

Knowledge, attitudes & barriers to condom use among female sex workers and truck drivers in Uganda: a mixed-methods study

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Abstract

Background: There is limited documentation on knowledge, attitudes and barriers to condom use among female sex workers (FSWs) and truck drivers (truckers).

Objective: To explore knowledge, attitudes and barriers to condom use among FSWs and truckers operating along major transport corridors in Uganda

Methods: Structured questionnaires were administered to explore FSWs' and truckers' knowledge of and attitudes towards condom use among 259 FSWs and 261 truckers. Qualitative data were collected on barriers to condom use using focus group discussions. Quantitative data were analyzed using SPSS while qualitative data were audio-recorded, transcribed and thematically analyzed.

Results: Condom knowledge was high with 97% of FSWs and 95% of truckers agreeing with the statement, "*using condoms properly and consistently reduces risk of HIV infection*". Attitudes towards condom use were generally favorable with 91% of FSWs and 82% of truckers agreeing with the statement, "*condom use is the best method of HIV prevention*". Qualitative findings show that poverty, refusal to use condoms by male partners, alcohol use before sex and beliefs that condoms '*kill the mood for sex*' remain key barriers to consistent condom use.

Conclusions: Consistent condom use among FSWs and truckers is still hampered by economic and relationship factors.

Key words: knowledge, attitudes, barriers, condom use, FSWs, truckers

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Introduction

HIV prevention programs among female sex workers (FSWs) have achieved major progress both in increasing condom use in sex work and in reducing associated HIV infections. In 27 of 87 countries included in the UNAIDS global report on HIV/AIDS for 2010, data indicate that 90% or more of FSWs report condom use with their last client¹. Despite this progress, consistent condom use among FSWs remains low in most settings, with the proportion reporting 100% condom use reported at 26.8% in Kenya and 18.9% in Uganda². The prevalence of HIV and other sexually transmitted infections (STIs) among FSWs remains high in most settings, with HIV prevalence of 33-37% reported among Ugandan FSWs^{3,4}. Studies show that truckers

engage in sex with multiple sexual partners along the transport routes that they ply, usually without using condoms^{5,6}. As a result, HIV prevalence among truckers is equally high, ranging from 10% in Nigeria⁶, 26% in Kenya⁷ and 56% among truckers in Southern Africa⁸.

Prior studies on condom use and other sexual behaviors of FSWs and truckers have been largely quantitative in nature¹⁰⁻¹⁴ and conducted outside sub-Saharan Africa¹⁶⁻¹⁷, with limited qualitative assessments of the knowledge, attitudes and barriers to condom use in sub-Saharan African settings. At the moment, there is hardly any study that provides detailed qualitative information on the knowledge, attitudes and barriers to condom use among FSWs and truckers in Uganda despite evidence showing that FSWs contribute 11% of new HIV infections¹⁸ and truckers form a greater proportion of their clientele¹⁹.

We employed a mixed-methods approach to collect data on knowledge, attitudes and barriers to condom use among FSWs and truckers as part of a larger study aimed at providing information necessary for the design of a behavior change

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communication (BCC) toolkit for use in addressing HIV/STI risk-taking behaviors among FSWs and truckers operating along major transport corridors in Uganda¹⁴.

Methods

Study design

This was a cross-sectional study that employed a mixed-methods approach to data collection, using both qualitative and quantitative methods of data collection.

Study site

Details about the main study have been described previously¹⁴. In brief, the study was conducted at 12 hotspots on two major transport corridors (the northern corridor, running from Busia/Malaba on the Uganda-Kenya border to Katuna on the Uganda-Rwanda border; and the Kampala-Bibia transport route that commences from Kampala Capital City to Bibia on the Uganda-South Sudan border) between November – December 2008. A hotspot was defined as an area frequented by female sex workers and truckers and which is usually characterized by high levels of illicit sex¹⁴. The study protocol was reviewed and approved by a technical working group constituted by the Uganda AIDS Commission and the International Organization for Migration.

Data collection

Quantitative data was collected as part of a larger study conducted among 261 truckers and 259 FSWs¹⁴. Participants were identified through local contact persons and linked to the study teams. The local contact persons were members of the community who had regular interaction with FSWs and truckers, or were patrons of bars and other entertainment venues that FSWs and truckers usually frequented. Participants provided written informed consent.

