

Assessment of Stigma, Violence and Coping Strategies of HIV-Positive Female Sex Workers in Akwa-Ibom-State, Nigeria

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ABSTRACT

Introduction: This study identifies factors and qualitatively explores the stigma, violence, and coping mechanisms among female sex workers (FSWs) in Akwa Ibom State.

Method: A descriptive cross-sectional study was conducted among HIV-positive FSWs receiving care at the Heartland Alliance one-stop shop (OSS). Data were collected from 1,723 FSWs at four OSS sites, with 30% recruited from OSS visitors and 70% from local governments, potentially including those treated at either the OSS site or other health facilities. Quantitative data were collected using a pretested structured questionnaire and an adapted stigma scale, while qualitative data came from focus group discussions.

Results: The study showed a high prevalence of rape (24.3%) among the FSWs, with clients (37.3%) and unknown people (27.3%) being the major perpetrators. Younger FSWs aged 20 and below had a higher proportion reporting high stigma (40.7%) compared to older age groups. FSWs who take alcohol [OR=2.42(95%CI:1.95-3.01;p<0.001)], disclose their HIV status, [OR=1.51(95% CI:1.22-1.87;p<0.001) and those who knew their HIV status for more than 24 months [OR=3.71(95%CI: 2.09-6.59 p < 0.0001)] showed higher odds of experiencing high stigma than their counterparts. FSWs aged 21-30 had a significantly lower odds ratio (OR = 0.61) compared to age 20 and below. Substance use increases the likelihood of rape (OR = 2.61). Being a widow, [OR=1.53(95%CI:1.08-2.18;p=0.018) substance use [OR =3.34(95%CI: 2.58-4.33 p<0.0001) and alcohol consumption [OR=1.79(95% CI:1.44-2.30 p < 0.0001)] were significantly associated with experience of physical assault among the FSWs. Coping strategies among the FSWs include abstaining from gatherings, not keeping friends and quitting other jobs.

Conclusion: Stigma, rape, and physical abuse, as well as multiple sexual partners and irregular condom use, hinder HIV control among FSWs. To significantly minimise HIV transmission among FSWs, skill acquisition and pre-exposure prophylaxis are needed.

Keywords: Stigma, coping strategies, violence, HIV-positive female sex workers, Key population

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INTRODUCTION

Female sex workers (FSWs) worldwide, especially in Nigeria, face increased HIV susceptibility and societal stigma^{1,2}. In 2000, HIV prevalence among FSWs in Nigeria was 24.3%, steadily rising despite a national prevalence decrease to 1.5%³. It is estimated that one in every ten sex workers worldwide is infected with HIV⁴. Sex workers have a 13-fold greater risk of HIV infection in low- and middle-income

countries when compared to other women of reproductive age 5. The spread of the HIV epidemic might be intensified by laws criminalising sex work, as they not only have the ability to heighten stigmas related to sex work but may also contribute to the spread of HIV-6.

Stigma compromises sex workers' human rights and mental health, exposing them to extortion, abuse, marginalisation, and discrimination and limiting their access to assistance and

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treatment from their families, communities, health, and police agencies –7,8. FSWs experience two types of stigma: outward stigma, involving actions that devalue them and exclude them from social groups, and internalized stigma, which encompasses feelings of shame, self-blame, and diminished social worth –8,9.

Violence was discovered to influence and increase the chance of contracting HIV 10. FSWs tend to be vulnerable to violence while practising their trade. This violence may be physical, sexual, economic, and psychological 1. Vulnerabilities to violence have been reported in China, where violence was attributed to either their clients or stable partners 11. According to a WHO publication, some sex workers in Europe complained that their lack of access to police protection created a climate of impunity and exposed them as targets of violence from the general population 12. They identified police officers as major perpetrators of violence against them 12. In Africa, a study in Namibia showed that almost 75% of sexual workers reported being verbally abused by intimate partners, clients, and neighbours 12. Since various studies have established stigma and violence prevalence among FSWs, this study further investigates the coping strategies they employed when facing these challenges, particularly FSWs with children.

