



Rate of Use of Female Condoms in Sex Professionals in the City of Mbuji-Mayi, Democratic Republic of Congo

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Abstract

Objectives: The general objective is to contribute to the promotion of the protection of professionals against STIs. **Methodology:** The study is quantitative of descriptive correlational type. Data were collected cross-sectionally using a questionnaire from May 01, 2019 to July 01, 2019 from sex workers living in target neighborhoods. Our study population consists of female sex workers from the above-mentioned neighborhoods, while our sample is 122 obtained on the basis of the inclusion and exclusion criteria. **Results:** Compared to the condom use rate: the level of use is low, because only 42.62% have already used these condoms. Regarding the links between different characteristics of sex workers and the use of female condoms: age between 20 and 29, lack of other work, income less than 50,000 FC, seniority in the work of less than 12 years, the fact of not having suffered from an STI, the fact of not having a partner with STI and the ignorance of a case of death following AIDS, are associated with low use female condoms; because their p (value) is less than 0.05. **Conclusion:** The cases of STIs and unwanted pregnancies in the midst of sex workers are real problems that deserve special attention, since they bear witness to the correct level of condom use. Although increasing in recent years, condom use remains low compared to estimated needs. Likewise, there is still very little applied research focused on the level of con-

dom use among diverse populations, and more particularly among sex workers.

Subject Areas

Public Health, Women's Health

Keywords

Female Condom, Contraception, Sexually Transmitted Diseases, Use Rate

1. Introduction

The female condom is a recent medical device, intended for contraception and for the prevention of infections transmitted by heterosexual way [1].

Its effectiveness depends on the quality of its use. But Pearl's index, or number of unwanted pregnancies observed per 100 women for twelve months, is 5 in optimal use and 21 in current use, against 3 and 14 respectively for the male condom. Some studies, covering only six months, report lower rates of unwanted pregnancies in current use (between 2.6 and 9.5 pregnancies observed per 100 women) [2].

They must be used regularly and correctly to achieve these high levels of protection against HIV. When condoms fail to protect people from STIs/HIV, it is usually due to improper or improper use of these condoms, more than failure of the product [3].

In DRC, specifically in KANANGA, The non-use of condoms by sex workers in the Demba Health Zone remains a major challenge for public health actors. The use of condoms by this group has been estimated at 36%. Appropriate measures targeting the main identified determinants and targeting higher risk groups could effectively reduce the magnitude of the problem in this rural environment [4].

Locally, our finding in healthcare settings shows an increase in STI cases and the occurrence of unwanted pregnancies among sex workers, something that caught our attention to assess the level of use of female condoms by those concerned.

2. Methodology

The study is quantitative, of a descriptive correlational type. It seeks to estimate the level of use of female condoms by sex workers as well as the factors influencing this use in the city of Mbuji-Mayi.

The data were collected cross-sectionally using a questionnaire over a period from 01 May 2019 to 01 July 2019 from sex workers living in the target neighborhoods where a large number of these women reside, namely:

Municipality of Dibindi: Latin Quarter, Monzo Quarter and Ngandajika

Quarter.

Municipality of la Muya: Kajiba and Batetela district.

Municipality of Bipemba: QuarierKanshi and Bipemba.

Our study population consists of female sex workers from the above-mentioned neighborhoods, while our sample is 122 obtained on the basis of the following criteria:

1) Inclusion criteria:

Reside in the target neighborhoods;

Being present on the day of the investigation;

Accepting to participate in the study and answering the questionnaire.

2) Exclusion criteria

Excluded from the study are female sex workers who do not meet the above-mentioned inclusion criteria.

