

The association between knowledge of the female condom and the use among women age 18-24 years in Kisauni Sub-County, Mombasa -Kenya

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Abstract

The female condom (FC) is among the barrier method that provides double protection against unwanted pregnancy and sexually transmitted infections, including HIV and AIDS. The female condom was introduced in Kenya 25 years ago but the utilization rates are still low at a prevalence rate of 10.8% (Boraya et al., 2018). Despite the efficacy of the female condom, relatively low utilization rates are still reported, even in developing countries. Knowledge of female condom use can influence the utilization of this product. This study aimed to assess the association between knowledge on the female condom and use among women age 18-24 years in Kisauni Sub-County, Mombasa –Kenya. A descriptive cross-sectional study design was employed. A total of 148 women was sampled. A multi-stage cluster sampling method was used. Structured questionnaires and Focused Group Discussions were used to collect data. Descriptive analysis, chi-square model, and multivariate analysis were used to analyze the qualitative data. The level of significance was fixed at a P value of 0.05 (P=0.05). Qualitative data from FGDs were analyzed thematically. In this study, there was a significant relationship between having ever heard of the female condom and its utilization ($\chi^2=7.343$, df =1, P< 0.05) with a moderate effect size (phi 0.223). A chi-square test revealed a significant association between the participant's skills on FC use and its utilization ($\chi^2=7.343$, df =1, p<0.05). Chi-square test revealed a significant relationship between the use of female condoms and participants' knowledge concerning prevention against STIs and HIV/AIDS ($\chi^2=80.681$, df =1, p<0.05). There is a significant association between knowledge on pregnancy protection and utilization of the FC ($\chi^2=121.799$, df=1, p<0.05). There was a significant association between the knowledge about the reuse of female condoms ($\chi^2=9.524$, df =1, p<0.05) and its utilization.

Keywords: *Female condom use, Knowledge, Kisauni Sub- County*

Introduction

A Female condom is a sheath, or lining, that fits loosely inside a woman's vagina, made of thin, transparent, soft film. It has a flexible ring at both ends, which helps to insert and holding part of the condom outside the vagina. Female condoms are made of various materials, such as latex, polyurethane, and nitrile. It works by forming a barrier that keeps sperm out of the vagina, preventing pregnancy. It also helps to keep infections in semen, on the penis, or in the vagina from infecting the other partner. (WHO, 2018)

The Joint United Nations Programme on HIV/AIDS (UNAIDS) estimated that by December 2018, 37.9 million people worldwide were living with HIV/AIDS, 1.7 million new infections with HIV by the end of December 2018, 770 000 deaths from AIDS-related illness. Approximately 74.9 million people have been infected with HIV since the start of the epidemic by the end of the year 2018 and a total of 32.0 million deaths from AIDS-related illness since the start of the epidemic by December 2018. Furthermore, the report indicates that every week, approximately 6000 women aged 15–24 years become infected with HIV. In sub-Saharan Africa, four out of five new infections among adolescents aged 15–19 years are in girls and young women aged 15–24 years are twice more likely to be living with HIV than men. (DATA, 2019). In 2017, the National adult HIV prevalence rate in Kenya was estimated at 4.9% with prevalence higher among women (5.2%) than men (4.5%). The national

HIV prevalence in 2017 was reported at 2.61% in females as compared to males at 1.34% among males and females aged 15 to 24 years (Aids & Council, 2018).

The world efforts to control the spread of sexually transmitted infections, including HIV/AIDS, has led to the invention of Female Condoms that have enabled women to take control of their sexual and reproductive practices because it's known that the Female Condom Offers protection against unwanted pregnancy and Sexually Transmitted Infections, STIs) including HIV/AIDS. One of the major impacts of unplanned pregnancies is unsafe abortions that present a major health impact on the Community and the Nation as a whole. Hence, the Female Condom is one of the safest ways to limit the spread of Sexually Transmitted infections and unplanned pregnancies. (Ananga, Kugbey, Akporlu, & Oppong Asante, 2017).