In response to stigma and violence, FSWs employ active and passive coping techniques 13. FSWs who accept the societal stigma connected with sex work may resort to passive coping strategies such as concealing their identities as sex workers 14. This is frequently prompted by the realisation that being a sex worker or having STDs is socially unacceptable and may cause significant fear for FSWs when seeking help from healthcare experts 14,15. Stigma and prejudice among FSWs are also linked to harmful self-coping behaviours such as drinking and drug use 16. FSW also employ coping strategies in the face of violence vulnerabilities perpetrated by clients and the police – 17. According to Ikuteyijo *et al.* – 17, FSWs developed coping techniques such as setting boundaries, selecting customers carefully, and resorting to self-help. Some also armed themselves with traditional medicine, charms, and narcotics for self-defence.

Furthermore, many chose to relocate abroad or to perceived peaceful locations within the country 18. To cope with violence and stigma, some FSWs also resort to maintaining self-control and using soothing words to persuade and encourage themselves 19,20. According to the WHO, eliminating sexual violence against FSWs has the potential to reduce new HIV infections by 20% 21. Addressing stigma, promoting healthy coping, and reducing FSWs' vulnerability to violence are crucial. Studies on these issues in Akwa Ibom state are lacking. This study aims to fill this gap, offering evidence for policymakers to mitigate violence vulnerabilities and stigma's impact on FSWs' mental and social well-being.

METHODOLOGY

Study Area

Akwa Ibom State, part of the oil-rich Niger Delta region, has a population of 3.9 million spread across 31 local governments in three senatorial districts. It bears the highest HIV prevalence in Nigeria at 5.5%, with a significant unmet need for treatment, as only 36,234 out of an estimated 178,000 people living with HIV receive treatment. 22. The state is home to an estimated 35,215 FSWs. Multiple sexual partners are identified as a major driver of HIV transmission –23 There are 34 HIV treatment centres in the state, with many other health facilities involved in PMTCT/VCT.

Sampling and recruitment

Study design

The study employed a descriptive cross-sectional design to assess HIV-positive FSWs receiving services from one-stop shops (OSS) HALG in Nigeria, which provide non-discriminatory services. A concurrent mixed-method approach was used for comprehensive data collection. Eligible participants were HIV-positive FSWs aged 18 or older, engaged in sex work for at least three months, not too ill to participate, and willing to provide written informed consent. Exclusion criteria were applied for ethical and data reliability reasons, ensuring participant well-being, privacy, and study integrity.

Sample size determination

A single proportion formula for sample size determination was used with a standard normal deviation of 1.96 and a 5% margin of error. With a non-response rate of 10%, the adjusted sample size was rounded up to 430. This number was recruited for each of the four one-stop shop (OSS) sites providing an array of health-related services to give a total of 1,720 for robust analysis and interpretation of data at the level of OSS.

Sample Technique

In each of the four clusters (OSS), 130 FSWs (30% of the sample size) were recruited consecutively among FSWs coming to the OSS. The remaining 70% (300 FSW) were recruited from all the local governments that constitute the cluster at the community level, including those who may have received treatment from either the OSS site or other health facilities.

Instrument

The instrument comprised a structured questionnaire designed by the researcher for FSWs, with a stigma assessment tool adapted from previous research 24. It encompassed five sections: social demography, sexual history

(partner numbers/types, casual and transactional sex, condom use), HIV stigma and discrimination, violence (including rape), and STI/treatment-seeking behavior. Pilot testing involved 10% of the sample size in four OSS, with expert validation ensuring content validity. Data were collated, entered, and analyzed for reliability, with necessary corrections applied.

Measures

The survey's quantitative analysis covers sexual assault or rape episodes lasting from one month to over a year, including perpetrator identification. Physical assault occurrences within the same timeframe were also evaluated. Stigma was assessed on a scale of 1-4, with 1=strongly disagree, 2=disagree, 3=agree, and 4= strongly agree. Total stigma score ranged from 14-56, with higher scores indicating more stigma. Perceived stigma subscale ranged from 6-24, with a cut-off of 15, while internalized stigma subscale ranged from 8 to 32, with a cut-off of 20. A median score of 35 served as the cut-off for low- and high-level stigma.

Data collection procedure

Research assistants from the target population underwent a two-day intensive training covering computer-aided personal interviews, use of tools, and ethical considerations. Data collection occurred over two weeks, from May 10 to May 26, 2021.

