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Sexual Practices of Female Sex Workers in Ibadan, Nigeria

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Authors' contributions

This work was carried out in collaboration between all authors. Authors ALA, OAA and FGA designed the study and wrote the protocol. Authors ALA and ODO supervised the data collection. Authors FGA and OAA performed the statistical analysis. Authors ALA and ODO wrote the first draft of the manuscript together with author CEU. All authors read and approved the final manuscript.

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ABSTRACT

Female Sex Workers (FSWs) are highly at risk to sexually transmitted infection considering the factors associated with the nature of their work (multiple sex partners, violence, and drug use). Some of the contributing factors to HIV problem in Oyo state include promiscuity and multiple sexual partners which is related to sex worker's working condition. This study assessed sexual practices of female sex workers in Ibadan, Nigeria.

This cross-sectional study used a three-stage sampling method to select 205 female sex workers in Ibadan. Data were collected using an interviewer-administered semi-structured questionnaire to

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explore respondents' sexual practices. Data were analysed using descriptive statistics and Chi-square test.
The mean age was 27.0 ±4.52 years. A majority (44.4%) of the respondents had secondary school certificate, 70.7% were Christians while 5.9% were currently married. Few 1.5% of the respondents had never used condom, 37.6% of respondents had sometimes used condom and 42.0% reported using condom most of the time. Many (47.3%) of the respondents sometimes drink alcoholic beverages prior to or during sexual intercourse, 6.3% use cocaine or another drug prior to or during intercourse most of the times and only 15.6% always avoid sexual intercourse when they have sores or irritation in their genitals.
Consistency in condom use should be encouraged among female sex workers and interventions targeted at reducing alcohol intake should be planned and implemented.

Keywords: Female sex workers; HIV-AIDS; sexual practice; Brothel-based.

1. INTRODUCTION

The high prevalence of HIV among female sex workers (FSWs) is one of the major factors in the spread of the disease epidemic [1]. Female sex workers are highly at risk to sexually transmitted infection considering the factors associated with the nature of their work (multiple sex partner, violence, drug use) [2]. A female sex worker in Lagos was among the first set of individuals diagnosed with HIV/AIDS in Nigeria and 24.5% of FSWs in Nigeria are living with HIV [3,4].

The level of exposure of a female sex worker to HIV/AIDS is determined by her sexual practices, thus a female sex worker who practice safe sex has a lower level of risk compared to one who practice unsafe sex. Safe sex is described as sexual contact that doesn't involve the exchange of fluids (semen, vagina fluid, blood) between partners which is properly achieved majorly by the consistent use of a condom [5]. According to the Centre for Disease Control (CDC) [6], the use of condoms consistently and correctly is a safe sexual practice, which is very effective and efficient at preventing STI's including HIV.

Studies have shown that women who practice unsafe sexual behaviours do so because of several factors. Bukenya et al. [7] reported in their study in Kampala that 40.0% of participants were not consistently using condoms with paying clients. Irene and Aikhole [8] however, reported that some of the contributing factors to HIV prevalence in Oyo state includes promiscuity and multiple sexual partners which is related to sex workers working condition. Furthermore, it was also reported that it is a social norm for some female sex workers not to use condom with their boyfriends who in most cases are their regular sex partners. However, unprotected sex could happen with paying clients due to the influence of drugs, alcohol, and being offered large sums of money [9,10,11,12].

Ankomah et al. [11] stated that customers of sex workers are always the king when it comes to negotiating condom use because they determine the amount of money given to the sex workers. Likewise, in a study among Brothel-based Female Sex Workers in Osogbo, Southwest-Nigeria, Adelekan et al. [10] reported that even though some FSWs had never tested positive for HIV and few had ever been treated for STI more than once. However, they acknowledged having multiple sexual partners and were willing to have male clients who do not wear a condom in exchange for more money.

