramount importance to the building our nation since they represent majority work force and professionals.

Reliability of the instrument was estimated using the split half method. Odd-even split method was used to obtain the two halves. The following Spearman Brown prophecy formula is used to calculate the reliability coefficient. The Cronbach's alpha was calculated and was found to be at ( $\alpha = 0.817$ ) which showed a high degree of reliability of the variables.

**Data collection and analysis**

The questionnaire comprised of sections that looked into the demographic characteristics of the youths, accessibility of the female condom by the youths, the cost of the female condom, and socio-cultural barriers to use of the female condoms. Qualitative data was collected from the youths using open ended questions, focused group discussions and in depth interviews with the health care workers at the tertiary institute health clinics. The study was done in two

phases; phase one involved data collection using self-administered questionnaires administered to youths (18 - 35 years of age) and the second phase involved conducting two Focus Group Discussions (FGDs) and in-depth interviews with women of 18 - 35 years of age in each of the selected institution.

The data collected was then grouped into categories, tested for homogeneity and normality of distribution, Chi Square was used to check for the significant associations between the variables at 95 percent confidence interval, a p value of  $p < 0.05$  was used. The qualitative information collected was coded into the respective categories illustrating the various themes, then was entered into computer for thematic analysis using N-Vivo version 11. Quantitative data was analyzed using Statistical Package for Social Sciences (SPSS version 23). Bivariate analysis was used to measure the strength of associations while the multivariate analysis was used to adjust the confounders. Descriptive statistics specifically tables and bar graphs were used to present the findings.

**Results**

The ages of the respondents were ranging from 18 to 35 complete years. More than half of the participants (86.6%) were aged between 18 and 25 years of age, while the remaining (13.4%) were aged between 25 and 35 years. Most of the youths were aware of the topic under study; however increase in age was associated with minimal or low level of awareness of the female condom.

Expectedly majority of the respondents were youths who were single (83.9%), while the remaining were married and others separated or cohabiting, (10.8%) and (5.3%) respectively. Most of the respondents were Christians by denomination 95.3% while the remaining participants (4.7%) belonged to Muslim denomination. On source of income, most of the respondents reported to receive their main financial support from their parents/ guardians, from relatives and their partners 80.5%, 13.4% and 6.1% respectively. Table 1 shows a summary of demographic characteristics of the youths under study.

**Table 1:** Demographic characteristics of the youths under study

Variable		Frequency	Percentage
Age	18-25	329	86.6
	25-35	51	13.4
Marital status	Married	41	10.8
	Others	339	89.2
Denomination	Christian	362	95.3
	Muslim	18	4.7
Use of female condom	Yes	14	3.7
	No	366	96.3

**1. Awareness and use of the female condom**

Majority of the respondents reported that they were aware of the female condoms and that they can access them from the chemists/ pharmacies 50%, health facilities and shops/ super markets 38.2% and 11.8 respectively. The source of the female condom was not significant, the youths never minded where to access them from so long as they get the device for use when there is need to use the female condom ( $p=0.207$ ,  $\chi^2=1.591$ ,  $df=2$ ,  $OR=0.958$ ). However, the youths who were aware of the female condom use were more likely to use the device than the ones who not aware of it benefits and where to access it from. This was significantly

associated with use of the female condom ( $p=0.040$ ,  $\chi^2=4.21$ ,  $df=2$ ).

There were more posters for male condom use than for female condom use. With the availability of the posters and other information and communication materials for male condoms being easily available, more youths were conversant with ease use of the male condom than the female condom. Respondents were able to explain the correct procedure for male condom use than for female condom use. However, availability of the female condom posters was significantly associated with the use of the female condom ( $p=0.001$ ,  $\chi^2=9.7776$ ,  $df=2$ ,  $OR=2.752$ ).

In a research done on knowledge, acceptance and utilization of female condom it was found out that increased awareness of the female contributed to increased utilization of the female condom in Ghana (Ananga, Kugbey, Misomu, & Asante, 2017) [1]. In India, incorporation of counseling on female condom in provision of family planning services was found to increase utilization of the female condom (Bowling, *et al.*, 2018). However, in this study it was found out that the youths are aware of the female condom and its benefits but rarely use it due to others factors.

## 2. Availability and use of the female condom

Most respondents 98.2% reported that the female condom were not easily available in the college's reproductive health clinic while 1.3% said sometimes the stocks are there and the remaining 0.5% agreed that the stocks were available in specific points of sale. Availability of the female condom was significantly associated with use of the device at a  $p$  value

( $p\leq 0.001$ ,  $\chi^2=30.839$ ,  $df=2$ ,  $OR=50.382$ ).