"Globally, more than 1 million curable Sexually Transmitted infections occur each day". In the year 2016 according to WHO world estimates, there were approximately 376 million new infections of the four curable STIs, i.e. Chlamydia, Gonorrhoea, Syphilis, and Trichomoniasis. STI prevention plays a major role when it comes to the achievement of the Sustainable Development Goals. Approximately 200,000 fetal and neonatal STI-related mortalities are reported due to syphilis in pregnancy and over 280,000 cervical cancer deaths each year due to Human Papilloma Virus (HPV) (*Infection Surveillance*, 2018). Teen pregnancy and motherhood prevalence in Kenya is estimated at 18% and approximately one in every five adolescent girls have either had a live birth or is pregnant with her first child. And the rates increase rapidly with age from 3% among girls at 15 years to 40% girls at 19 years old. (Statistics, n.d.)

The Female Condom helps women to have more control over their reproductive health issues through the prevention of unwanted pregnancy and Sexually Transmitted Infections. Given that it has been available since 1993, accessibility for women in Sub-Sahara Africa or poor women has been difficult. There have been low utilization rates of the Female Condom as observed by the world Health agencies despite the continuous promotion. (Peters et al., 2014). In 2008, an estimated 2.4 million unsafe induced abortions occurred in Eastern Africa representing an increase from the year 2003. The rate of unsafe abortion is 36 per 1000 women of reproductive age. A study done on abortion-related complications over three months in Kenyan public hospital revealed that more than 300,000 abortions occur in Kenya annually i.e. 46 per 1,000 women of reproductive age. In Eastern Africa, it is estimated that 1:5 maternal deaths are related to unsafe abortions and more than 500 women die per 100,000 unsafe abortions (*In Brief*, 2012). Kenya's maternal mortality ratio due to unsafe abortions is 266 deaths per 100,000 live birth. Unsafe abortion is estimated to account for about 35% of maternal deaths in Kenya, compared to 13% globally and 18% in East Africa. The highest incidence of unsafe abortions occurred in Kenyan women below the age of 25 years. (Mohamed et al., 2018)

Globally, the unmet need for contraception is estimated to be around 215 million (WHO, 2012). A majority of this is from developing countries and in particular sub-Sahara Africa. According to the World Bank, sub-Sahara Africa has an average Conditional Payment Rate (CPR) of 21% (Bank, 2010). The low contraceptives use in sub-Sahara Africa is related to low acceptance and high cultural resistance to family planning. The social, financial, and strong kingship values attached to children in

the region are also believed to influence the uptake of contraceptives (Adebusoye-Makinwa, 2001). In Kenya, the total fertility rate is currently estimated to be around 4.6% and the contraceptive prevalence rate for all methods is around 46 percent, while the unmet need for family planning services is averaged at 24%. The contraceptive prevalence rate in rural areas was 43% compared to 53% in urban areas and the unmet need for family planning services in urban areas was 17 percent against 27 percent in rural areas (Kenya National Bureau of Statistics (KNBS); ORC Macro, 2010)

Worldwide, youths are more sexually active than any other population group. This in return predisposes them to risks like unwanted pregnancies, unsafe abortions, and sexually Transmitted Infections including HIV/AIDS (Access, 2017). Despite the efficacy of the female condom in preventing unwanted pregnancy, STIs and HIV transmission, relatively low utilization rates are still reported, even in developing countries. About 5000 new HIV infections a day are reported globally of which about 4400 are among adults aged 15 years and older, of whom: almost 47% are among women, about 32% are among young people (15–24), about 20% are among young women (15–24). About (51%) of new HIV infections in Kenya in 2015 were among adolescents and young people (aged 15-24 years), an increase from 29% in 2013. Young women are as twice as likely to acquire HIV compared to males and accounted for 33% of the total number of new infections (23,312) in 2015. Young Kenyan women are three times more likely to be exposed to sexual violence than young Kenyan men.

Age-disparate sexual relationships between young women mostly 18-24 years and older men are common globally, with a reportedly high level in both east and southern Africa and west and central Africa. In many instances, these relationships are transactional, in that they are non-commercial, non-marital sexual relationships motivated by the implicit assumption that sex will be exchanged for material support or other benefits. In South Africa, a study was done found out that a third of sexually active adolescent girls will experience a relationship with a man at least five years older.

