Knowledge and Attitude to Female Condom Use among Undergraduates of Kigali Health Institute

Mbarushimana Valens[1*] and Ntaganira Joseph, PhD[2]

[1]*Kigali Health Institute, Examination office; Rwanda Public Health Association*
[2]*National University of Rwanda School of Public Health*

Abstract

Background: Proper use of condom prevents Sexually Transmitted Infections (STIs) and unwanted pregnancies. Efforts have been made in Rwanda to raise the population awareness on the use of the Female Condom but little is known about the current status of its use among college students. **Objectives:** To assess the knowledge, attitudes and use of the female condom among undergraduates of Kigali Health Institute. **Methods**: A descriptive study was carried out between May and June 2010. The sample was randomly selected from the students of Kigali Health Institute. A questionnaire based study was conducted involving 429 students. It captured the sample characteristics, their knowledge, attitudes and use of the female condom. The data were entered and analysed in SPSS 16.0. **Results:** About 79% of the students were aware of the female condom, but only 24% knew how to use it. Most respondents believed that the female condom can prevent the unwanted pregnancies (78%), the STIs and HIV/AIDS (81%). About 8% had ever tried it and less than three percent cited it as their contraception method. **Conclusion:** Awareness of the female condom was high but few students knew how to use it. Overall, favourable attitudes were recorded though neutral ones were higher and use of female condom was very low.

Key words: Knowledge, attitude, use, female condom

Introduction

Consistent and appropriate use of condom is the most effective way of preventing HIV/AIDS transmission [1] and unwanted pregnancies. [2] Studies suggest that women are more likely to get infected with sexually transmitted diseases (STDs) than men and to bear the consequences associated with unplanned pregnancies, and STDs. [2] The use of the female condom is seen as a way of providing protection to women against sexually transmitted infections (STIs) and unwanted pregnancies. [3] Indeed, the female condom has emerged as an acceptable alternative barrier method to the male condom. [4] In order to promote the access to the female condom, its awareness, availability and use, mass media campaigns have been undertaken worldwide, [2, 5, 6] and studies aimed at evaluating impact of these campaigns were conducted. [7] Stockman and Associates recommend to increase the availability of female condom and to provide the populations with education on their use. [8] Besides, mass media campaigns are likely to contribute to the adoption of the female condom use. [9] Availability and marketing of female condom were launched in Africa since 1996. [5, 10] In Rwanda, like elsewhere, efforts have been undertaken to raise the population's awareness of the female condom but little is still known about it among college undergraduates. To increase access, demand and utilisation of the condom, the Government of Rwanda plans to provide the populations with information on both male and female condoms. [11] To this end, some of the efforts to promote the female condoms include the advertisement posted nationwide trough the partnership between public and private sectors; other efforts are made by Population Service International (PSI) [12] by sensitization.

Making female condoms available and accessible to all populations is one of the key activities of the Government of Rwanda as highlighted in its 2009 – 2012 National Strategic Plan. [11] Through this process, continuous supply, free distribution and social marketing of condom are to be reinforced with special emphasis on female condom. Strengthening initiatives for female condom promotion is a key strategy related to female condom promotion during this period. Also female condoms consumption was due to increase from only 5,500 in 2008 to 214,000 in 2010. [11]

Despite the availability of the female condom and theoretically based interventions to promote its use, studies suggest low levels of use among populations. [1] Also the literature suggests the need to improve both

***Correspondance:** Mbarushimana Valens; email: mbavalens@gmail.com

lack of knowledge and positive attitudes towards the female condom. [13] The knowledge and attitudes towards the female condom are considered to be among the female condom use determinants. [1] In view of that, an assessment of knowledge, attitude and use of the female condom among undergraduates of Kigali Health Institute was undertaken to establish the current status and recommend possible strategies. According to the literature, the factors such as age, educational status, multiple sexual relationships and the knowledge of female condom are considered as significant markers of the female condom use. [1] In another study, living with a partner, having prior knowledge of the device and the participant's age were associated with trying the female condom. [6] Also, correlation between age and female condom use was found in the US where younger women aged under 25 were less likely to use the female condom than older women. [14]

Methods

Study Area and Population

A descriptive cross–sectional study was conducted between May and July 2010 at Kigali Health Institute which is a higher learning institution for nursing and allied health professionals. The study consisted of 1153 undergraduates out of whom a sample of 429 was randomly selected. Each participant signed an informed consent form before completing the questionnaire after an explanation had been given fully about the objectives of the study. A self – administered questionnaire in the local language (Kinyarwanda) was used to collect the data. Before its administration, the questionnaire had been pre-tested among individuals that did not form part of the study sample. This questionnaire captured socio-demographic characteristics, knowledge, attitudes and use of the female condom.