Data Analysis

Data underwent cleaning, then were transferred to an IBM-SPSS version 28 spreadsheet for analysis. Frequency and mean of variables were explored, and chi-square tests assessed significant differences for each outcome. Bivariate logistic regression estimated odds ratios and tested variable associations. Categorical variables were presented as frequencies and proportions, and continuous variables as averages with appropriate measures of dispersion. Chi-square determined relationships with stigma and vulnerability status. Significance was set at 5%, and results were presented in tables and charts, with odds ratios obtained from logistic regression models.

Qualitative Study Framework

Two Focus Group Discussions (FGDs) were conducted with Female Sex Workers (FSWs) in the four OSS. One FGD included FSWs with children, while the other included those without children. This allowed exploration of unique challenges and stigma faced by FSWs who are also mothers living with HIV, impacting their coping strategies and experiences of violence. The aim was to understand if dual roles could amplify stigma, given societal expectations on mothers. Each FGD involved ten to twelve participants and

lasted 45-60 minutes. Discussions were conducted in pidgin English within the OSS premises, facilitated by moderators, note-takers, and timekeepers. A three-item guide was used to explore stigma, coping strategies, and vulnerabilities to violence. Transcripts were analyzed thematically, focusing on experienced stigma, coping mechanisms, and vulnerability to violence.

Ethical consideration

The University of Uyo Teaching Hospital's Ethical Review Committee provided ethical approval under the HREC procedure number UUTH/AD/S/96/VOLXXI/812. Respondents provided written informed consent. Participation in the study was entirely optional, and respondents had the right to withdraw at any time during the research process.

RESULTS

Quantitative findings

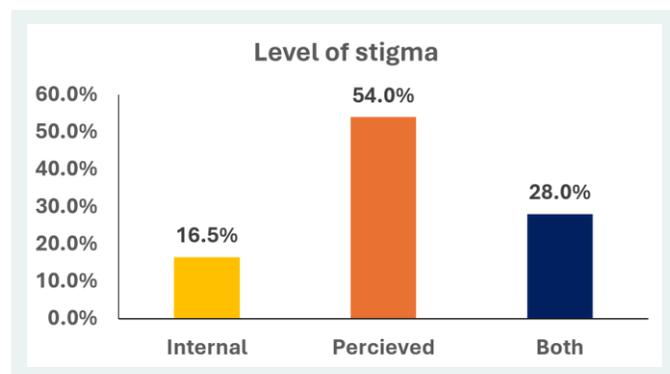
A total of 1,723 FSWs were recruited and analyzed, exceeding the expected sample size of 1,720. Their mean age was 29.6 ± 6.0 years. Most FSWs (90.8%) were aged between 21 and 40 years, with 45.9% aged 21-30 years and 44.9% aged 31-40 years. Regarding education, 53.7% completed secondary education, 22.9% had primary education, and 14.1% had no formal education. The majority were single (74.5%), with smaller percentages married/cohabiting (7.9%) or separated/divorced (11%). Nearly half (48.3%) had no children, while 16.3% had two children and 16% had one child. The predominant tribes were Ibibio (45.9%) and Oron (26.6%), followed by Annang (20.1%). Most FSWs earned between 1,000 and 5,000 Naira (66.3%), with 23.4% earning 6,000-10,000 Naira. Additionally, 21.9% were engaged in other forms of work, and 32.9% received additional financial support.

As shown in Table 2, younger FSWs aged 20 and below had a higher proportion reporting high stigma (40.7%) than older age groups. FSWs who take alcohol had 2.42 (1.95-3.01) odds of experiencing higher stigma than those who did not take alcohol. Similarly, those who disclosed their HIV status had 1.51 (1.22-1.87; $p < 0.001$) odds of experiencing higher stigma than those who did not disclose their status. Finally, FSWs who knew their HIV status for more than 24 months had higher odds of experiencing high stigma than those who knew for 0-6 months (OR = 3.71, CI: 2.09-6.59 $p < 0.0001$). Marital status and level of education are not significantly associated with the stigmatisation of FSWs in Akwa-Ibom state.