Meanwhile, HIV prevalence among the general population in Nigeria has been declining from its peak of 5.8% in 2001 to 4.1% in 2011 [13]. However, the prevalence among brothel-based sex workers has shown no sign of decline [11]. Furthermore, Okafor et al. [14] reported that the prevalence of HIV amongst Brothel-based female sex workers in Nigeria was significantly higher than its prevalence among Non Brothel-based Female Sex Workers (21.0% vs. 15.5%). Also, in an attempt to understand the sexual practices of sex workers in Ibadan, a study among commercial sex workers in 21 brothels in Ibadan municipal was conducted about a decade ago and revealed that relatively, respondents always insisted on condom use before sex with their clients but a few of them (1.4%) often do not, and of those who asked clients to use condoms, 69.5% of them would refuse sex without condoms, 16.6% would do nothing and have sex without condoms while 4.4% would charge extra money [12]. Hence, this study is therefore designed to determine the current

sexual practices of brothel-based FSWs in Ibadan, Nigeria.

2. METHODOLOGY

2.1 Study Design and Scope

This is a descriptive cross-sectional study. The scope of the study was delimited to sexual practices of brothel-based female sex workers in Ibadan, Nigeria.

2.2 Study Area

The study area for this project was Ibadan, Nigeria. The population of Ibadan as at 2007 was estimated to be 3,847,472. Ibadan municipality is divided into 11 Local Government Areas (LGAs). The inner core areas form the old part of the city, inhabited, for the most part, by people with a low level of education. These areas are highly congested and overcrowded, have few and poor roads, limited amenities, and many public health problems. The suburban periphery is described as the elite area, containing modern low-density residential estates, occupied by professionals and other high-income groups [15].

2.3 Study Population

The study population are brothel-based FSWs in Ibadan metropolis, Nigeria.

2.4 Sample Size Determination

The sample size was calculated using the formula

$n= z^2pq/d^2$ [16]

n= sample size
z= the standard normal deviation which corresponds to the 95% confidence level (1.96)
p= estimate of key proportion (92.9% or 0.929). Percentage of sex workers reporting the use of a condom with their most recent client [17]
q= 1-p (1-0.929= 0.071)
d= degree of accuracy desired (0.05)

$$n= \frac{1.96^2 \times 0.929 \times 0.071}{0.05^2}$$

= 101.355

The sample size was increased to 250 for generalization of findings.

n= 250

2.5 Sampling Procedure

A total of 250 sex workers were recruited for this study through a three-stage sampling technique.

Stage 1: Two LGAs were purposively selected because of heavy presence of sex workers in these LGAs. The selected LGAs are Ibadan-North and Ibadan North-West.

Stage 2: The brothels in the two LGAs were stratified into four clusters namely Kara at Bodija, Ekotedo, Queen Cinema and Mokola clusters.

Stage 3. All consenting respondents in all the clusters were interviewed.

2.6 Method for Data Collection

A quantitative method of data collection was adopted for this study.

2.7 The Questionnaire

An interviewer-administered questionnaire was used to obtain the necessary information from the respondents. The questionnaire was developed by the researchers based on literature reviewed together with input from health promotion specialists in the Faculty of Public Health, University of Ibadan. The questionnaire was used to collect information on the socio-demographic data of the respondents and sexual practice and was administered by the research assistants.

2.8 Pretest of Instrument

The questionnaire was pre-tested to enable the researchers to make final adjustments and to find out how reliable and consistent the questions were. The Cronbach's Alpha Model technique was employed to measure the reliability of the instrument. This involves administering the questionnaire once to 10% (25 questionnaires) of FSWs in Osogbo which has similar characteristics with the study population and consequently the coefficient reliability was calculated using SPSS computer software and correlation coefficient of 0.84 was gotten for the instrument.

2.9 Data Collection Process

Five (5) research assistants (Male=2 and Female=3) were recruited to assist the researchers in collecting data for the study. Two of the research assistants have a master of public health degree while the remaining three

have a bachelor degree in health and health-related disciplines. Training was conducted for the research assistants to ensure that they have adequate understanding of the instruments' prior to commencement of data collection. The training focused on the objectives and importance of the study, sampling process, how to secure respondents informed consent, basic interviewing skills and how to review questionnaires to ensure completeness. The research assistants went to all the brothels that were used for this study together with the researchers. The research assistants were responsible for collecting data for the study. The data were collected within the period of 17 days. Consent of all the respondents was obtained before the interview and the objectives of the study were explained to them.

