



PREVALENCE OF CONDOM USE AND ASSOCIATED FACTORS AMONG FEMALE SEX WORKERS IN KARACHI, PAKISTAN

Atif M.¹, Khalil R.², Guls³, Bilal B.⁴

¹Department of Community Health Sciences, Jinnah Medical and Dental College, Karachi, Pakistan; ²Department of Family and Community Medicine, College of Medicine, Qassim University, Saudi Arabia; ³Department of Community Medicine, Baqai Medical University, Karachi, Pakistan; ⁴Department of Medicine, Inaya Medical College, Riyadh, Saudi Arabia.

ABSTRACT

As they have multiple sex partners, female sex workers are at a higher risk of sexually transmitted infections, including human immunodeficiency virus. Consistent and correct use of male condoms can reduce this risk. However, condom use among female sex workers is a complicated issue.

Objectives: The purpose of this study was to determine the prevalence of condom use and to evaluate the factors associated with its use among female sex workers in Karachi, Pakistan.

Methodology: A mixed method study was conducted in Karachi, Pakistan. Quantitative data were collected from 200 female sex workers (FSWs) through a structured questionnaire, while Qualitative methods comprised 40 in-depth interviews of every 5th female sex worker participating in the cross sectional survey, and Focus-group discussions. The information on socio-demographic characteristics, prevalence of condom use, factors associated with use of condoms, knowledge and awareness about STIs and HIV/AIDS was gathered. The data were analyzed using SPSS 18 and frequencies with percentages were calculated for all qualitative variables.

Results: Average age of the participants was 27.9 ± 6.5 years. More than one third had no formal education with 85% reporting a monthly income of more than 8000 PKR [Mean; 16615 ± 10867 PKR]. Nearly half (52%) had spent 4 or fewer years in sex work. The average number of clients per day was 3 ± 1.5 per sex worker. FSWs attached to a brothel were 6 times more likely to use a condom in comparison with street based FSWs. Whereas, FSWs aged younger than 35 years were 2.7 times more likely to use a condom in comparison to older FSWs. Factors found to be associated with not using a condom included being in the sex work for more than 05 years, having sex with non-paying partners, alcohol use, non-availability of condoms, not being associated with a service delivery program and lack of knowledge that condoms can protect against HIV.

Conclusion: The study revealed that the prevalence of condom use among female sex workers was low. FSW's lack of negotiating power for condom use was a major reason for its non-use. Other factors associated with not using condoms included not being attached to a brothel, being over 35 years old, more than 05 years in sex work, having sex with nonpaying partners, use of alcohol, unavailability of condoms, no exposure to a service delivery program and no knowledge about condom being protective against HIV.

Key Words: Condom use, Female sex workers, Commercial sex workers

INTRODUCTION

Sexually transmitted diseases (STDs), including HIV/AIDS, are a major public health problem.¹ Globally, there were about 36.9 million people living with HIV at the end of 2014.² Young women aged 15 to 24 years are 1.6 times more likely to be living with HIV/AIDS than young men.³ Among them, female sex workers (FSWs), being a high-risk group, bear

a disproportionately large burden of HIV infection worldwide.¹

Research data shows that when used consistently and correctly, male condoms protect both partners from STDs, including HIV.^{4,5} Condom effectiveness for STD and HIV prevention has been demonstrated by both laboratory and epidemiologic studies.^{6,7} Evidence of condom effectiveness

Corresponding Author:

Dr. Rehana Khalil, Assistant Professor, Unaizah College of Medicine, Qassim University, KSA
Mob: +966-582238100; E-mail: dr.r.noman@gmail.com

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is also based on theoretical and empirical data regarding STD transmission, the physical properties of condoms, and the protection provided by condoms.^{8,9,10,11,12} It has been estimated that condoms have prevented around 50 million new HIV infections since the onset of the epidemic.¹³