Structured questionnaires were administered to explore FSWs' and truckers' knowledge of condom use as an HIV prevention strategy and attitudes towards condom use for HIV prevention. Questions were stated in form of statements to which participants agreed or disagreed, based on a five-point Likert scale ranging from 1=*Strong agree* to 5=*Strongly disagree*. These statements included, '*using condoms correctly and consistently reduces the risk of HIV infection*', '*condoms have pores through which HIV can pass*' and '*condoms kill the mood for sex*', among others (Table

1). Quantitative data collection preceded qualitative data collection, based on a QUANT-QUAL priority sequence model suggested by Morgan²⁰.

In addition to quantitative data, qualitative data were collected to help the research team to place the quantitative findings into context and also to explain emerging trends in the quantitative data. Qualitative interviews were conducted with selected FSWs and truckers who had not participated in the quantitative survey using focus group discussions (FGDs). Individuals who participated in qualitative data collection were identified using local contact persons as described above. Single-sex FGDs were conducted at agreed venues, separately for truckers and FSWs. Participants gave verbal consent to participate in the qualitative component of the study and permission for the research team to tape-record the sessions which were moderated by a research officer assisted by a note taker. Each FGD was composed of between 8-12 participants.

All FGDs were conducted using an FGD guide that explored pre-determined broad themes including barriers to condom use as an HIV prevention method. FGDs lasted between 1-2 hours. No compensation for time was provided but participants were provided with light snacks during the data collection process. All interviews were audio-taped and transcribed verbatim. Twenty four (24) FGDs were held with 207 individuals (96 truckers and 111 FSWs).

Data analysis

Quantitative data were entered into MS Excel and analyzed using SPSS version 12. We computed frequencies and percentages pertaining to knowledge of condom use as an HIV prevention strategy and attitudes towards condom use separately for FSWs and truckers. Frequencies and percentages were computed based on each statement read out to the participants. Participants' level of agreement with each statement was categorized as: "Agreed/strongly agreed", "disagreed/strongly disagreed", and "unsure".

Qualitative data were transcribed verbatim and entered into an MS Word processing computer program and thematically analyzed using content analysis techniques. Initially, printed copies of transcribed text were read separately by each author while assigning codes to relevant sections of the transcripts. We then met to compare and discuss any emerging themes, and to decide which of these

themes should be considered for detailed analyses. This process continued until no new themes emerged. After the initial coding, we generated a list of relevant themes (i.e. poverty, refusal to use condoms by sexual partners, alcohol use before sex, and condoms kill the mood for sex) that guided additional analyses. Using an MS Word processing computer program, we located all pre-coded sections of printed transcripts that pertained to each theme, copied and pasted them on a separate page, and grouped them under relevant themes in preparation for paper writing.

Results

Two hundred fifty nine FSWs and 261 truckers were interviewed for this study. FSWs were generally younger (73% of FSWs were aged <30 years as opposed to 31.1% of truckers), unmarried (52% of FSWs were divorced/separated/widowed as opposed to <10% of truckers) and uneducated (36% of FSWs had secondary or higher education as opposed to 56.4% of truckers) compared to truckers. Ninety seven per cent of FSWs and 53% of truckers were Ugandans.

Knowledge of condom use as an HIV prevention strategy

Knowledge of condom use as an HIV prevention strategy was high. Nearly all FSWs (97%) and truckers (95%) agreed with the statement, “using condoms correctly and consistently reduces the risk of HIV infection” (table 1). In addition, seventy per cent of FSWs and 72.4% of truckers disagreed/strongly disagreed with the statement, “condoms have pores through which HIV

can pass”. However, up to 30% of both FSWs and truckers were unsure or agreed/strongly agreed with the statement that condoms have pores through which HIV can pass.

Attitudes towards condom use

Attitudes towards condom use were generally favorable with 91% of FSWs and 82% of truckers agreeing with the statement, “condom use is the best method for HIV prevention”. However, one-third of truckers (34%) and 28% of FSWs agreed/strongly agreed with the statement, “condoms kill the mood for sex”. In addition, 18.4% of truckers and 6.6% of FSWs agreed/strongly agreed with the statement, “I don’t like to use condoms myself”.

