1	Original Research Article
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3	SEXUAL PRACTICES OF FEMALE SEX WORKERS IN IBADAN,
4	NIGERIA
5	ABSTRACT
6	Female Sex Workers (FSWs) are highly at risk to sexually transmitted infection considering
7	the factors associated to the nature of their work (multiple sex partners, violence, and drug
8	use). Some of the contributing factors to HIV problem in Oyo state include promiscuity and
9	multiple sexual partner which is related with sex workers working condition. This study
10	assessed sexual practices of female sex workers in Ibadan, Nigeria.
11	A three stage sampling method was used to select 205 female sex workers in four major
12	brothels in Ibadan and data was collected using an interviewer administered semi-structured
13	questionnaire to document respondents sexual practices. Data were analysed using
14	descriptive statistics and Chi-square test.
15	The mean age was 27.0 \pm 4.52 years. Many (44.4%) of the respondents had secondary school
16	certificate 70.7% were Christians and 5.9% were currently married. Few (1.5%) of the
17	respondents had never used condom, sometimes (37.6%), and 42.0% reported using condom
18	most of the time. Many (47.3%) of the respondents sometimes drink alcoholic beverages
19	prior to or during sexual intercourse, 6.3% most of the times, use cocaine or other drug prior
20	to or during intercourse and only 15.6% always avoid sexual intercourse when they have
21	sores or irritation in their genitals.
22	Consistency in condom use should be encouraged among female sex workers and
23	interventions targeted at reducing alcohol intake should be planned and implemented.
24	Key words: Female sex workers, HIV-AIDS, Sexual practice, Sexual behaviour, Brothel-
25	based
26	INTRODUCTION
27	The high prevalence of HIV among female sex workers (FSWs) is one of the major factors in
28	the spread of the disease epidemic (UNAIDS, 2008). Female sex workers are highly at risk to

29 sexually transmitted infection considering the factors associated with the nature of their work

(multiple sex partner, violence, drug use) (Spice, 2007). A female sex worker in Lagos was
among the first set of individuals diagnosed with AIDS in Nigeria and 24.5% of FSWs in
Nigeria are living with HIV (Abdulsalam and Tekena, 2006; NACA, 2015).

The level of exposure of a female sex worker to HIV is determined by her sexual practice, thus a female sex worker who practices safe sex has a lower level of risk compared to one who practices 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 (Better Health Channel, 2014). According to the CDC (2016), 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 practise unsafe sexual behaviours do so because of 40 several factors. Bukenya et al (2013) reported in their study that 40.0% of women who 41 engage in high risk sexual behaviour in Kampala were not consistently using condoms with 42 paying clients. Irene and Aikhole (2016) however, reported that some of the contributing 43 factors to HIV prevalence in Oyo state includes promiscuity and multiple sexual partners 44 which is related with sex workers working condition. Furthermore, it was also reported that it 45 is a social norm for some female sex workers not to use condom with their boyfriends who in 46 most cases are their regular sex partners. However, unprotected sex could happen with paying 47 clients due to the influence of drugs, alcohol, and being offered large sums of money 48 (Onyango et al., 2012; Adelekan et al., 2014; Ankomah et al., 2011; Umar et al., 2002). 49

Ankomah et al (2011) 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 (2014) 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 in return.

57 Meanwhile, HIV prevalence among the general population in Nigeria has been declining 58 from its peak of 5.8% in 2001 to 4.1% in 2011 (FMoH, 2010). However, the prevalence 59 among brothel-based sex workers has shown no sign of declining (Ankomah et al., 2011). 50 Furthermore, Okafor et al (2017) reported that the prevalence of HIV amongst Brothel based 51 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 62 sexual practices of sex workers in Ibadan, a study among commercial sex workers in 21 63 brothels in Ibadan municipal was conducted about a decade ago and revealed that relatively, 64 respondents always insisted on condom use before sex with their clients but a few of them 65 (1.4%) often do not, and of those who asked clients to use condoms, 69.5% of them would 66 refuse sex without condoms, 16.6% would do nothing and have sex without condoms while 67 4.4% would charge extra money (Umar et al., 2002). Hence, this study is therefore designed 68 to determine the current sexual practices of brothel based FSWs in Ibadan, Nigeria. 69

70 METHODOLOGY

71 Study Design and Scope

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

74 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 (Arulogun et al., 2012).