According to the KDHS of 2014, women and men initiate sexual intercourse before marriage, at a median age of 18.0 for women and 17.4 for men. “Fifteen percent of women age 20-49 had first sexual intercourse by age 15, 50 percent by age 18, and 71 percent by age 20. Family planning lowers the risk of unwanted pregnancies among women. Family planning allows spacing of pregnancies and can delay pregnancies in young women at increased risk of health problems and death from early childbearing. It prevents unplanned pregnancies, including those of older women who face increased risks related to pregnancy. There is a high rate of contraception discontinuation rates reported in Kenya according to the Kenya Demographic Health Survey of 2014, eleven percent of episodes of discontinuation occurred because of side effects or health concerns, and 5 percent because the woman wanted to become pregnant. Health concerns or side effects are most often cited as the reason for discontinuing the use of implants (52 percent), IUDs (43 percent), injectable (38 percent), and the pill (28 percent). (Survey, 2014)

Adolescents and young women constitute the bulk of women who experience problems resulting from unsafe abortion due to their high risk for unintended pregnancies and lack of access to safe abortion services. More than 70% of women seeking post-abortion care were not using a method of contraception before becoming pregnant. A survey of 2012 by the Kenyan Ministry of Health,

African Population and Health Research Center and IPSAS found that there were 464,000 abortions induced that year, which translates to an abortion rate of 48 per 1,000 women aged 15–49; and an abortion ratio of 30 per 100 live births. About half (49 %) of all pregnancies in Kenya were unintended and 41 % of unintended pregnancies ended in an abortion. Marie Stopes International estimates that 2,600 women die from unsafe abortions annually, an average of seven deaths a day. Nearly 120,000 women are hospitalized each year due to abortion-related complications. Every day, 320 Kenyan women are hospitalized and seven die as a result of dangerous backstreet abortions, according to Marie Stopes International.

Methods

A structured questionnaire was used to gather quantitative data from the respondents on the study variables. Focus group discussions (FGDs) were used to collect qualitative data. A total of 2 focus group discussions was conducted where 12 participants were recruited for each FGD. One group consisted of married women while the other comprised unmarried women. FGD note-taker form was used to take notes during the Focus Group Discussions.

To ensure the quality of data collected, the following steps were undertaken: A pre-test was done at Jomvu Sub-County to pretest the data collection tools. This was done by randomly selecting a few research participants. The research assistants were recruited through a competitive process then they underwent training on data collection and the consenting process by the principal investigator and were closely monitored during the pilot phase to ensure their competency. Each questionnaire was checked for completeness, coherence, and accuracy on the same day of the interview after data collection.

Results and Discussion

Distribution of study participants by age. The highest proportion (18.24%) of the participants were 23 years old, (Table 4.1), the lowest proportion (8.78%) of the participants were 18 years old. Women of 19 years comprised 14.86%, 20 years old comprised 12.84%, 21 years old comprised 16.22%, women aged 22 years formed 15.54% and 24 years comprised 13.51%.

Table 1: Shows Distribution of study participants by age

Age	Frequency	Percent	Cum. Percent
18	13	8.78%	8.78%
19	22	14.86%	23.65%
20	19	12.84%	36.49%
21	24	16.22%	52.70%
22	23	15.54%	68.24%
23	27	18.24%	86.49%
24	20	13.51%	100.00%
TOTAL	148	100.00%	100.00%

Distribution of study participants by marital status

In this study, the majority of the participants (83%) were not married, 15% of the participants were married while 3% of the participants were separated by their partners

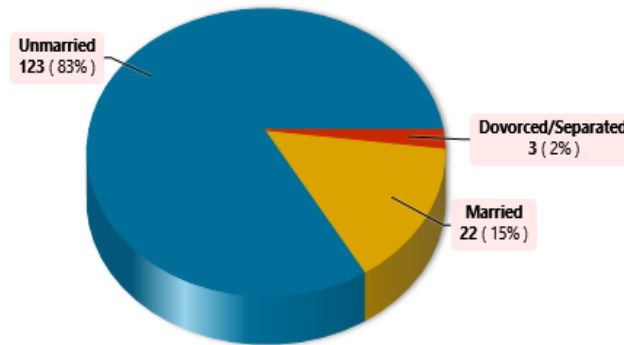


Figure 1: Distribution of study participants by marital status

Distribution of study participants by Number of children

The majority (74.32%) of the participants had no child while a small (25.65%) proportion of the participants had 1-5 children.