The control of sexually transmitted diseases, including HIV, among sex workers and their clients in urban areas in developing countries, is considered a valuable and cost-effective intervention to reduce the spread of HIV.¹⁴ High risk populations include female sex workers as they have multiple sex partners and engage in unsafe sex. However, condom use among female commercial sex workers is a complicated issue. Experiences from research conducted with FSWs have reported that the choice of using a condom is dependent on several socio-economic, personal and work related factors associated with the sex worker.¹⁵ These factors can act as a barrier to condom use and lead to unsafe sexual practices among sex workers putting them, their clients and the population at large at a risk of getting infected, especially with HIV, which can lead to significantly higher rates of HIV infection within a country.¹⁵

Pakistan, like many other countries in South Asia, has a well-developed commercial sex industry, which is illegal, highly complex and involves a large number of people in a variety of sites.¹⁶ Pakistan's sex industry is very poorly documented and operates largely underground because it is illegal.¹⁷ Majority of studies conducted in Pakistan, together with anecdotal evidence are suggestive that the sex industry has and is moving out of traditional sites and concentrations in red light areas and becoming dispersed throughout cities, increasingly operating in private houses where they may use mobile phones or have managers and/or pimps who act as clearly defined authorities and as intermediaries between the sex worker and client.^{15,16,17} To effectively address the HIV/AIDS epidemic among sex workers and their clients a multi-faceted approach is required. With HIV/AIDS beginning to change its course from a "low-prevalence epidemic" to "concentrated epidemic" in Pakistan, FSWs form one of the core groups which could play a major role in spreading the virus among the high risk groups as well as to the general population. In 2011, the HIV prevalence was estimated to be 0.63% among FSWs in Pakistan.¹⁶ This is, at best, a very conservative figure as it is difficult to accurately measure the size of the sex industry in Pakistan because of its hidden nature and wide geographic distribution of FSWs.¹⁵ However, it is important to explore the unsafe sexual behaviors in high risk groups such as FSWs to inform policy and programs for STI/HIV prevention. Thus, the purpose of this study was to determine the prevalence of condom use and the factors associated with its use among female sex workers in Karachi, Pakistan.

SUBJECTS AND METHODS

A mixed method approach incorporating both a cross sectional survey followed by qualitative techniques were used among female sex workers during March 2015 to June 2015 in Gulshan-e-Iqbal town, Karachi, Pakistan. A WHO sample size calculation software was used to calculate the required sample size. A minimum sample size of 200 was required while taking 5% bound on error of estimation, 95% confidence level, and assuming 50% prevalence of condom use among sex workers. 100 street based and 100 brothel based female sex workers were selected conveniently through a chain referral process and interviewed for the study.

For qualitative assessment, in-depth interviews and focus group discussions were conducted with every 5th FSW who participated in the cross sectional survey. Principal Investigator herself conducted face-to-face interviews and data was recorded on a pre-coded questionnaire. A total of 40 in-depth interviews were conducted and each interview lasted about 60 to 90 minutes. All the questionnaires were field edited after each interview to check for legibility, missing fields and any illogical responses. SPSS version 18 was used to analyze the data. In order to identify any type of errors during data entry, 5% of the fields were randomly checked against the physical questionnaires. Mean with standard deviation was calculated for age (in years) while frequency with percentages was calculated for qualitative scale variables such as factors associated with use/non-use of condoms, and knowledge and awareness about STIs and HIV/AIDS. The "use of a condom at the last sexual intercourse" was the dependent variable for the study.

Focus Group Discussions

Focus Group Discussions with 'hard to reach' population of female sex workers and their managers is a very valuable technique to obtain insightful and complex information. A total of three focus group discussions were held. Groups comprised six to eight participants, ideal group range being six.

A semi-structured, open-ended focus group guideline/ questionnaire was developed for conducting the sessions. All focus groups followed the same discussion guide that allowed comparisons between various responses of the different groups. The guideline contained eight open-ended questions, designed to discuss effusively during time period of two hours with each group. However, the respondents were allowed to converse for more time, till it was considered appropriate and constructive for generating data.