As shown in Table 3, the odds of experiencing rape decrease with increasing age among FSWs. Those aged 21-30 years have a significantly lower odds ratio (OR = 0.61) compared to the reference group (20 and below). This likelihood decreases further for the age groups 31-40 years (OR = 0.43) and 41

Table 1: Sociodemographic characteristics of FSWs receiving care in Heartland Alliance Nigeria Akwa Ibom state

Variables	Frequency (n = 1723)	Percentage
Age (Years)	20 and below	6.3
	21-30	45.9
	31-40	44.9
	41 and above	3.2
Level of education	No formal education	14.1
	Primary	22.9
	Secondary	53.7
	Tertiary	9.3
Marital status	Single	74.5
	Married/cohabiting	7.9
	Separated/divorced	11
	Widowed/widower	6.6
Number of children	0	48.3
	1	16
	2	16.3
	3	10.4
Tribe	Above 4	8.8
	Annang	20.1
	Ibibio	45.9
	Oron	26.6
Monthly income	Igbo	6
	Others	1.4
	Less than 1,000	4.6
	1,000-5,000	66.3
Currently doing other work	6,000-10,000	23.4
	11,000-15,000	4.8
	16,000-20,000	0.6
	21,000 and above	0.3
Have other financial support	369	21.9
	567	32.9

**Figure 1: Level of stigmatisation among FSWs attending Heartland Alliance, Akwa Ibom State**

years and above (OR = 0.2). FSWs who have completed secondary (OR = 0.54) and tertiary education (OR = 0.54) have a significantly lower likelihood of experiencing rape compared to those with no formal education. Among the tribal groups, the Igbo tribe shows a significantly higher odds ratio (OR = 1.77) than the Annang tribe. The use of substances is

strongly associated with an increased likelihood of rape (OR = 2.61) compared to those who do not use substances.

Physical Assaults Experience among FSWs in Akwa Ibom State

As shown in Table 4, out of the total FSWs surveyed, 48.0% (827) reported having experienced physical assault in the form of slapping or punching, while 52.0% (896) had not faced such violence. Regarding payment refusal by clients, most FSWs, 51.2% (882), reported that some clients had refused to pay them as agreed, while 48.8% (841) did not encounter this problem. Among the 827 FSWs who reported being physically assaulted, clients were the most common perpetrators, with 55.6% (460) of incidents involving clients. Partners were responsible for 14.8% (122) of physical assaults, while the police were involved in 25.2% (208) of incidents. Relations, neighbours, unknown persons, and others (such as pastors) were also identified as perpetrators, with percentages ranging from 1.5% to 11.1%.

Regarding the timeframe of the last physical assault experienced by the FSWs, the data shows that 20.7% (171) reported being assaulted in the last month, 34.8% (288) experienced it from one to six months ago, 26.0% (215) faced it from six to twelve months ago, and 18.5% (153) reported being physically assaulted more than one year ago.

The results in Table 5 indicate that age had no significant association with the likelihood of experiencing physical assault among FSWs. FSWs who were widowed had 53% higher odds of experiencing physical assault compared to single FSWs with an OR of 1.53 (95% CI: 1.08-2.18 p = 0.018). Tribe emerged as a significant factor associated with physical assault among FSWs. FSWs from the Ibibio tribe had 74% higher odds of experiencing physical assault compared to FSWs from the Annang tribe, with an OR of 1.74 (95% CI: 1.31-2.30 p < 0.0001). FSWs from the Igbo tribe also had 91% higher odds of experiencing physical assault compared to FSWs from the Annang tribe, with an OR of 1.91 (95% CI: 1.19-3.06 p = 0.007). Substance use demonstrated a significant association with physical assault experience among FSWs. FSWs who reported using substances had an OR of 3.34 (95% CI: 2.58-4.33 p < 0.0001) of experiencing physical assault compared to FSWs who did not use substances. Similarly, alcohol use also showed a significant association with physical assault. FSWs who reported using alcohol had 79% higher odds of experiencing physical assault compared to FSWs who did not use alcohol 1.79 (95% CI: 1.44-2.30 p < 0.0001).

Qualitative (FGD) Findings

This study aimed to explore the stigma experienced by HIV-positive FSWs and the violence they experience. Coping mechanisms for stigma and violence were also explored for this group.