The demographic characteristics were age, gender, matrimonial status, religion, level of education, number of sexual partners during the previous 3 months of the study and the number of deliveries.

Instrument

To assess the knowledge, the participants were asked if they had ever seen or heard of the female condom, and the sources of first information regarding the female condom. Participants were also asked if they knew how to use the female condom where they had learnt it. Attitudes regarding the female condom were measured on the Likert – scale with 5 point - levels of agreement: strongly disagree, disagree, neutral, agree and strongly agree.

The assessment of attitudes was performed on the efficacy of the female condom in preventing sexually transmitted infections (HIV/AIDS included) and unplanned pregnancies with comparison to the male condom; the participants beliefs whether the female condom reduces the sexual intercourse pleasure or interferes with it, and the fear of being negatively considered by the sexual partner or by the society in general. Participants were also asked to give their opinion on the female condom insertion and its aspect, their intention for future use. To assess the use of the female condom, questions were asked about its availability and if the student had used the female condom at least once.

Data analysis

The data were analysed in SPSS 16.0, to determine proportions of individuals with respect to their knowledge, attitude and practice as well as associations between personal characteristics and such features. For such purpose descriptive statistics and chi–square (χ^2) test were used accordingly. The agreement and disagreement points were pooled into "agree" and "disagree" respectively.

Results

Socio – demographic information

As shown in Table one, 428 undergraduates were interviewed of whom 52.3% (224/428) were men and 47.7% (204/428) were women. The majority of women were aged 25 years and above. The mean age was 25 years [24.5 years – 25.5 years] with a standard deviation of 4.7 years. Participants from 18 and 24 years were represented by 57.2% (n=211). The campuses were almost equally represented with 50.7% (n=217) from Kigali (urban setting) and 49.3% (n=211) from Nyamishaba (rural setting). First and second year students accounted for 64.4% (n=270) of the respondents and the third and fourth year classes were less represented. About 50.9% (216/424) of the respondents were the Roman Catholics while the Pentecostals, Adventists and Jehovah's Witnesses were totally represented by 38.9% (165/424). Muslims and other religions were represented by 10.1 (43/424). The number of single respondents was the highest at 82.8% (n=351) and married respondents accounted for 17.2% (n=73). About 75.9% (322/424) of the participants had had no sexual partner during the three months preceding

the study, while 24.1% (102/424) had had one or more partners (table 1).

Table 1 Socio – demographic characteristics of the sample

Characteristic		N	%
Gender	Male	224	52.3
	Female	204	47.7
	Total	428	100
Age Group	18 -24	211	57.2
	25+	158	42.8
	Total	369	100
Marital Status	Single	351	82.8
	Married	73	17.2
	Total	424	100
Religion Affiliation	Catholic	216	50.9
	Protestant	165	38.9
	Others	43	10.1
	Total	424	100
Campus	Kigali (urban setting)	217	50.7
	Nyamishaba (rural setting)	211	49.3
	Total	428	100
Education class Level	1st-2nd	270	64.4
	3rd	99	23.6
	4th	50	11.9
	Total	419	100)
Number of sexual partners during the last three months*	0	322	75.9 (71.9 – 80.0)
	1+	102	24.1 (20.0 – 28.1)
	Total	424	100

$X^2=351$, df=2, p<0.001

Knowledge of the female condom

Around 79% (331/419) of the respondents had ever heard of the female condom, or seen it from the distributors 45% (156/347) and from the advertisers 55% (191/347) as shown in Table 2. Most younger (18 - 24 years) respondents (39.5%, n=122) become aware of the female condom from the advertisement while a large number of older respondents (≥25 years) use the distribution/selling outlets (health centres, hospitals and pharmacy) as their primary sources of information on female condom (χ^2=23.110; p<0.001). Indeed, sources of awareness of the female condom were associated with participants' educational level: for first and second year students, advertisements account for 36.9% (n=125) while distribution accounts for 26.5% (n=90); lack of information on female condom was expressed by fourth year students (χ^2=11.049; p=0.004). Advertisement was the main source of information for most single respondents (49%, n=168) while distributors and sellers of the female condom were the main source for most married respondents (10.5%, n=36; x^2=8.615, p=0.003) as shown in Table 3.