2.10 Data Management, Analysis and Presentation

The completed copies of the questionnaire were serially numbered for control and recall purposes. Data collected was checked for completeness and accuracy on a daily basis. The data collected was collated, screened, and entered into computer. The Statistical Package for Social Science (SPSS) version 21 was used for the analysis of the data. Descriptive statistics was used. Frequencies were generated and cross-tabulation of some variables.

2.11 Ethical Consideration

The nature, purpose and process of the study were explained to the respondents after which informed consent was obtained by giving them informed consent forms to fill according to their ability to read and write. The informed consent form spelt out the title of the study, the purpose of the study, justification for doing the study as well as the benefit that will be derived from the end of the study. Respondents were also assured of confidentiality, privacy and anonymity of information provided. It was explained to the respondents that the confidentiality of information shared during the interview would be guaranteed and treated as confidential and private. Participation in the study was voluntary and there was no criticism of respondents who refuse to participate or wish to withdraw from the study. No identifier like respondents name or address was written on the questionnaire so as to keep the information given by each respondent confidential.

3. RESULTS

3.1 Socio-Demographic Characteristics

A total of 205 respondents completed the questionnaire with a response rate of 82.0%. The mean age of the respondents was 27.0±4.5 years. Most (70.7%) of the respondents were Christians and 5.9% were currently married. Many (62.4%) of the respondents did not have a deceased parent (Fig. 1) out of which 12.2% have both parents deceased (Fig. 2). Many (44.4%) of the respondents had a secondary school certificate and 33.7% did not have a good relationship with their parents (Fig. 3) (Table 1). Many (62.4%) of the respondents do not have a deceased parent.

Table 1. Socio-demographic characteristics

Demographics	Frequency n (%)
Religion	
Islam	52 (25.4)
Christianity	145 (70.7)
Others	8 (3.9)
Ethnicity	
Yoruba	81 (39.5)
Igbo	71 (34.6)
Hausa	23 (11.2)
Edo	19 (9.3)
Others	11 (5.4)
Ever been married	
Yes	67 (32.7)
No	138 (67.3)
Current Marital status	
Single	134 (65.4)
Married	12 (5.9)
Living with someone as if you are married	4 (2.0)
Separated	34 (16.6)
Divorced	13 (6.3)
Widowed	8 (3.9)
Living with	
Family	32 (15.6)
Alone	90 (43.9)
Friends	72 (35.1)
Partner	11 (5.4)
Level of education	
Illiterate	13 (6.3)
Primary Education	34 (16.6)
Secondary Education	91 (44.4)
OND/NCE	57 (27.8)
HND/First Degree	7 (3.4)
Post graduate	3 (1.5)

Key: OND – Ordinary National Diploma, NCE - Nigeria Certificate in Education, HND - Higher National Diploma

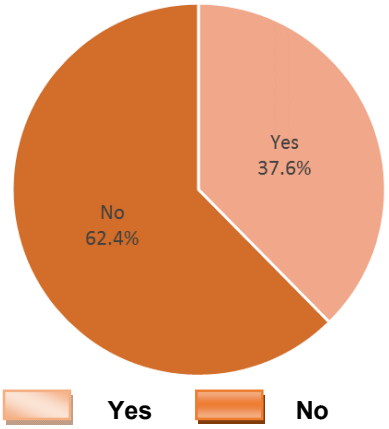

Fig. 1. Respondents with deceased parents

3.2 Respondent's Sexual Practice

Almost all (99.0%) the respondents had ever used a condom. Most (78.5%) of the respondents did not use condom at their first sexual experience. The reasons adduced included not having a condom on hand (41.5%), could not get one (14.6%), and did not feel it was necessary (9.8%). Most of the respondents reported using condom (69.8%) among other means to prevent pregnancy during their last sexual intercourse. Also, the use of emergency contraceptives was (17.1%) and interrupting sexual act (withdrawal) was (12.7%). In the last one week, less than half (42.0%) reported using condom most of the time, sometimes (37.6%), always (17.1%) and never (1.5%) (Fig. 4). On the issue of HIV prevention, most (85.9%) of the respondents reported using a condom to protect themselves while some do regular clinical check-ups (31.2%), a few avoid certain types of men (29.3%) and 7.3% of the respondents have fewer partners (Fig. 5).