Table 2: Shows distribution of study participants by Number of children

Number of Living Children	Frequency	Percent	Cum. Percent
None	110	74.32%	74.32%
1-5 Children	38	25.68%	100.00%
TOTAL	148	100.00%	100.00%

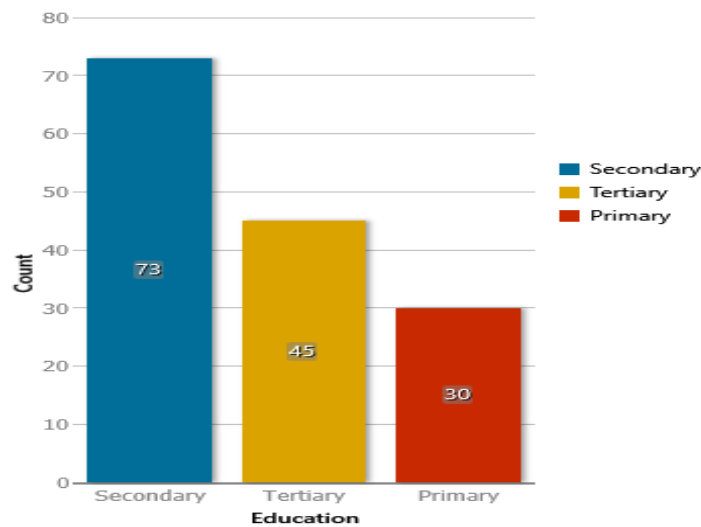


Figure 2: Distribution of participants by the employment status

The highest proportion (49%) of the study participants had attained secondary education followed by tertiary education at 30% then the lowest proportion was the primary education at 20%.

Distribution of participants by the employment status

Most (55%) of the participants are in informal employment followed by 41% of the participants who were students then 3% of the participants are formally employed.

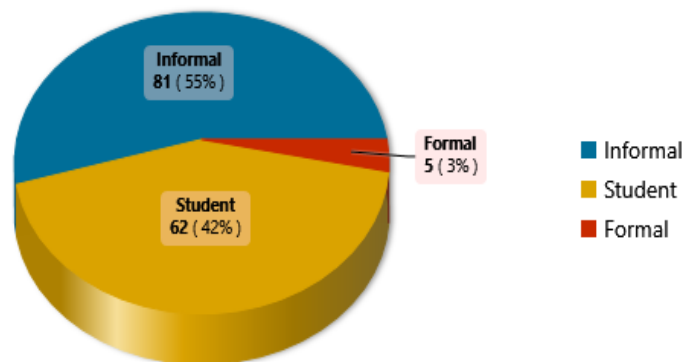


Figure 3: Distribution of participants by the employment status

Distribution of study participants by Religion

Close to half (48%) of the participants were Christians, followed by Muslims at (46%) then only 6% were Hindu