Table 2 Knowledge of the Female Condom (FC)

Variable		N	% (CI)
Ever heard of FC	Yes	331	79 (75.1 – 82.9)
	No	88	21 (17.1 – 24.9)
	Total	419	100
Source of first information on FC	Distribution/selling outlet	156	45 (39.7 – 50.2)
	Advertising outlets	191	55 (49.8 – 60.3)
	Total	347	100
Knowledge on how to use the FC	Yes	98	23.7 (19.6 – 27.8)
	No	316	76.3 (72.2 -80.4)
	Total	414	100
Source of skills on use of FC	Health Centre, Referral Hospital	22	28.6 (18.5 – 38.7)
	University /School setting	31	40.3 (29.3 – 51.2)
	Special training	13	16.9 (8.5 -25.3)
	Others	11	14.3 (6.5 – 22.1)
	Total	77	100

Young participants aged 18-24 years (48.5%, 175/361) had heard of or seen the female condom more than others (p=0.189); no significant difference was observed for all socio - demographic characteristics considered. Only 23.7% (98/414) reported that they knew how to use the female condom. Among those declaring that they knew how to use the female condom, mostly learnt it from their academic setting 40.3% (31/77), 28.6% (22/77) from the healthcare institutions (Health facilities and Referral Hospitals) while 16.9% (13/77) knew how to use the female condom from trainings and 14.3% (11/77) got skills to use the female condom from different occasions (Table 2).

Respondents from KHI, Kigali campus (urban setting) were twice (15.9%, n=66) more likely to know how the female condom is used than respondents from Nyamishaba campus (rural setting) (χ2=13.786; p<0.001). Respondents in lower class levels (11.6%, n=47) were also more likely to know how it is used (χ2=18.163; p<0.001) as shown in Table 4. Indeed, with regards to religious affiliation, Catholics were more likely to know how to use the female condom than others (χ2= 7.370, p=0.025) as shown by Table 4.

Table 3 Sources of awareness of the female condom

Sources of first information on FC					
Variable		**Distribution/Selling outlet (Health Centre, Referral Hospital, pharmacy) N (%)**	**Advertising outlets N (%)**	**X^2 (df)**	**P – value**
Gender	Male	79 (22.8)	107 (30.8)	0.999 (1)	0.317
	Female	77 (22.2)	84 (24.2)		
Age group	18 – 24 years	59 (19.1)	122 (39.5)	23.110 (1)	<0.001
	≥ 25 years	77 (24.9)	51 (16.5)		
Marital Status	Single	117 (34.1)	168 (49)	8.615 (1)	0.003
	Married	36 (10.5)	22 (6.4)		
Religion	Catholic	76 (22.1)	96 (27.9)	0.213 (2)	0.899
	Protestant	63 (18.3)	76 (22.1)		
	Other	16 (4.7)	17 (4.9)		
Campus	Kigali	96 (27.7)	83 (23.9)	11.243 (1)	0.001
	Nyamishaba	60 (17.3)	108 (31.1)		
Education Level	1st& 2nd years	90 (26.5)	125 (36.9)	11.049 2)	0.004
	3rd Years	47 (13.9)	31 (9.1)		
	4th years	15 (4.4)	31 (9.1)		
No. of sexual partners during last 3 months	None	110 (32)	151 (43.9)	3.007 (1)	0.083
	≥1	44 (12.8)	39 (11.3)		