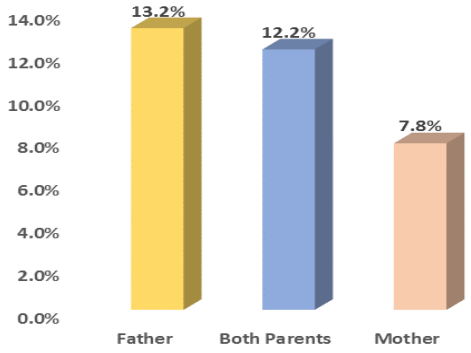

Fig. 2. Parents of respondents' not alive

3.3 Respondents Degree of Sexual Risk Practice

Few (3.9%) of the respondents never insisted on condom use when having sexual intercourse, 6.3% use cocaine or another drug prior to or during intercourse most of the time and 18.5% never avoid sexual intercourse when they have sores or irritation in their genitals. Half (50.2%) of the respondents sometimes refuse to have sexual intercourse if a client insists on sexual intercourse without a condom, 5.4% always have anal sex without condom and 3.9% always drink alcoholic beverages prior to or during sexual intercourse (Table 3).

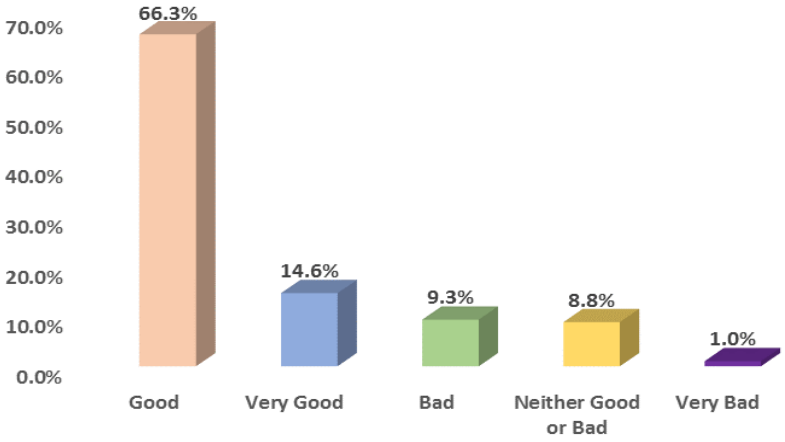

Fig. 3. Respondents' relationship with parents

Table 2. Respondent's sexual risk practices

Sexual practice	Yes (%)	No (%)
Ever used condom?	203 (99.0)	2 (1.0)
Condom used at first sexual intercourse	42 (20.5)	161 (78.5)
Reasons for not using condom at first sexual intercourse*		
Didn't have one at hand	85 (41.5)	94 (45.9)
A wish to become pregnant	2 (1.0)	176 (85.9)
Couldn't obtain one	30 (14.6)	148 (72.2)
Didn't like to use condom	2 (1.0)	175 (85.4)
Didn't think is necessary	20 (9.8)	140 (68.3)
Reasons for using condom at first sexual intercourse*		
To be protected against pregnancy	45 (22.0)	153 (74.6)
Not to be infected with a disease	22 (10.7)	176 (85.9)
Not to be infected with HIV	22 (10.7)	175 (85.4)
Condom use at last sexual intercourse		
Condom used at last sexual intercourse	147 (71.7)	54 (26.3)
***Reasons for using condom at last sexual intercourse**		
To be protected against pregnancy	110 (53.7)	90 (43.9)
Not to be infected with a disease	104 (50.7)	97 (47.3)
Not to be infected with HIV	117 (57.1)	84 (41.0)
Pregnancy prevention at last sexual Intercourse	183 (89.3)	16 (7.8)
***Method of avoiding pregnancy**		
Douche vagina with water	18 (8.8)	177 (86.3)
Count dangerous days in menstrual cycle	15 (7.3)	179 (87.3)
Interrupt sexual act (withdraw)	26 (12.7)	165 (80.5)
Condom	143 (69.8)	47 (22.9)
Emergency contraceptives (postinor)	35 (17.1)	158 (77.1)
Family planning	17 (8.3)	175 (85.4)
Protection from contracting HIV	139 (67.8)	19 (9.3)