The notes were taken in the local language, in order to retain the literal sense of the responses. The notes were later expanded, immediately after the focus group concluded.

ETHICAL CONSIDERATIONS

Informed verbal consent was obtained prior to the interview. Participation was voluntary and no coercion was used in the data collection process. They were fully informed of the nature of the study and the use of the data. They were free to withdraw from the interview at any time or refuse to answer any particular question. Participants were also ensured of confidentiality. No personal identifying information was obtained for any part of the investigation. Participants were offered information and referral to health and social services available in the community.

RESULTS

A total of 200 sex workers comprising 100 street based and 100 brothel based female sex workers(FSWs) participated in the cross-sectional survey. 144 (72%)FSWs interviewed were full time female sex workers(FSWs), while 56 (28%) reported that they were involved in sex work on a part time basis.

Average age of the participants was 27.9 ± 6.5 years. Nearly half (99) 49.5% of the female sex workers(FSWs) were less than 25 years of age. 85% of the female sex workers(FSWs) had a monthly income of more than Rs.8000 income [Mean; 16615 ± 10867 PKR per month].

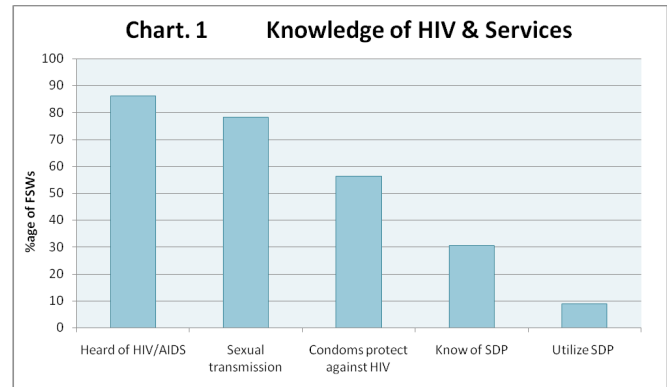
Prevalence of condom use was defined as the use of a condom on the last sexual intercourse. Based on this definition, 116 (58%) female sex workers(FSWs) had not used a condom, while 84 (42%) reported condom use during the last sexual intercourse.

172 of 200 (86%) respondents had heard about HIV/AIDS. 78% of the respondents knew that HIV is transmitted through sex and 56% knew that condoms can prevent its transmission. (see Chart 1)

More than half (104) 52% of the female sex workers(FSWs) were into this profession since less than 5 years, whereas (54) 27% had 5 to 8 years of experience. About 55% of the female sex workers(FSWs) reported 30 or more clients in the last one month. 62% of the female sex workers(FSWs) got clients without involvement of a pimp, whereas 44% said they had to share the money with either a pimp or an auntie. Female sex workers(FSWs) attached to a brothel were 6 times more likely to use a condom in comparison with street based female sex workers(FSWs).

Almost 85% participants had their last sexual intercourse with a paying customer. About 42% used alcohol during their

last sex encounter. Duration of last sex was up to an hour in (152) 76% subjects, 36 (18%) spent 2 to 3 hours, while 12 (6%) of the respondents reported that they were paid for a full night.



Regarding service delivery programs, 31% respondents had heard about some services provided for sex workers and 10% of them had utilized these services at least once (see Chart 1)

90% of the female sex workers(FSWs) who were using condoms reported that they could easily access condoms, whereas only 33% of the non-users had access to condoms. While about 44% of the non-users felt no need to use a condom.

The in-depth interviews and focus-group discussions correlated various factors associated with condom use among female sex workers. As a proxy to determine the negotiating power of the study subjects, they were asked if they could convince clients for the use of a condom. The responses were categorized into three themes;

- They could easily convince clients to use condoms,
- They had some difficulty in convincing clients to use condoms
- They were unable to convince their clients for using a condom,

27% of the female sex workers(FSWs) reported that they were unable to convince the client to use a condom.

Despite availability of condoms, the in-depth interviews revealed various reasons for not using them. The main reason for not buying condoms was that the female sex workers(FSWs) did not feel safe while carrying condoms on their person. Some expressed the fear of being stigmatized or harassed if found buying or carrying condoms.