Logistic regression was done on where to access the female condom from and availability of the female condom at that point, it was found out that most of the time the female condom was out of stock and this affected its use among the youths. The youths reported that it took time before replenishing the stocks and also the working hours for the reproductive health clinic were limited as they spent the opening hours of the clinic in class. However, there was no statistical significance between where to access the female condom from and availability of the condom ( $p=0.297$ ). In a study by Obembe *et al.*, accessibility of the female condom, however, the study didn't indicate significance of where to access the female condom from (Obembe, Adebowale, & Odebynmi, 2017) [13].

When the researcher probed more on female condom distribution, the respondents reported that mostly they are supplied with male condom dispensers latter than the female condom dispensers within their place of residence. Availability of the female condom dispensers in accessible points was significantly associated with use of the female condom

( $p=0.003$ ,  $\chi^2=8.573$ ,  $df=2$ ,  $OR=8.256$ ) in most of the places of residence the female condom dispensers were not there 93.3%, while the remaining portion of participants reported that though the dispensers were not there, they can access the reproductive health clinic which is proximal to their place of residence 6.1%. During an interview with the key informant, it was evident that the institutions had procured and had in place male condom dispensers within the place of residence. This promoted use of male condom compared to female condom, however even the male condom was not consistently used.

During focused group discussion, members reported that whenever they sought contraceptives in the reproductive health clinics, they are given other options and the female condom is rarely championed for as reported by one of the respondent that;

*Whenever I go for family planning services am given the option of injectable method, a jadelle or sure (a male condom), the nurse has never bothered to demonstrate to me how to use a female condom, may be they also don't know how to use them (respondent from Rongo University).*

On the place (position) where the point of distribution for female condoms was situated, majority of the respondents (67.6%) reported that the place was not accessible, while 15%, 17.4% reported that they were not sure and some can access the point of distribution respectively. It was found out that whenever there was need for the female condom use, most of the supermarkets and shops around the students' hostels had no stocks. In the reproductive health clinics, there was no specific place or point to pick the female condom from; the respondents reported that in case one needed to get one, she had to be physically given the condom by a health provider. This barred many youths since they need a place where they can walk in freely any time of the day and night to pick the female condom and use. Therefore the places where the female condoms were stored or distributed from weren't accessible at all times, especially at night when the youths would like to use the device. This was significantly associated with use of the female condom ( $p=0.040$ ,  $\chi^2=4.1887$ ,  $df=2$ ). Most youths during focus group discussion reported that the male condom was easily accessible at all times hence likely to be used more often than female condom.

During an in-depth interview with the nurse in charge of the reproductive health clinics in the selected institutions, it was evident that they too had no stocks for the female condom but enough stocks of the male condom. It was found out that whenever they sought the device, many shops, supermarkets and chemist never stocked the female condom. The place of residence had male condom dispensers and no female condom dispenser; this made use of the male condom preferred in comparison with the female condom.

Availability of female condoms within the place of residence was a determinant of female condom use, most youths reported that whenever they opted to use the device, little did they know where to get them from, this contributed to low utilization of the female condom among the youths. Acceptability and availability of the female condom were associated with low utilization of female condom in Tanzania (Kayombo & Mtayangulwa, 2016) [5]. These were replicated in the current study and also in china in a study by Ananga *et al.*, which reported that limited access to the female condom led to low utilization of the female condom (Ananga, Kugbey, Misomu, & Asante, 2017; Obembe *et al.*, 2017) [1].

The female condom dispensers and female condom posters and other information, education and communication materials about female condom significantly affected use of the female condom. Availability of male condom dispensers within the colleges and place of residence made a male condom a common good in the market; however lack of female condom dispensers in critical places like place of residence, hostels and social places within the tertiary

institutions made it difficult for the youths to access and use the female condom. When key informants from each tertiary institution were interviewed it was evident that most health care facilities do not stock the female condom and none of the institutions had a female condom dispenser, others even lacked the demonstration models for female condom insertion. These findings concur with those revealed by (Mugadza, *et al.*, 2016; Mantell, *et al.*, 2015) <sup>[10,7]</sup>.

**3. Cost and use of the female condom**

The cost of the female condom was considered relatively expensive compared to a male condom, 37.9% of the youths were not sure if the female condom was affordable or not while 35% disagreed, 6.8% strongly disagreed, 20% agreed and 0.3% strongly agreed that the device was affordable ( $p \leq 0.001$ ,  $\chi^2 = 25.349$ ,  $OR = 15.497$ ,  $SD = 0.871$ ), this meant that the female condom was 15.4 times more likely to be used if it was made affordable. However, during focused group discussion it was evident that even for those who can afford weren't able to use the device due to unavailability of the stock. In the selected tertiary institutions, the device was not stocked frequently due procurement issues surrounding the cost of the female condom.

During sessions of group discussion, it came out clearly that those who had used the female condom previously they had gotten it from health workers during campaigns for HIV/Aids prevention where they were taught on how to use and were given some for use. Later after using the few devices given, they haven't used the device again because they scarcely know where to get the female condom from and cost implications.