**Multiple responses*

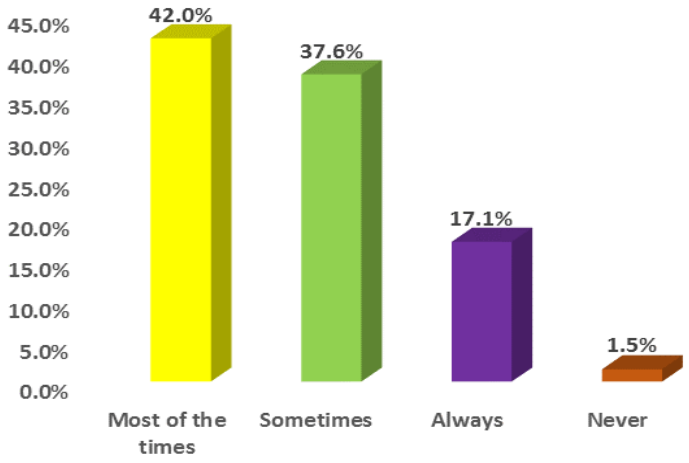

Fig. 4. Respondents' use of condoms in the last one week

4. DISCUSSION

Many of the respondents were currently single. This is similar to findings of studies by [10,18,19] where it was also reported that majority of their respondents were single. Many of the respondents had secondary school certificate corroborating findings in a similar study by Adelekan et al. [10].