Table 4 Knowledge of FC and socio - demographic characteristics

Knowledge on how to use the FC					
	Characteristic	**Yes N (%)**	**No N (%)**	**X^2 (df)**	**P – value**
Gender	Male	54 (13)	164 (39.6)	0.30 (1)	0.579
	Female	44 (10.6)	152 (36.7)		
Age group	18 – 24 years	44 (12.3)	161 (44.8)	2.838 (1)	0.092
	≥ 25 years	45 (12.5)	109 (30.4)		
Marital Status	Single	77 (18.7)	262 (63.7)	1.362 (1)	0.243
	Married	21 (5.1)	51 (12.4)		
Religion	Catholic	50 (12.2)	159 (38.8)	7.370 (2)	0.025
	Protestant	31 (7.6)	127 (31)		
	Other	17 (4.1)	26 (6.3)		
Campus	Kigali (urban setting)	66 (15.9)	145 (35)	13.786 (1)	<0.001
	Nyamishaba (rural setting)	32 (7.7)	171 (41.3)		
Education Level	1st& 2nd years	47 11.6)	213 (52.6)	18.163 (2)	<0.001
	3rd years	28 (6.9)	68 (16.8)		
	4th years	22 (5.4)	27 (6.7)		
No. of sexual partners during last 3 months	None	67 (16.3)	244 (59.4)	2.350 (1)	0.125
	1+	29 (7.1)	71 (17.3)		

Attitudes towards the female condom

Table 5 illustrates information regarding respondents' attitudes towards the female condom. More respondents (81.2%, n=345), agreed that the female condom use can prevent the sexually transmitted infections, and unwanted pregnancies (77.9%, n=332). About 58.4% (n=246) agreed that the female condom is as effective as the male condom regarding the level of protection while 31.6% (n=133) remained undecided about the matter. Likewise, as many as 72.4%, (n=302) expressed a positive opinion that female condom use would not negatively be considered by their sexual partners. Female condom use was also regarded by 53.8% (n=227), not to imply lack of trust for the sexual partner, while 28% (n=117) were contrary to that view. In addition, half of the respondents (50.2%, n=213) indicated that Rwandan culture was not hostile to the female condom use and almost the same number (49.2%, n=207) attested that their religious beliefs do not discourage its use.

Table 5 Attitudes towards the female condom

	Disagree N (%)	**Neutral N (%)**	**Agree N (%)**	**Total N (%)**
Efficacy in unwanted Pregnancy prevention	23 (5.4)	71 (16.7)	332 (77.9)	426 (100)
Efficacy in HIV/AIDS prevention	25 (5.9)	56 (13.1)	345 (81)	426 (100)
Efficacy in STD prevention	15 (3.5)	65 (15.3)	345 (81.2)	425 (100)
FC Use implies mistrust by sexual partner	227 (53.8)	78 (18.5)	117 (27.7)	422 (100)
FC protects as the male condom does	42 (10)	133 (31.6)	246 (58.4)	421 (100)
Religious beliefs ban female condom use	207 (49.2)	87 (20.7)	127 (30.2)	421 (100)
Culture bans female condom use	213 (50.2)	108 (25.5)	103 (24.3)	424 (100)
FC Use would be negatively considered by Sexual partner	302 (72.4)	70 (16.8)	45 (10.8)	417 (100)
FC Use provides more safety to Women	96 (22.7)	209 (49.4)	118 (27.9)	423 (100)
FC Use interferes with sexual intercourse	29 (8.5)	252 (73.5)	62 (18.1)	343 (100)
FC use changes sexual satisfaction	43 (13.1)	219 (66.8)	66 (20.1)	328 (100)
Would use FC if available	88 (28.2)	89 (28.5)	135 (43.3)	312 (100)
FC insertion is easier	106 (71.1)	27 (18.1)	16 (10.7)	149 (100)
Overall use mechanics (FC is easy to use)	104 (70.7)	27 (18.4)	16 (10.9)	147 (100)
Would recommend FC to friends	64 (18.7)	93 (27.1)	186 (54.2)	343 (100)

About 54% (n=186) of the respondents would recommend the female condom to their friends but more women than men had a negative attitude (p=0.023).

Table 6 Respondents' attitudes toward the FC according to socio - demographic characteristics