3. Results

3.1. Results of Descriptive Analysis

This **Table 1** shows us that the age groups of 20 - 29 years (36.89%) and 30 - 39 years (37.70%) are the most represented among sex workers, *i.e.* the average age is from 32.8279 ± 8.9227 ; the commune of dibindi leads with 49.18%; 66.49% have no other job; the majority live in a state of celibacy (31.97%) and separated (36.01%); 42.62% are at the primary level; 60.66% have a monthly income below 50,000 FC; 95.90% are used to taking toxic substances such as Hemp, Alcohol, Psychotropics; 69.67% have a seniority of 2 to 11 years in sex work; 19.67% do not belong to a religious confection.

We see in this **Table 2** that all sex workers have already heard of female condoms; 63.93% received the information during the HIV awareness campaign; Only 42.62% have already used these condoms; of this proportion, 71.16% use only occasionally; respectively, they put forward as reasons for use: Means of contraception (07.70%), Means of protection against STIs (44.23%), Means of protection against HIV/AIDS (48.07); 82.69% use only with an occasional partner. Among the proportion who do not use condoms, 61.41% say that it is expensive and less available in pharmacies and 90.98% do not know not the point of sale of these condoms.

Regarding the Characteristics prompting the need for female condom use by sex workers, as shown in **Table 3**, 86.07% have already been tested for HIV; 40.98% admit having suffered from an STI; 17.21% have already had a partner with IST; 90.98% recognize the existence of HIV and its sexual transmission; 44.26% say they have experienced a death from AIDS.

3.2. Results of Bivariate Analysis

In view of this **Table 4**, we note that the association between the socio-demographic characteristics of sex workers and the use of female condoms has revealed the age between 20 and 29 years, the lack of another job, the income

Table 1. Socio-demographic characteristics of sex workers.

Characteristics	Categories	Workforce n = 122	%
Age			
	20 - 29 years old	45	36.89
	30 - 39 years old	46	37.70
	40 - 49 years old	27	22.13
	50 and over	04	3.28
Average age	32.8279 ± 8.9227		
Commune			
	Bimpemba	31	25.41
	Dibindi	60	49.18
	Muya	31	25.41
Occupation			
	Without other work	81	66.49
	Factory Girl	40	32.79
	Official	01	0.82
Marital status			
	Single	32	31.97
	Widow	39	26.23
	Separated	44	36.01
	civil union	07	05.74
Level of study			
	No level	27	22.13
	Primary	52	42.62
	Secondary	38	31.15
	Higher and university	05	04.10
Monthly income			
	Less than 50,000 FC	74	60.66
	50,000 FC and more	48	39.34
Toxic habits			
	Hemp	52	42.62
	Alcohol	60	49.18
	Psychotropics	05	04.10
	Take nothing	05	04.10
Seniority in work			
	0 - 1 year	13	10.66
	2 - 11 years	85	69.67
	12 and over	24	19.67
Religion			
	Catholic	26	21.31
	Protestant	26	21.31
	Revival Church	46	37.70
	I do not pray	24	19.67

Less 50,000 FC, Work tenure under 12 are associated with the low use of female condoms; because their p (value) is less than 0.05.

As shown in **Table 5**, by analyzing the association between knowledge about

Table 2. Knowledge of sex workers on the female condom and its use.

Characteristics	Categories	Workforce n = 122	%
Have heard of the female condom	Yes	122	100.00
	No	000	00.00
Information opportunity	During HIV awareness	78	63.93
	Friends and family circle	14	11.48
	Sexual partner	01	23.77
	Nursing staff	29	00.82
Have already used the female condom	Yes	52	42.62
	No	70	57.38
Frequency of use	Every time you have sex	15	28.84
	Occasionally	37	71.16
Reasons for use	Method of contraception	04	07.70
	Protection against STIs	23	44.23
	Protection against HIV/AIDS	25	48.07
Partner type	Occasional	43	82.69
	Fixed	09	17.31
Reasons for not using the female condom	Expensive and less available in pharmacies	43	61.43
	No prefer	09	12.96
	Unpleasant for me	06	08.57
	Unpleasant for my partner	06	08.57
	Difficult insertion	06	08.57
Knowledge of the point of sale of these condoms	Yes	11	09.02
	No	111	90.98

the female condom, the Characteristics prompting the need for female condom use by sex workers and the level of use, the fact of not having suffered from an STI, the not having a partner with an STI and the lack of knowledge of a case of death following AIDS is associated with the low use of female condoms.