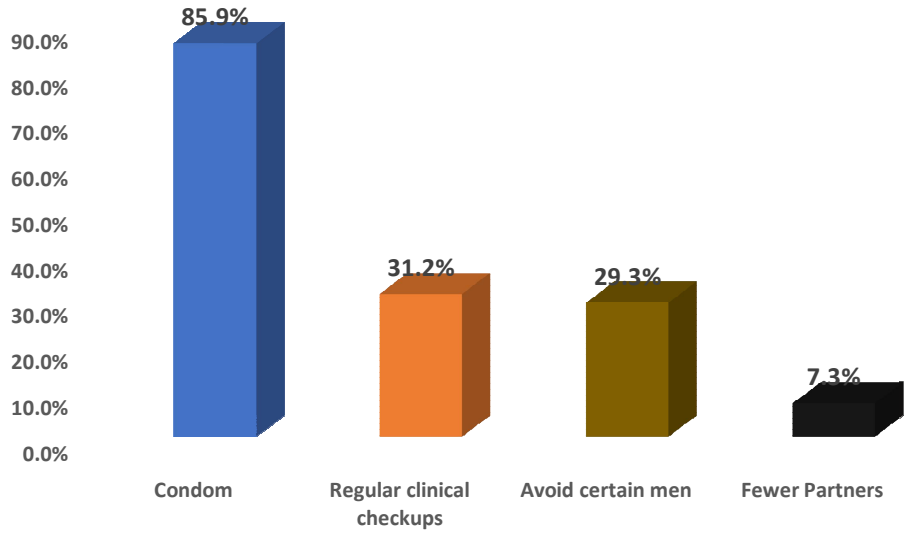

Fig. 5. Respondents means of prevention against AIDS

Table 3. Respondents degree of sexual practices

Sexual practices	Never (%)	Sometimes (%)	Most of the time (%)	Always (%)
Insist on condom use when having sexual intercourse.	8 (3.9)	129 (62.9)	44 (21.5)	15 (7.3)
Use cocaine or other drugs prior to or during sexual intercourse.	119 (58.0)	63 (30.7)	13 (6.3)	2 (1.0)
Avoid sexual intercourse when sores or irritation are in genital area.	38 (18.5)	96 (46.8)	31 (15.1)	32 (15.6)
Insist on examining sexual partner for sores, cuts, or abrasions in the genital area.	54 (26.3)	93 (45.4)	43 (21.0)	8 (3.9)
Disagree with information that partner/client presents on safer sex practices, state point of view.	48 (23.4)	104 (50.7)	40 (19.5)	9 (4.4)
If swept away in the passion of the moment, sexual intercourse is done without using a condom	22 (10.7)	121 (59.0)	55 (26.8)	0 (0)
If partner/ client insists on sexual intercourse without a condom, sexual intercourse is refused	35 (17.1)	103 (50.2)	55 (26.8)	6 (2.9)
It is difficult to discuss sexual issues with clients/ sexual partners	43 (21.0)	85 (41.5)	52 (25.4)	13 (6.3)
Initiates the topic of safer sex with potential sexual partner	46 (22.4)	104 (50.7)	30 (14.6)	10 (4.9)
Engage in anal intercourse without using a condom	79 (38.5)	75 (36.6)	34 (16.6)	11 (5.4)

Many of the respondents did not make use of condom at first intercourse because there was no condom at hand while more than half of the respondents reported the use of condom as at the last time they had sex so as to prevent diseases and pregnancy. The availability and accessibility of condom at first sexual intercourse could have been lower than the availability and accessibility of condom at last sexual intercourse, this may be as a result of improved level of awareness and perception of the risk involved in having sex without a condom. The

use of condom to avoid pregnancy was more than its use to prevent HIV at first sexual intercourse but at last sexual intercourse, many of the respondents made use of condom to prevent themselves from HIV than to avoid pregnancy. This showed that the level of awareness on risks of HIV has improved.

The respondents could have used cocaine and other drugs to become bold, to negotiate with clients confidently, and to be strong in bed with clients [10]. Also, practice of anal sex without condoms by a few of the female sex workers and non-avoiding of sexual intercourse when sores or irritation are in the genital areas of Female Sex Workers predisposes them to poor and unsafe sexual practices. Although, many of the respondents sometimes insist on the use of condom, the observable inconsistency could be because some customers wonder if a sex worker is infected with a disease if she insists on the use of condom and some female sex workers do not insist on condom use with their boyfriends or regular sex partners [20]. Lim et al. [21] also reported low consistency in the use of condom among its participants, most especially with their regular partners which correlated with low knowledge on sexual and reproductive health. Moreso, the inconsistency in condom use could be as a result of clients offering to pay more, respect for boyfriends, boyfriends that claim to be STI's free and alcohol intake or substance abuse prior to sex [22,9,10,11,12].

Many of the respondents sometimes drink alcoholic beverages prior to or during sexual intercourse. This is in line with studies by Verma et al. [23] and Heravian et al. [24] which reported more than half of their respondents' consumption of alcohol before sex. This also corroborates Mbonye et al. [25] study which reported high consumption of alcohol among its respondents due to emotional and economic needs and at times their clients encourage the consumption of the alcohol which ends up aiding unsafe sexual practice and unprotected sex as the participants were intoxicated and won't remember to make use of condom [26].

5. CONCLUSION

This study revealed a low consistency in the use of condom which is an unsafe sexual practice since using condom consistently helps to achieve safer sexual practices. The intake of alcohol before or during sexual activity among female sex workers, if addressed will help reduce unprotected sexual practices among brothel-based sexual workers. Interventions targeted at sensitisation and health education on the health consequences of alcohol and the role it plays in unsafe sexual practices should be done.

Even though many of the respondents have never engaged in anal sex, majority of them sometimes refused to have sex if client refuses to use condom. Thus, confirming that some of the female sex workers value their health and wellbeing more than the money that will be paid to them.

CONSENT

As per international standard or university standard, patient's written consent has been collected and preserved by the authors.

ETHICAL APPROVAL

It is not applicable.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

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