Table 1 lists the consequences of insisting condom use on the FSW's part, the most common being the fear that the client would get angry. 35% of the participants considered that the female sex workers(FSWs) had no say in deciding whether to use a condom or not.

Table 1

Consequences if a FSW insists on using a condom n= 40			Consequences if a FSW refuses to use condoms n= 40		
Responses	Number of respondents	%	Responses	Number of respondents	%
Client will get angry	26	65%	Client will not mind at all	20	50%
Client will complain to the operator	12	30%	He will get happy	8	20%
Client will go to another girl	18	45%	The client will get angry	12	30%
It is the client's choice	10	25%	The client will ask for another girl	2	5%
Some clients get convinced while others do not	4	10%	Do not know	8	20%
Operator will get angry	4	10%	Girl's wishes do not matter	14	35%
Do not know	4	10%	-	-	-
Total	40		Total	40	

Table 2 lists the various reasons associated with the FSW agreeing or not agreeing to use a condom. Majority of the FSWs wanted to use a condom to avoid pregnancy, while the most common reason to refuse condom use was the fear that it causes allergy and pain.

Table 2

Reasons a FSW wants to use condoms			Reasons a FSW refuses to use condoms		
Responses	Number of responses	%	Responses	Number of responses	%
Avoid getting pregnant	32	80%	Fear of allergy and pain	12	30%
Protect themselves from getting disease	12	30%	Some do not like condoms	8	20%
Protect themselves from getting AIDS	4	10%	If the client is not willing to use condom	4	10%
Facilitates intercourse during menstrual period	4	10%	Girl has had operation, or she is using pill	8	20%
Feel relaxed with condom	2	5%	Condom use causes discharge	2	5%
Prevents getting filthy during intercourse	10	25%	Condom use causes rashes	2	5%
During oral sex	4	10%	If girl has more than 1 client at a time	10	25%
Prevents the transfer of germs	2	5%	Condom is to be bought every time	2	5%
For good health	2	5%	Girl does not know its significance	2	5%

DISCUSSION

This study aimed to assess the prevalence of condom use among FSWs and factors associated with its use.

Less than half (42%) of the participating FSW reported using a condom during their last sexual intercourse. This was despite the fact that a majority of them were aware of HIV transmission through sexual route. Studies from Uganda¹⁸ and Ethiopia¹⁹ have also found that despite high levels of knowledge about using condoms as protection against HIV, consistent condom use among FSWs was low. Another study from Indonesia reported that only 12% FSWs reported using a condom although 78% knew the benefits of using one.²⁰ It seems that just having knowledge did not always translate into safe sexual behavior.

The study participants were of a unanimous opinion that all girls in commercial sex work knew about condoms and had used them at some occasion during sex work. However, only one third of the participants had heard of health service delivery programs and a mere 10% had actually ever used such services. Sex workers comprise a highly stigmatized and marginalized group in our society,¹⁶ which makes them highly vulnerable to HIV infection by decreasing their likelihood of accessing and participating in any health or social services for STD and HIV prevention. Therefore, FSWs may not be able to take advantage of health services even where they are available. A study in India has reported that exposure to an HIV intervention for FSWs resulted in a higher prevalence of condom use.²¹ Another study from Pakistan¹⁶ also found that exposure to service programs was associated with increased prevalence of condom use.

FSWs reported that condoms were easily available, but they expressed fear of being stigmatized if someone caught them buying or carrying condoms. Especially if a policeman checked their bag it could mean either an arrest or losing a share of their income. Moreover, most of them also feared that their families might find out about their profession if condoms were found in their possession. Thus even though availability of condoms was not a problem per se, purchasing them and carrying them was.

Although a fair proportion of the respondents knew that condoms protect them from contracting any disease from their clients, this did not appear to be a major reason for condom use. The main reason quoted for using a condom was to avoid pregnancy. The consistency of condom use also decreased as the number of clients increased. Studies in Ethiopia¹⁹, India²², and Cambodia²³ have also reported that as the number of clients for a FSW increased the odds of using a condom decreased.