FC use prevents unwanted pregnancies		Disagree N (%)	Neutral N (%)	Agree N (%)	Total N (%)	P – value
Gender	Male	9 (2.1)	27 (6.4)	186 (43.8)	222 (52.2)	p=0.013 ; χ2=8.731; df=2
	Female	14 (3.3)	43 (10.1)	146 (34.4)	203 (47.8)	
Total		23 (5.4)	70 (16.5)	332 (78.1)	425 (100)	
FC is efficacious in preventing HIV/AIDS						
Campus	Kigali	17 (4)	35 (8.2)	164 (38.6)	216 (50.8)	p=0.018 ; χ2=8.055 ; df= 2
	Nyami-shaba	8 (1.9)	20 (4.7)	181 (42.6)	209 (49.2)	
Total		25 (5.9)	55 (12.9)	345 (81.2)	425 (100)	
FC protects as the male condom						
Gender	Male	23 (5.5)	56 (13.3)	140 (33.3)	219 (52.1)	p=0.025 ; χ2=7.353 ; df=2
	Female	19 (4.5)	76 (18.1)	106 (25.2)	201 (47.9)	
Total		42 (10)	132 (31.4)	246 (58.6)	420 (100)	
FC use provides more security to women						
Gender	Male	53 (12.6)	96 (22.7)	71 (16.8)	220 (52.1)	p=0.030 ; χ2=7.011 ; df=2
	Female	43 (10.2)	113 (26.8)	46 (10.9)	202 (47.9)	
Total		96 (22.7)	209 (49.5)	117 (27.7)	422 (100)	
No. Sexual partners	0	69 (16.5)	170 (40.6)	79 (18.9)	318 (75.9)	p=0.018 ; χ2=8.02 ; df=2
	1+	24 (5.7)	39 (9.3)	38 (9.1)	101 (24.1)	
Total		93 (22.2)	209 (49.9)	117 (28)	419 (100)	
FC is an alternative to the male condom users						
Gender	Male	35 (8.4)	90 (21.5)	92 (22)	217 (51.8)	p=0.001 ; χ2=14.435; df=2
	Female	28 (6.7)	120 (28.6)	54 (12.9)	202 (48.2)	
Total		63 (15)	210 (50.1)	146 (34.8)	419 (100)	
FC use is meant of mistrust for the sexual partner						
Campus	Kigali	123 (29.2)	48 (11.4)	43 (10.2)	214 (50.8)	p=0.001 ; χ2=13.390; df= 2
	Nyami-shaba	104 (24.7)	30 (7.1)	73 (17.3)	207 (49.2)	
Total		227 (53.9)	78 (18.5)	116 (27.6)	421 (100)	
Gender	Male	119 (28.3)	32 (7.6)	69 (16.4)	220 (100)	p= 0.041 ; χ2=6.374 ; df=2
	Female	108 (25.7)	46 (10.9)	47 (11.2)	201 (47.7)	
Total		227 (53.9)	78 (18.5)	116 (27.6)	421 (100)	
FC use would be negatively considered by sexual partner						
Campus	Kigali	139 (33.4)	44 (10.6)	26 (6.3)	209 (50.2)	p=0.016 ; χ2=8.219; df=2
	Nyami-shaba	163 (39.2)	25 (6)	19 (4.6)	207 (49.8)	
Total		302 (72.6)	69 (16.6)	45 (10.8)	416 (100)	
No. Sexual partners	0	234 (56.8)	53 (12.9)	26 (6.3)	313 (76)	p=0.0098; χ2=9.25 ; df=2
	1+	64 (15.5)	16 (3.9)	19 (4.6)	99 (24)	
Total		298 (72.3)	69 (16.8)	45 (10.9)	412 (100)	
Class Level	1st& 2nd	206 (50.6)	35 (8.6)	25 (6.1)	266 (65.4)	p=0.02 ; χ2=7.82; df=2
	3rd& 4th	91 (22.4)	30 (7.4)	20 (4.2)	141 (34.6)	
Total		297 (73)	65 (16)	45 (10.3)	407 (100)	

However less than half of respondents (43.3%, n=135) would use it if made available; and less females showed a positive attitude than males (p=0.001). The majority found it difficult to insert (71.1%, n=106) and use (70.7%. n=104). Most respondents were neutral on the sexual pleasure change (66.8%, n=219) or interference (73.5%, n=252) with the sexual intercourse.

Female respondents were more likely to have neutral attitudes regarding efficacy of FC aigainst unwanted pregnancies (p=0.013), equal protection to that provided by the male condom (p=0.025), provision of higher level of security to women (p=0.030) and less female than male respondents strongly disagreed that FC use is meant of mistrust for their sexual partners (p=0.041) as shown in Table 6. Indeed most respondents from Nyamishaba Campus (rural setting) were more likely to have a favourable attitude regarding efficacy of FC aigainst HIV/AIDS (p=0.018) and the majority of them strongly disagreed that FC use would be negatively considered by their sexual partners (p=0.016). Respondents withouth sexual partners strongly disagreed that FC use would be negatively considered by their sexual partners (p=0.0098).