Table 3. Characteristics prompting the need for female condoms to be used by sex workers.

Characteristics	Categories	Workforce n = 122	%
Have already been tested for HIV	Yes	105	86.07
	No	17	13.93
Having suffered from an STI	Yes	50	40.98
	No	72	59.02
Have had a partner with IST	Yes	21	17.21
	No	101	82.79
Recognition of the existence of HIV and its sexual transmission	Yes	111	90.98
	No	11	09.02
Have experienced a case of death from AIDS	Yes	54	44.26
	No	68	55.74

Table 4. Association between the socio-demographic characteristics of sex workers and the use of female condoms.

Characteristics	Use of the female condom		X ²	P (value)	Meaning
	No n = 70 (%)	Yes n = 52 (%)			
Age					
20 - 29 years old	14 (20.00)	38 (73.08)	34.3693	0.0000	S
30 and over	56 (80.00)	14 (26.92)			
Occupation					
Without other work	12 (17.14)	29 (55.79)	19.9508	0.0000	S
With additional work	58 (82.86)	23 (44.21)			
Level of study					
Without level And Primary	39 (55.71)	40 (76.92)	5.8803	0.0153	S
Secondary and Higher	31 (44.29)	12 (23.08)			
Monthly income					
Less than 50,000 FC	10 (14.29)	37 (72.55)	42.1613	0.0000	S
50,000 FC and more	60 (85.71)	14 (27.45)			
Toxic habits					
Take the substances	69	51	0.0452	0.8315	NS
Do not take	01	01			
Seniority in work					
0 - 11 years	49 (70.00)	49 (94.23)	11.0856	0.0008	S
12 and over	21 (30.00)	03 (05.77)			
Knowledge of the point of sale of these condoms					
No	66 (94.29)	45 (86.54)	2.1829	0.1395	NS
Yes	04 (05.71)	07 (13.46)			

4. Discussion

In our research, the results on the socio-demographic characteristics of sex workers point out that the age group of 20 - 29 years (36.89%) and 30 - 39 years

Table 5. Association between knowledge about STIs, the female condom and its use by sex workers.

Characteristics	Use of the female condom		X ²	P (value)	Meaning
	No N = 70 (%)	Yes N = 52 (%)			
Knowledge of the point of sale of these condoms					
No	66 (94.29)	45 (86.54)	2.1829	0.13954	NS
Yes	04 (05.71)	07 (13.46)			
Have already been tested for HIV					
No	08 (11.43)	09 (13.93)	0.8599	0.3537	NS
Yes	62 (88.57)	43 (86.07)			
Having suffered from an STI					
No	32 (45.71)	40 (76.92)	12.0147	0.0005	S
Yes	38 (54.29)	12 (23.08)			
Having a partner with IST					
No	53 (75.71)	48 (92.31)	5.7649	0.0163	S
Yes	17 (24.29)	04 (07.69)			
Recognition of the existence of HIV and its sexual transmission					
No	07 (10.00)	04 (07.69)	0.1937	0.6598	NS
Yes	63 (90.00)	48 (92.31)			
Having experienced a death from AIDS					
No	28 (40.00)	40 (76.92)	16.4875	0.00005	S
Yes	42 (60.00)	12 (23.08)			

(37.70%) are the most represented among the workers of sex, with an average age of 32.8279 ± 8.9227 ; the commune of Dibindi leads with 49.18%; 66.49% have no other job; the majority live in a state of celibacy (31.97%) and separated (36.01%); 42.62% are at the primary level; 60.66% have a monthly income below 50,000 FC; 95.90% are used to taking toxic substances such as Hemp, Alcohol, Psychotropic drugs; 69.67% have a seniority of 2 to 11 years in sex work; 19.67% do not belong to a religious confection.