FSWs' lack of negotiation power was found to be a major factor that discouraged condom use with clients. The com-

mon theme for not pushing for condom use was the fear of losing a client lest the client got angry or opted for another girl. About half of the participants believed that the FSW did not have any say in deciding whether to use a condom or not. Even where the FSWs tried to negotiate condom use, the final decision was made by the client. This shows that knowledge alone cannot ensure practice unless these workers are empowered to negotiate with clients. Even when the FSW had a condom available, failure to negotiate its use with a client meant unsafe sex. A study in China²⁴ also reported that FSWs lacked the ability to negotiate condom use with their clients and the authors advocated that services and programs should also be directed towards the community at large in addition to specific programs for the sex workers.²⁴ Studies from Congo²⁵, Nepal²⁶, and Nigeria²⁷ have also reported that FSWs' lack of ability to negotiate condom use with their clients was a major reason for unsafe sex. Research is needed to explore factors that impact FSW's ability to negotiate condom use, and interventions must be designed to address these factors.

The present study showed an association of condom use with age and number of years spent in sex work. Older and more experienced FSWs were less likely to use condoms. The reason may be that they are less open to change and continue with the same practice that they have been following for a long time. Association of condom use with age and duration of work have also been reported by other studies.^{18, 19, 25} Moreover, FSW who perceived condoms to be protective against STD/HIV were more likely to use them. It is very important to create awareness of STD and HIV/AIDS transmission among the sex workers and the general population, as the clients of the sex workers act as the bridging population in transmitting STI/HIV.

The fact that girls working through brothels were more likely to use condoms in comparison to those operating through streets is an important finding. Previous studies have reported that brothel based FSWs are more likely to use condoms probably because the brothels provide the condoms²⁸ thus sparing the FSW the embarrassment of buying them, and they seem to have better negotiating skills as compared to street based FSWs.²⁹ Any interventions must be tailored to address the particular category of the FSWs, therefore, contextual factors need to be researched further.

Research has shown that FSWs are more likely to use condoms with their commercial partners/clients in contrast to their regular partners.^{21,26} In the present study the prevalence of condom use decreased with non-paying partners or the girls' boyfriends and husbands. Studies have found that familiarity and closeness with the male partner decreased condom use^{21,26,27} thus putting them at risk of acquiring STI/HIV. Interventions need to target the regular partners of FSWs as well as their paying clients.

FSWs informed that condom use was difficult with clients who were drunk. So the girls did not use condoms when the clients were too intoxicated or under the influence of alcohol. Studies have reported that FSWs find it difficult to negotiate condom use where a client has been drinking³⁰ or under the influence of drugs.²⁵

The present study did find that FSWs with access to condoms were more likely to use them as compared to those with no access. This means that access to condoms needs to be increased to encourage more consistent use. A study in Congo has also reported that access is an important factor in determining condom use.²⁵

CONCLUSION

The prevalence of condom use among female sex workers was low despite a high percentage having knowledge about condom use as a protective measure against HIV and STDs. Major barriers to consistent use of condoms included lack of negotiating power of the FSWs and limited access to health and social programs. Other factors associated with not using condoms included, not being attached to a brothel, being over 35 years old, more than 05 years in sex work, having sex with nonpaying partners, use of alcohol, low access to condoms, and no knowledge about condom being protective against HIV. There is a need to improve FSW's access to health services and counseling regarding safe sex. Interventions also need to target the clients of sex workers and the general population.

LIMITATIONS

There are limitations to this study. Since FSWs are a hard to reach group so non-probability convenient sampling was used for recruitment. The study only included two categories of FSWs, brothel based and street based; therefore, it may not be generalizable to all categories of FSWs.

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CONFLICT OF INTEREST

We have no pecuniary or other personal interest, direct or indirect, in any matter that raises or may raise a conflict with our duties as researchers.

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