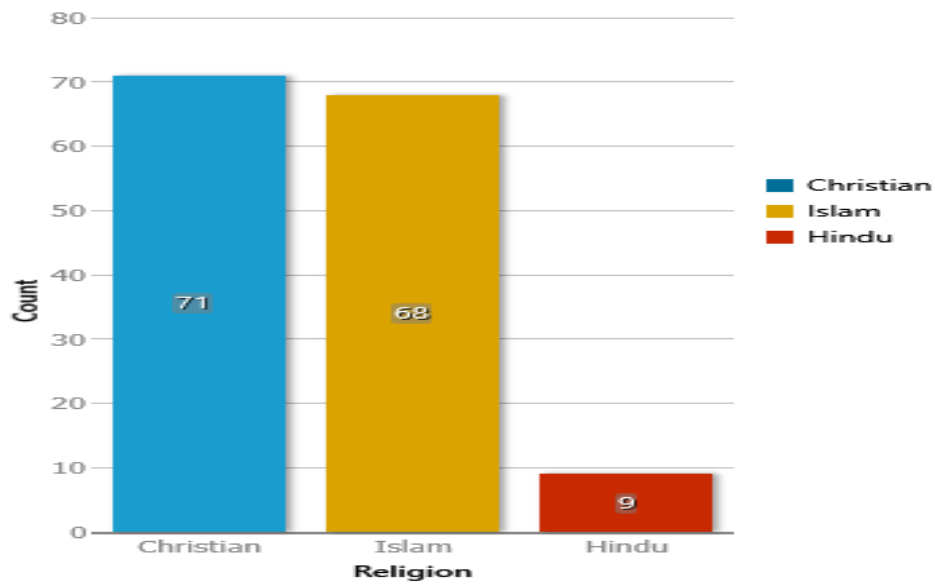


Figure 4: Distribution of participants by the religion

Table 3: The association between knowledge of female condoms and their use

Variable	Frequency	FC. use	χ^2 , df, p	Phi
Ever Heard of the female condom	100 (67.6%)	18 (94.7%)	$\chi^2=7.343$ df=1 p=0.007	0.223
Skills on female condom use	59 (39.9%)	18 (94.7%)	$\chi^2=7.343$ df=1 p=0.007	0.430
STIs and HIV/AIDS Prevention	137 (92.6%)	8 (42.1%)	$\chi^2=80.681$ df=1 p=0.000	0.738
Pregnancy Prevention	132 (89.2%)	3 (15.8%)	$\chi^2=121.799$ df=1 p=0.000	0.907
Reuse of female condom	103 (69.6%)	19 (100%)	$\chi^2=9.524$ df=1 p=0.002	0.254

An assessment was done to compare the relationship between knowledge about the female condom and its utilization. It was revealed that more than half of the study participants (67.6%) had heard of the existence of the female condom and 94.7% of the participants who used the female condom had prior information about the device. A chi-square test showed a significant relationship between having ever heard of the female condom and its utilization ($\chi^2 = 7.343$, $df = 1$, $P < 0.05$) the effect size assessed by Phi was moderate (0.223). Similar results were obtained during the focused group discussion where the majority of the participants in two groups were aware of the existence of the female condom out of which utilization was higher as compared to those who have never heard of the existence of this device.

Data on the participant's skills on how to use a female condom revealed that less than half (39.9%) of the participants knew how to use the female condom and up to 97.4% of those who use the female condom knows how to use it. A chi-square test revealed a significant association between the participant's skills on FC use and its utilization ($\chi^2 = 7.343$, $df = 1$, $p < 0.05$), with a strong effect size ($\phi = 0.430$). Similar findings were seen among the focused group participants where few of the participants had skills on the utilization of the female condom. The majority of the participants in the married-focused group had gained knowledge during the post-natal visits to the hospital. Knowledge of female condoms role in the prevention against STIs including HIV/AIDS was assessed. The majority of the participants (92.6%) were aware that the female condom was effective in the prevention of STIs and HIV/AIDS. Close to half of those who utilize the female condom, the main reason for use was STIs and HIV/AIDS prevention. Chi-square test revealed a significant relationship between the use of female condoms and participants' knowledge concerning prevention against STIs and HIV/AIDS ($\chi^2 = 80.681$, $df = 1$, $p < 0.05$) with a strong effect size ($\phi = 0.738$). During the focused group discussions, it was also revealed that the majority of the participants in both groups were aware that the female condom was effective in the prevention against STIs including HIV/AIDS.

The knowledge of the respondents on the importance of female condoms in pregnancy prevention was assessed. More than three-quarters (89.2%) of the participants were aware that a female condom can protect against unplanned pregnancy, and out of the participants who use a female condom, only 15.8% use it as a contraceptive method. The Chi-square test showed a significant association between knowledge on pregnancy protection and utilization of the FC ($\chi^2 = 121.799$, $df = 1$, $p < 0.05$) with a strong effect size ($\phi = 0.907$). Similar results were observed during the FGD where a

majority of the participants agreed that the female condom was effective in the protection against unwanted pregnancy.

The participant's knowledge concerning the reuse of the female condom was assessed, it was revealed that close to three quarters (69.6%) of the participant were aware that FC cannot be reused as compared to 34.9% who did not know if the female condom can be reused. There was a significant association between the knowledge about the reuse of female condoms ($\chi^2=9.524$, $df=1$, $p<0.05$) and its utilization with a moderate effect size ($\phi=0.254$). During the FGD, about half of the participants were aware that female condoms could not be reused, close to three-quarters of the FGD participants had no idea if the FC can be reused

Conclusion

In conclusion, the study established that very few sexually active women aged 18-24years in Kisauni sub-County use a female condom. The demographic characteristics of an individual do not influence the utilization of the female condom

Knowing the female condom does not translate to its actual use. The majority of the respondents were aware of the existence, some had skills on how to use but very few could actualize and use the device.

Disclosure statement

The authors report no conflict of interest

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