The use of female condom depends on its availability. Some respondents (17.6%) said that there were female condoms distributors. About 39.1% (n=111) were using contraception and only three respondents (2.5%) said they were using the female condom (Table 7).

Table 7 Respondents' use of contraception

Existence of FC distributors	**N**	**% (C.I)**
Yes	72	17.6 (13.9-21.3)
No	336	82.4 (78.7-86.1)
Total	408	100
Use of contraception		
Yes	111	39.1 (33.4 – 44.8)
No	173	60.9 (55.2-66.6)
Total	**284**	**100**
Contraceptive method used		
Female Sterilization	4	3.4 (0.1-6.6)
Male Sterilization	2	1.7(-0.6-4.0)
Pills	14	11.8 (6.0-17.6)
IUD	5	4.2 (0.6-7.8)
Injectables	9	7.6 (2.8-12.3)
Implants	16	13.4 (7.3-19.6)
Male Condom	28	23.5 (15.9-31.2)
Female Condom	3	2.5 (-0.3-5.3)
Lactational Amenorrhea Method (LAM)	2	1.7 (-0.6-4.0)
Standard days method/beads	12	10.1 (4.7-15.5)
Periodic Abstinence	8	6.7 (2.2-11.2)
Withdrawal	8	6.7 (2.2-11.2)
Others	8	6.7 (2.2-11.2)
Total	**119**	**100**

Discussion

The purpose of this study was to assess the knowledge, attitudes and use of female condom among undergraduates of Kigali Health Institute. Awareness of the female condom was high but most respondents lacked skills to use it. Although many respondents had favourable attitudes towards the female condoms and believed that it can be used to prevent unwanted pregnancies, STIs and HIV/AIDS, use of female condom was very low.

More research findings suggest that participants' awareness of the female condom was higher among studied populations. In a study done in University of Ibadan in Nigeria, the findings revealed that among the undergraduate females, over 80% had knowledge of the female condom as a modern contraception method.[15] Education status, religious affiliation and setting (rural or urban) were associated with knowledge of the Female condom like in other studies. [1, 6, 14] Social marketing is thought to increase awareness about the use of female condoms as indicated in some studies elsewhere. [9 , 10] The role of media and health workers was also highlighted as the main sources of information on the female condom. Age was associated with sources of first information on female condom: younger respondents get aware of the female condom from the advertising outlets while older respondents get first information from the distribution/selling outlets such as health centres, hospitals or pharmacy. Although the female condom awareness was high among respondents, few had got skills to use it. Female condom users should be provided with general information regarding mechanics of use, protective functions and effectiveness. [16] Female condom use is statistically associated with knowledge of the female. Research findings also suggest that skills training can increase female condom use and protected sexual acts. [17] There is lack of acceptability of the female condom by health care providers as suggested by several studies in South Africa, USA and Kenya. [26]

More respondents had a favourable attitude towards the efficacy of the female condom in prevention of sexually transmitted infections and unwanted pregnancies. Similar results were obtained in researches done in Zimbabwe [18] and Italy [19] where female condom was extremely efficacious in STIs and pregnancies prevention. Other studies suggested that the majority of women (85%) feel more in control of disease prevention for themselves when using the female condom than the male condom. [6] Sex workers also

most liked the female condom in Zimbabwe. [20] Acceptability of the female condom is sometimes higher than the male condom. [21] Difficulties related to the female condom insertion were reported by the majority of the respondents as it was the case in another study. [19]Conversely, females disliked the Female Condom insertion. [22] However, insertion was very easy for the majority of sex workers in Zimbabwe and use became easier with practice. [20] Intention to use the female condom was also low in this study. Similar results were found respectively in Italy and Lusaka (Zambia). [19, 7] Studies showed that though the female condom is rated as acceptable by the majority of females, less than 29% would use the device in the future, about 25% would abandon its use and indecision is as higher as 46.9%. [23] Other research findings suggested that the number of women with future intention to use the female condom was a bit promising [22] and, for sex workers, 94.4% would use the female condom. [21] In another investigation, of the 144 Puerto Rican low-income women, the majority reported a willingness to use the female condom. [2]