*When I went to buy a female condom from the supermarket, imagine one packet goes for two hundred Kenyan shilins while that of a male condom was sold at fifty Kenyan shillings. And it is used only once. The packet had only one condom while a packet of male condom had three. My partner opted for the male condom (respondent from Migori KMTC).*

The researcher probed the respondents to establish if the female condom was available and affordable will that increase the utilization, majority of the respondents 77.6% were willing to use the device while 16.8% said they won't use and 5.6% proportion of the respondents was not sure since other factors will determine the use or disuse of the device. The attitude of the user was discussed during focus group discussion to determine the level of utilization of the female condom if it was available and affordable ( $p = 0.019$ ,  $\chi^2 = 5.4812$ ,  $df = 2$ ,  $OR = 6.583$ ).

When discussing on issues of financing in focus group discussion, it came out from the participants that the youths were not fully satisfied with the support they receive from the principal supporter therefore seek more money from both relatives and sexual partners. Majority of the respondents reported to have gotten main financial support from the parents, some who received support from partners and relatives were likely to have casual relations and this increased use of the device among those who engaged in casual sexual relationships, ( $p \leq 0.001$ ,  $\chi^2 = 30.0781$ ,  $OR = 5.985$ ).

The main source of income was also considered significant in this study, those who received enough money for use reported low use or disuse of the female condom compared to those who do not get adequate funding from home sought extra money from casual sex partners as this was revealed in focused group discussion. On further probing and analysis, it was revealed that the cost of purchasing the female condom was a barrier to the users; this is in line with the findings of (Mujanayi, *et al.*, 2017; Mbelle, *et al.*, 2017) <sup>[11,13]</sup> which indicated that the high cost of the female condom lowered its availability in shops and other places of sale. These results were replicated in a study by Mashanda-Tafaune in Botswana (Mashanda-Tafaune & Monareng, 2016; Koster, Bruinderink, & Janssens, 2015) <sup>[8,6]</sup>.

The significant variables that were identified in this study are shown in table 2.

**Table 2:** Factors affecting accessibility and use of female condom

Variable	Category	Use of female condom		df	Statistical values
		Yes	No		
Awareness of female condom	Aware	11(2.8%)	341(89.8%)	2	P=0.04 $\chi^2 = 4.21$
	Not aware	3(0.8%)	25(6.6%)		
Availability of female condom posters	Available	4(1%)	251(66%)	2	P≤0.001 $\chi^2 = 9.7776$
	Not available	10(2.7%)	115(30.3%)		
Source of female condom	Health facility	3(0.8%)	39(10.3%)	2	P=0.207 $\chi^2 = 1.591$
	Others	11(2.9%)	327(86%)		
Availability of female condom	Available	3(0.8%)	4(1%)	2	P≤0.001 $\chi^2 = 30.839$
	Not available	11(2.9%)	362(95.3%)		
Cost of female condom	Affordable	1(0.3%)	190(50%)	2	P≤0.001 $\chi^2 = 25.349$
	Not affordable	13(3.4%)	176(46.3%)		
The point of sale/ distribution is accessible always	Yes	4(1%)	206(54.2%)	2	P=0.040 $\chi^2 = 4.1887$
	No	10(2.6%)	160(42.2%)		
Type of relationship between the youth and financial supporter	Parent/guardian	1(0.2%)	272(71.6%)	2	P≤0.001 $\chi^2 = 30.0781$
	Sexual partner	13(3.4%)	94(24.8%)		

**Conclusion**

Awareness on where to get the female condom from was significant in relation to use of the female condom. The youths were not aware of the female condom and its benefits had not used it. However, utilization of the female condom was low. Unavailability of the female condom significantly affected and limited use of the condom. Those

youth who felt the need to use the female condom were unable to access it when needed. Where to access the female condom from was not significant so long as it was available. Affordability of the female condom was associated with disuse of the female condom. Whenever the youths were able to afford the female condom, it was not stocked in the shops and kiosks. The male condom was found more

stocked than female condom in the supermarkets. The cost of the female condom also posed a barrier to use among the youths. Male condoms were reported to be distributed for free and there were male condom dispensers near the place of residence unlike female condom dispensers.

On accessibility, factors related to availability of female condom and the cost significantly affected use of the female condom. Reproductive health clinics lacked model for demonstrations for female condom insertion process and female condom dispensers and rarely promoted use of the female condom. However, awareness on where to access the female condom from was not significant compared to awareness on benefits of the female condom use.

### Assumptions

The study assumed that the respondents gave honest information.

### Study limitations

The research was limited to youths aged 18 – 35 years, who gave personal report of being sexually active. The respondent's feelings, attitude, social interaction and failure to respond to certain items in the questionnaire due to individual's culture and values were not easily controlled but large sample size was taken to minimize the errors in data collection.

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