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83 Study Population

84 The study population are brothel based FSWs in Ibadan metropolis, Oyo State, Nigeria.

85 Sample size Determination

86 The sample size was calculated using the formula

87 $n=z^2pq/d^2$

- 88 n= sample size
- z = the standard normal deviation which corresponds to the 95% confidence level (1.96)
- 90 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 (Nigeria 2014 GARPR Report, 2014)
- 92 q=1-p(1-0.929=0.071)

93 d = degree of accuracy desired (0.05)

95 0.05^2

96 = 101.355

- 97 The sample size was increased to 250 for generalization of findings.
- 98 n= 250

99 Sampling Procedure

- 100 A total of 250 sex workers were used for this study and a three stage sampling technique was
- 101 adopted in selecting the respondents.
- 102 Stage 1: Two LGAs were purposively selected because of heavy presence of sex workers in
- 103 these LGAs. The selected LGAs are Ibadan-North and Ibadan North-West.
- 104 Stage 2: The brothels in the two LGAs were stratified into four clusters namely Kara at
- 105 Bodija, Ekotedo, Queen Cinema and Mokola clusters.
- 106 Stage 3. All consenting respondents in all the clusters were interviewed.

107 Method for data collection

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

109 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.

116 **Pretest of Instrument**

The questionnaire was pre-tested to enable the researchers 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% 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 0.084 was gotten for the instrument.

123

124 Data Collection Process

Five (5) research assistants (Male=2 and Female=3) were recruited to assist the researchers in 125 collecting data for the study. Two of the research assistants have a master of public health 126 degree while the remaining three have a bachelor degree in health and health related. 127 Training was conducted for the research assistants to ensure that they have adequate 128 understanding of the instruments' prior to commencement of data collection. The training 129 focused on the objectives and importance of the study, sampling process, how to secure 130 respondents informed consent, basic interviewing skills and how to review questionnaires to 131 132 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 133 data for the study. The data were collected within the period of 17 days. Consent of all the 134 respondents were obtained before the interview and the objectives of the study were 135 explained to them. 136

137 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, scored and entered into computer. The Statistical Package for Social Science (SPSS) was used for the analysis of the data. Descriptive statistics and Chi-Square were used. Frequencies were generated and cross tabulation of some variables.

144 **Ethical Consideration**

Informed consent was also obtained from the respondents by given them informed consent form to fill according to their ability to read and write. The informed consent form spelled 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. 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.

152 **RESULTS**

153 Socio-Demographic Characteristics

A total of 205 respondents completed the questionnaire given 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

156 Christians and 5.9% were currently married. Most (62.4%) of the respondents did not have a

parent alive and 43.9% are living alone. Many (44.4%) of the respondents had a secondary

school certificate and 33.7% did not have a good relationship with their parents. (Table 1)

Demographics	Frequency
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	4 (2.0)
are married	
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)

159	Table 1: Socio-Demographic Characteristics
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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)

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162 Fig 1: Respondents with deceased parents

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165 Fig 2: Respondents' parent not alive





167 Fig 3: Respondents' relationship with parents

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169 Respondent's Sexual practice

Almost all (99.0%) the respondents had ever used condom. Most (78.5%) of the respondents 170 did not use condom at their first sexual experience. Reasons adduced included not having 171 condom at hand (41.5%), could not get one (14.6%), and did not feel it was necessary (9.8%). 172 Most (89.3%) of the respondents reported using pregnancy prevention during the last sexual 173 intercourse which included condom (69.8%), emergency contraceptives (17.1%) and 174 withdrawal (12.7%). In the last one week, less than half (42.0%) reported using condom most 175 of the time, sometimes (37.6%), always (17.1%) and never (1.5%) (Fig 4). On the issue of 176 HIV prevention, most (85.9%) of the respondents reported using a condom, self-protection 177 (52.7%), regular clinical check-ups (31.2%), avoiding certain types of men (29.3%) and 178 fewer partners (7.3%). (Fig 5) 179

180 Table 2: Respondent's sexual 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 contacting HIV	139 (67.8)	19 (9.3)
*Multiple response	I	I

181 *Multiple response



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



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185 Fig 5: Respondents means of protecting against AIDS

186 Respondents Degree of Sexual Practice

Few (3.9%) of the respondents never insisted on condom use when having sexual intercourse, 6.3% use cocaine or other 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. A little above 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)