Barriers to condom use

Our findings show that poverty, male partner refusal to use a condom, alcohol use before sex, and beliefs that condom use kills the mood for sex remain key barriers to consistent condom use among FSWs and truckers. Poverty was manifested as ‘lack of money’ to ‘look after my family’ or meet one’s basic needs, including food. Poverty was cited as a driving force for FSWs to engage in unprotected sex for money even in situations where they knew that they would acquire HIV or other STIs in the process (“I don’t mind if he kills me”). The need for survival overrode the normative expectation that a woman in her menses should not have sex during this period. The following quotations illustrate the aspect of poverty and its effect on condom use:

“...you could be in a bad situation yet you are sick and on medication. At the same time you may not

Table 1: Knowledge of and attitudes towards condom use among truckers and FSWs

Statement	FSW (n=259)			Truckers (n=261)		
	Agree/ Strongly agree (%)	Disagree/ Strongly disagree (%)	Unsure (%)	Agree/ Strongly agree (%)	Disagree/ Strongly disagree (%)	Unsure (%)
Condoms have pores through which HIV can pass	16.6	70.2	13.2	11.5	72.4	16.1
Using condoms properly and consistently reduces risk of HIV infection	96.5	2.7	0.8	95.0	3.8	1.1
Condom use is the best method of HIV prevention	91.1	8.1	0.8	82.0	14.9	3.1
Condoms kill the mood for sex	28.3	66.7	5.0	34.1	57.9	8.0
I don’t like to use condoms myself	6.6	93.0	0.4	18.4	80.8	0.8

have anything to eat... you look for a man who can help you. Then that man will give you conditions... if you are going to have sex with him with a condom he will give you Uganda Shillings (UGX) 2,000/=, then he says that if it is without a condom he will give you 20,000/=. Because you can't help yourself, there is no way you can leave UGX 20,000/= and go for UGX 2,000/=" (FSWs, Malaba)

"...the only reason why they do it is because of poverty. Most of us here are using family planning [pills], so you find that one can spend two weeks bleeding; without anything to eat, what do you expect? You go, and have sex for money. When a man sees blood on the sheets after intercourse, you also pretend as if you didn't know or as if the periods have only started from that point" (FSWs, Lukaya)

FSWs indicated that male partners normally give excuses for not using condoms; citing failure to maintain an erection when they put on condoms, while truckers cited the need to *"please the lower part of the body"* as one of the reasons why they normally don't like to use condoms, as indicated in the following quotations:

"Most men refuse to use condoms. He may even send you to buy a condom, or even put two packets [of condoms] on the table to assure that he is going to use condoms. But when you reach the room, he locks the door and keeps the keys—and then asks: 'what does the condom mean?'" (FSWs, Lukaya)

"...you drive a vehicle from here up to Sudan, there are many potholes, they hit you ... if you are back to Malaba, there is need to make your lower body happy because you have been sitting for a long time and the vehicle has over hit you in the potholes...the moment you get a woman you don't want to use a condom" (Truckers, Malaba)

FSWs and truckers are regular patrons at drinking places, including bars and hotels. Alcohol consumption, particularly before sex, impairs one's judgment with regard to having protected sex, resulting in many instances of no or inconsistent condom use. Truckers reasoned that the sexual stimulation that alcohol arouses (*"all you think about is sex and whichever woman crosses your way, you don't care"*) and the presence of female bar tenders who dress provocatively, probably to lure them into having sex

with them, makes them (truckers) engage in unprotected sex following alcohol consumption:

"What I have noticed is that most of us truckers take alcohol as a way of spending our leisure time. When we get drunk, we start thinking about sex... You cannot even think about a condom when you are drunk. All you think about is sex and whichever woman crosses your way, you do not care" (Truckers, Ruti)

"The first thing is alcohol, every time a man gets drunk, he does not remember anything about the condom... The dressing of the ladies who work in the bars and restaurants do attract men and if the men are drunk they forget to put on condoms" (Truckers, Malaba)

As indicated in Table 1, one-third of both FSWs and truckers agreed with the statement that condoms can *'kill the mood for sex'*. This aspect was confirmed by both truckers and FSWs when it was subjected to qualitative inquiry:

"...for me the condom is not good. It kills the mood for sex. I don't want it completely. I use a condom just to protect myself from HIV and STI but I don't enjoy sex with a condom. It is like a telephone call, you don't see the other person [receiving the call] physically but you keep talking." (Truckers, Lukaya)

"It [condom use] kills the appetite, you become dry...say for four customers, two you have the mood, for the other two, it is just the money...you have no mood" (FSWs, Lugazi)