Although the majority of the respondents denied mistrust, negative consideration by the sexual partner, culture, religion and friends influence over condom use has been reported among young adults, [24] hence condom negotiation is of a great importance in condom use. Although neutral attitude were reported regarding the sexual pleasure change, couples experienced a diminished sexual satisfaction in Thailand. [2] In contrast, a study on some couples in Kenya revealed that the majority of women liked the female condom, but sexual pleasure reduction was also expressed. [2] Studies suggested that the distribution of the female condom is linked to its cost. Raw material is expensive and the manufacturing technology is high. [25] However, the availability of the female condom, though limited comparing to the male condom, can considerably increase its demand. [26] Meanwhile having female condoms available is not the major potential concern. [27] The use of female condom was low. Less than eight per cent had ever tried it and very few reported that it as their current contraceptive method. Unfamiliarity with the female condom has been associated with not wanting to try it. [2] The low use of the female condom was also highlighted in many studies. [7, 15, 18] The female condom use was still low following its social marketing campaign in Zimbabwe. [28] Lower use was recorded in Zimbabwe [29] and unused in America. [24] Verse us the number of female condom users were a bit higher in Zambia. [30] Even so, there are cases where women were recruited and instructed on the use of the female condom and encouraged to try it, but few women tried it. [6] Findings from some studies suggest that low use of the female condom has been associated with availability, access and difficulties in use compared the male condom. Surprisingly, research findings suggest that the male condom regular use is also low (36%) in secondary schools. [31]

Conclusion

Awareness on the female condom was high but very few respondents had skills to use it. Most respondents had positive attitudes towards the female condom regarding the prevention effectiveness against sexually transmitted infections and unwanted pregnancies. However, female respondents were sometimes the most indifferent than were male. The practice of female condom was also very low, so was its availability.

Limitations of this study

The intent of this study was to collect exploratory data on the female condom use in an academic setting. Given this, the results of this study cannot be generalisable to the rural setting populations, mostly with low levels of education and with different environmental characteristics. Indeed, the sample population was made of future health professionals that might have higher knowledge related to health care than others. The results can worsen in non health professional participants and there is a need for a nationwide research on the knowledge, attitudes and practice of the female condom.

Acknowledgement

The author is grateful to Mrs.Albertine Uwamariya for data collection.

Conflict of interest

There is none.

References

1. Holmes Jr. L, Ogungbade GO , Ward DD , Garrison O , Peters RJ., Kalichman SC, Lahai-Momohe J et Essien EJ. Potential markers of female condom use among inner city African-American Women. *AIDS Care*, 2008; 20(4):470-7.
2. Cecil H, Perry MJ, Seal DW, Pinkerton SD. The Female Condom: What We Have Learned Thus Far. *AIDS and Behaviour*,1998; 2(3):241-56.
3. Meekers D and Richter K. Factors associated with Use of the Female Condom in Zimbabwe. *International Family Planning Perspectives*, March 2005 ;31 (1):30-7.
4. Witte SS, El - Bassel N, Wu E, Chang M, Hill J. Promoting Female Condom Use to Heterosexual Couples: Findings from a Randomized Clinical Trial. *Perspectives on Sexual and Reproductive Health*, September 2006; 38(3):148-54.
5. UNAIDS.Launching and Promoting the Female Condom in Eastern and Southern Africa. UNAIDS,1999.
6. Sly DF, Quadagno D, Harrison DF, Ebertein IW, Riehman K, Bailey M. Factors Associated with Use of the Female Condom. *FamPlannPerspect*, Jul-Aug 1997; 29(4):181-4.
7. Agha S. Intention to Use the Female Condom Following a Mass-Marketing Campaign in Lusaka, Zambia. *American Journal of Public Health*, February 2001; 91(2):307-10.
8. Stockman J, Morris M, Martinez G, Lozada R, Patterson T, Ulibarri M et al. Prevalence and Correlates of Female Condom Use and Interest Among Injection Drug-Using Female Sex Workers in Two Mexico-US Border Cities, *AIDS Behav*, June 19, 2012
9. Agha S. The Impact of Mass Media Campaign on Personal Risk Perception, Perceived Self-efficacy and Other Behavioural Predictors,*AIDS Care*, 2003; 15(6):749-62.
10. Deniaud F. Current Status of the Female Condom in Africa. *Sante*, Nov-Dec 1997; 7(6):405-15.
11. Republic of Rwanda National AIDS Control Commission (June 2008): Strategic Plan for Comprehensive Condom Programming in Rwanda 2009-2012. CNLS.
12. Barigye T. Female Condoms Scarce and Costly —PSI. [Online]. 2009 Aug 21 [Cited 2010 Jul 21]; Available from: http://www.newtimes.co.rw/news/index.php?i=13994&a=19027
13. Bull S, Posner S, et al. Knowledge of, Attitudes towards, and Stages of Changes for Female and Male Condoms among Denver Inner-city Women. *Journal of Urban Health: Bulletin of the New York Academy of Medicine*, 2003; 80(4):658-66.
14. Vijayakumar G, Mabude Z, Smit J, Beskinska M & Lurie M. A Review of Female - Condom Effectiveness: Patterns of Use and Impact on Protected Sex Acts and STI Incidence. *International Journal of STD & AIDS*, 2006; 17: 652-9.
15. Okunlola MA, Morhason-Bello IO, Owonikoko KM, Adekunle AO. Female condom awareness, use and concerns among Nigerian female undergraduates. *Journal of Obstetrics and Gynaecology*, May, 2006; 26(4):353-6.
16. Torres MI, Tuthill R, Lyon-Callo S, Herandez CM,and Epkind P. Focused Female condom education and Trial: Comparison of young African American and Puerto Rican women's assessment. *International Quarterly of Community Health Education*, 1999; 18(1):49-68.
17. Choi KH, Hoff C, Gregorich SE, Grinstead O, Gomez C, Hussey W. The Efficacy of the Female Condom Skills Training in HIV Risk Reduction among Women: a Randomized Controlled Trial. *Am J Public Health*, Oct 2008; 98(10):1841-8.
18. Napierala S, Kang MS, Chipato T, Padian N, Van der Straten A. Female condom uptake and acceptability in Zimbabwe. *AIDS Education and Prevention*, 2008; 20(2):121-34.
19. Spizzichino L, Pedone G, Gattari P, Luzi AM, Gallo P, Valli R, Rezza G. The Female Condom: Knowledge, Attitude, and Willingness to Use. The First Italian study. *Ann Ist Super Sanità*, 2007; 43(4):419-24.
20. Ray S, Bassett M, Maposhere C, Manangazira P, Nicolette JD,Machekano R et al. Acceptability of the Female Condom in Zimbabwe: Positive but male centered responses. *Reproductive Health Matters*, May 1995; 3(5):68-79.