193 Table 3: Respondents degree of sexual practices

Sexual Practices	Never	Sometimes	Most of	Always
	(%)	(%)	The Time	(%)
			(%)	
Insist on condom use when having sexual	8	129	44	15
intercourse.	(3.9)	(62.9)	(21.5)	(7.3)
Use cocaine or other drugs prior to or during sexual	119	63	13	2
intercourse.	(58.0)	(30.7)	(6.3)	(1.0)
Avoid sexual intercourse when sores or irritation	38	96	31	32
are in genital area.	(18.5)	(46.8)	(15.1)	(15.6)
Insist on examining sexual partner for sores, cuts,	54	93	43	8
or abrasions in the genital area.	(26.3)	(45.4)	(21.0)	(3.9)

Disagree with information that partner/client	48	104	40	9
presents on safer sex practices, state point of view.		(50.7)	(19.5)	(4.4)
If swept away in the passion of the moment, sexual		121	55	0
intercourse is done without using a condom	(10.7)	(59.0)	(26.8)	(0)
If partner/ client insists on sexual intercourse	35	103	55	6
without a condom, sexual intercourse is refused	(17.1)	(50.2)	(26.8)	(2.9)
It is difficult to discuss sexual issues with clients/	43	85	52	13
sexual partners	(21.0)	(41.5)	(25.4)	(6.3)
Initiates the topic of safer sex with potential sexual	46	104	30	10
partner	(22.4)	(50.7)	(14.6)	(4.9)
Engage in anal intercourse without using a condom	79	75	34	11
	(38.5)	(36.6)	(16.6)	(5.4)

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195

196 **DISCUSSION**

Many of the respondents were currently single. This is similar to findings of studies by (Adelekan et al., 2014; Roxburgh et al., 2005; Andrew et al., 2015) 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 (2014). However, many of the respondents did not make use of condom at first intercourse because there was no condom at hand, which may possibly be related to their awareness of the risk of HIV.

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. 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 shows that the level of awareness on the use of condom in preventing HIV has improved.

The level of degree of sexual practices of many of the respondents was poor, this may not be unconnected with drug use during and prior to sex. 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 (Adelekan et al., 2014). Also, practice of anal sex without condoms by a few of 213 the female sex workers and non-avoiding of sexual intercourse when sores or irritation are in 214 the genital areas of Female Sex Workers predisposes them to poor and unsafe sexual 215 practices. Although, many of the respondents sometimes insist on the use of condom, the 216 observable inconsistency could be because some customers wonder if a sex worker is 217 infected with a disease if she insists on the use of condom and some female sex workers do 218 not insist on condom use with their boyfriends or regular sex partners (Basuki et al., 2002). 219 Lim et al., 2015 also reported low consistency in the use of condom among its participants, 220 most especially with their regular partners which correlated with low knowledge on sexual 221 and reproductive health. Moreso, the inconsistency in condom use could be as a result of 222 clients offering to pay more, respect for boyfriends, boyfriends that claim to be STI's free and 223 alcohol intake or substance abuse prior to sex (Population Council. 2015; Onyango et al., 224 2012; Adelekan et al., 2014; Ankomah et al., 2011; Umar et al., 2002;). 225

Many of the respondents sometimes drink alcoholic beverages prior to or during sexual 226 227 intercourse. This is in line with studies by Verma et al (2010) and Heravian et al (2012) which reported more than half of their respondents' consumption of alcohol before sex. This 228 229 also corroborate Mbonye et al (2016) study which reported high consumption of alcohol among its respondents due to emotional and economic needs and at times their clients 230 encourage the consumption of the alcohol which ends up aiding unsafe sexual practice and 231 unprotected sex as the participants were intoxicated and won't remember to make use of 232 condom (Zhang et al., 2012). 233

234 CONCLUSION

This study revealed a low consistency in the use of condom which is a predisposing factor to 235 unsafe sexual practice since using condom consistently helps to achieve safer sexual 236 practices. Sensitisation and health education intervention on the health consequences of 237 alcohol and the role it plays in unsafe sexual practices. The intake of alcohol before or during 238 sexual activity among female sex workers, if addressed will help reduce unprotected sexual 239 practices among brothel based sexual workers. Even though many of the respondents have 240 never engaged in anal sex, majority of them sometimes refused to have sex if client refuse to 241 use condom. Hence, this could suggest high awareness of risk and perception of unsafe 242 sexual practice. Thus, confirming that the female sex workers value their health and 243 wellbeing more than the money that will be paid to them. 244

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