Discussion

In this study of condom knowledge, attitudes and barriers to condom use among FSWs and truckers in Uganda, we found that 97% of FSWs and 95% of truckers agreed with the statement, *'using condoms properly and consistently reduces the risk of HIV infection'* while 93% of FSWs and 81% of truckers disagreed with the statement, *'I don't like to use condoms myself'*. These findings suggest high levels of knowledge about condom use as an HIV prevention strategy and favorable attitudes towards condom use for HIV prevention. However, consistent condom use among FSWs and truckers is low¹⁴, and this is largely explained by economic and relationship factors including poverty, refusal by male partners to use condoms, alcohol use before sex and beliefs that condoms kill the mood for sex. These barriers

continue to hamper effective use of condoms for HIV prevention, and explain why, despite high levels of knowledge of condom use as an HIV prevention strategy, both FSWs and truckers continue to engage in unprotected sex²¹.

Previous studies have identified a number of factors that affect condom use among female sex workers. In a study of the perceptions and experiences of FSWs in Namibia, Fitzgerald-Husek et al.²² found that condom use prospects depended on the level of intimacy with partner, and the woman's financial standing at the time, among other factors. A study in Kinshasa found that about a quarter of sex workers reported having unprotected sex for extra money, charging up to 3.5 times more for unprotected sex²³. In Pretoria, South Africa, about half the sex workers reported having been too intoxicated by recreational drugs to negotiate condom use²⁴. These findings suggest a need for providing economic alternatives for women who are engaged in sex work so as to increase their economic independence and reduce their dependence on men for money.

We found that while FSWs may want to use condoms for protection against HIV and other STIs, sometimes, their wishes are thwarted by men's refusal to use condoms. Similar findings have been reported elsewhere. In a study in Ghana, women cited client refusal (73%) and client brutality (43%) as reasons for not using condoms²⁵. About one in five sex workers in Antananarivo, Madagascar, reported that in the past month they had wanted a client to use a condom but were too afraid to ask²⁶. Nearly three quarters of sex workers in that study also reported having had sex with a client who refused their request for condom use, and few believed that their co-workers would decline a client who rejected condoms²⁶. These findings suggest a need to promote the use of female condoms that women can resort to in the event that their male partners refuse to use [male] condoms²⁷.

Our findings further show that alcohol use before sex can increase FSWs' and truckers' engagement in unprotected sex. Similar findings have been reported elsewhere¹⁵⁻¹⁷. In a study conducted among 454 establishment-based female sex workers in Guangxi, China, Wang et al.¹⁵ found that alcohol use was associated with unprotected sex and increased risk of STIs. In another study of alcohol use and sexual risk behaviors among 211 HIV-positive female sex workers and 205 HIV-positive male clients of FSWs in India, Samet et al.¹⁶ found that

men's use of alcohol was significantly associated with inconsistent condom use in the past year. Collectively, these findings suggest that both FSWs and truckers remain at an elevated risk of HIV and STI infections, calling for interventions aimed at reducing their vulnerability by addressing identified barriers^{17,28}.

Our study had some limitations that are worth noting. We conducted this study as part of a large formative study aimed at generating data needed for designing a BCC toolkit for implementing partners along transport corridors in Uganda. Thus, the qualitative component of the study was done as an additional data collection strategy rather than an independent qualitative study. Nevertheless, qualitative findings provided additional information that was necessary in designing a BCC toolkit for implementing partners along major transport corridors which is currently under use in Uganda.

Also, since participants were selected using local contact persons, it is likely that these contact persons mobilized and successfully invited people who were more known to them than those who were not. If this was the case, our ability to explore FSWs' and truckers' perspectives from across different categories of FSWs and truckers would be limited as well as our ability to generalize the findings to all truckers and FSWs in Uganda. However, since qualitative findings tend to be bound by context and time²⁹, even if these findings may lack external generalizability, they can still be applicable within the settings studied. It is therefore likely that our findings on knowledge, attitudes and practices with regard to condom use can be extended to other trucking and FSW populations in Uganda.

Conclusion

Our findings suggest that while FSWs and truckers are knowledgeable about condoms as an HIV prevention method and have favorable attitudes towards their use, economic and relationship factors continue to hamper consistent condom use among these populations. These findings suggest a need for interventions that address condom use barriers as well as improve economic independence of FSWs as part of condom promotional efforts in Uganda.

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Conflict of interest

One of the authors (BNS) works with the institution that funded the study.

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