In view of these results, this age group represents the period when certain women, after having missed marriage at the age of less than 30, prefer in this state of despair, food in a condition where they must receive men to the gap to provide for certain needs of life. The commune of Dibindi by its proximity to the big market of the city is a preferable environment for these women in order to facilitate their sale of alcohol and other intoxicating substances and trafficking with different customers.

Contrary to our results, in a study in Cameroon by Sobze Martin Sanou *et al.*, [5], the average age was 22.6 years [σ : 5.4], with 77.23% between 15 - 24 years;

76.6% had a university education, compared to 21.7% and 1.7% at the secondary and primary levels, respectively. Singles were in the majority (95.3%), followed by married couples (3%). 76% use condoms, compared to 24% who do not. Regarding the knowledge of sex workers on the female condom and its use, we found that all sex workers have already heard of female condoms; 63.93% received the information during the HIV awareness campaign; only 42.62% have already used these condoms; of this proportion, 71.16% use only occasionally; respectively, they put forward as reasons for use: Means of contraception (07.70%), Means of protection against STIs (44.23%), Means of protection against HIV/AIDS (48.07); 82.69% use only with an occasional partner.

In Togo, according to Tambashe BO, *et al.*, [6] most sex workers (TS) (96%) use condoms less, because only 23% of TS and only 4% of truck drivers declared having used the female condom at some point in their sex life. Although the use of the female condom is low, the intention to use it in the future reaches significant proportions both among TS (82%) and among truckers (65%) according to the USAID sheet [7].

Our research also revealed that among the proportion who do not use condoms, 61.41% say that it is expensive and less available in pharmacies and 90.98% do not know the point of sale of these condoms; the characteristics prompting the need for the female condom by sex workers make us notice that 86.07% have already been tested for HIV; 40.98% admit having suffered from an STI; 17.21% have already had a partner with IST; 90.98% Acknowledge the existence of HIV and its sexual transmission; 44.26% say they have experienced a death from AIDS.

Compared to the study carried out in Central America by Tambashe BO, Talnan E., Sala-Diakanda F., Djangone R., Ametepe F. [8] on the introduction of female condoms to prostitutes, the investigators met on several occasions prostitutes, after providing them with information on the female condom and how to use it, and after distributing samples to them, they explain that the advantages reported by the women were important lubrication, the size of the condom that accommodates to all penis sizes, the comfort felt by the partners after several uses, and the better resistance than the male condom. They also said they felt better protected against STIs and pregnancy than with a male condom. The reported disadvantages were size (but this time in its unsightly appearance), initial physical discomfort (which disappeared with experience), and the ability to scare their customers with the device. Women recommended training to insert the condom several times alone, before using it with a partner according to Mack *et al.* [9].

5. Results of Bivariate Analysis

The association between the socio-demographic characteristics of sex workers and the use of female condoms had revealed in the analyses that the age between 20 and 29 years, the lack of another job, the income less than 50,000 FC, Seniority in work of less than 12 years are associated with low use of female

condoms; because their p (value) is less than 0.05.

While the association between knowledge about the female condom, the characteristics prompting the need for female condom use by sex workers and the level of use, the fact of not having suffered an STI, the fact of not having had a partner with an STI and the lack of knowledge of a case of death from AIDS is associated with the low use of female condoms. For his part, Ngamini Ngui, A [10] studied the Determinants of condom use among young people in Côte d'Ivoire, on the sample of 4,136 people (81.21% men and 18.79% women) aged between 15 and 24 years old. The results show that the prevalence of condom use is very low in this sample (20%). Women (24.1%), the very wealthy (31.2%), academics (57%), senior managers (60%) and city dwellers (24.4%) are the heaviest condom users.

Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

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