21. Ray S, Van de Wijgert, Mason P, Ndowa F, Maposhere C. Constraints Faced by Sex Workers in Use of Female and Male Condoms for Safer Sex in Urban Zimbabwe. *Journal of Urban Health: Bulletin of the New York Academy of Medicine*, December 2001; 78(4):581-92.

22. Seal DW and Ehrhardt AA. Heterosexual men's Attitudes toward the Female Condom. *AIDS EducPrev*, 1999; 11(2):93-106.

23. Trussel J. Contraceptive Efficacy of the Reality Female Condom. *Contraception*, 1998; 58:147-8.

24. Salabarría-Pena Y, Lee JW, Montgomery SB, Hopp HW, Muralles AA. Determinants of female and male condom use among immigrant women of Central American Descent,*AIDS and Behaviour*, June 2003; 7(2):163-74.

25. Warren M PA. Expanding Safer Sex Options: Introducing the Female Condom into National Programmes. *Reproductive Health Matters*, 2003; 11(21):130-9.

26. Peters A, Jansen W, Van Driel F. The female condom: the international denial of a strong potential. *Reproductive Health Matters*, 2010; 18(35):119-28.

27. Haignere CS, Gold R, Maskovsky J, Ambrosini J, Rogers CL, Gollub E. High-Risk Adolescents and Female Condoms: Knowledge, Attitudes and Use Patterns. *Journal of adolescent Health*, June 2000; 26: 392-8.

28. Kerrigan D, Mobley S, Rutenberg N, Fisher A, Weiss E. The female condom. Dynamics of use in Urban Zimbabwe. The Population Council, October, 2000

29. Meekers D. Patterns of Use of the Female condom in Urban Zimbabwe. Population Services International, Research Division (3), 1999; Research Division Working Paper No. 28:21.

30. Chipungu J. Zambian Women Shun Female Condoms. *Global AIDS ProgNewsl*, Oct-Nov 1999 ;58:14-5.

31. Rahlenbeck S and Uhagaze B. Intention to Use Condoms in Rwandan Secondary School Students. *AIDS Care*. January 2004; 16(1):117-21.