Table 2: Factors associated with stigma among FSWs attending Heartland Alliance, Akwa Ibom State

Variables	Level of stigma n (%)		Odds ratio (95% CI)	P-value
	High Stigma(n=478)	Low stigma (n=1245)		
Age (years)				
20 and below	44 (40.7)	64 (59.3)	Ref	
21-30	255 (32.4)	535 (67.7)	0.68 (0.43 -1.07)	0.099
31-40	176 (22.8)	597 (77.2)	0.46 (0.29 -0.75)	0.002*
41 and above	3 (5.8)	49 (94.2)	0.13 (0.04 -0.48)	0.002*
Marital status				
Single	376 (29.3)	908 (70.7)	Ref	
Married/cohabiting	23 (16.9)	113 (83.1)	1.35 (0.80 -2.26)	0.257
Divorced/separated	49 (25.3)	140 (74.1)	0.97 (0.58 -1.63)	0.902
Widowed	30 (26.3)	84 (73.7)	1.12 (0.74 -1.69)	0.591
Level of education				
No formal education	78 (32.1)	165 (67.9)	Ref	
Completed Primary	98 (20.5)	297 (75.2)	0.70 (0.47 -1.05)	0.084
Completed Secondary	247 (26.7)	678 (73.3)	0.84 (0.59 -1.20)	0.340
Completed Tertiary	55 (34.4)	105 (65.6)	1.53 (0.94 -2.48)	0.084
Tribe				
Annang	66 (19.1)	280 (80.9)	Ref.	
Ibibio	218 (27.6)	572 (72.4)	1.37 (0.96 -1.95)	0.079
Igbo	21 (20.2)	83 (79.8)	0.94 (0.51 -1.74)	0.843
Oron	161 (35.1)	298 (64.9)	1.74 (1.20 -2.54)	0.004*
Others	12 (50.0)	12 (50.0)	2.99 (1.13 -7.89)	0.027*
Alcohol				
No	301 (36.9)	514 (63.1)	Ref	0.056
Yes	177 (19.5)	731 (80.5)	2.42 (1.95 -3.01)	<0.0001*
Disclosure of HIV status				
No	278 (31.8)	596 (68.2)	Ref	
Yes	200 (23.6)	649 (76.4)	1.51 (1.22 -1.87)	<0.0001*
Duration of HIV Status				
0-6	167 (38.2)	270 (61.8)	Ref	
7 - 12	66 (25.0)	198 (75.0)	1.48 (0.82 -2.67)	0.198
13 - 24	107 (22.1)	360 (77.1)	1.58 (0.93 -2.59)	0.096
Above 24	138 (24.9)	417 (75.1)	3.71 (2.09 -6.59)	<0.0001*

Sociodemographic characteristics of the FGD respondents

Four (4) FGDs were conducted in four urban areas in Akwa Ibom. These were Ikot Ekpene, Eket, Uyo and Oron. A total of 44 participants participated in the discussion. The mean age of the participants was 27.1 years+4.0, ranging from 35 to 21 years.

Stigma faced by FSWs in Akwa Ibom State

Participants discussed their experiences of stigma in the workplace, community, among family members and in the health facility where they get treatment.

Participants said they experienced stigma from various persons including family members, those that patronised them, members of the community and sometimes in religious circles.

“...but base on the way you see it yourself because when you just greet them, they will say ha, please go your way ooo they will see you as a bad girl they will say, see this one, see the kind of men she has been going with, I don't want to go close to her so that she will not initiate us into the business. So that's how they have discriminated against me” GOE,25 yrs.

Most of them agreed that the source of the stigma was not their HIV status which was unknown to many people, but the kind of trade they found themselves. Those that, however, confided in some persons about their status faced a backlash from them.

“...Ever since her sister found out that my friend is HIV positive as she saw the drugs, she was like, what kind of drugs is this. She dug deep into it and she got to know the drugs she was taking. Ever since then, whenever they have a

Table 3: Rape and the associated factors among FSWs attending HALG, Akwa Ibom State

Variables	Sexual assault/Rape n (%)		Odds ratio (95% CI)	P-value
	Rape (n=418)	No rape (n= 1305)		
Age (years)				
20 and below	43 (39.8)	65 (60.2)	Ref	
21-30	212 (26.8)	578 (73.2)	0.61(0.39-0.94)	0.026*
31-40	156 (20.2)	617 (79.8)	0.43 (0.27-0.69)	<0.0001*
41 and above	7 (13.5)	45 (86.5)	0.2 (0.08-0.53)	0.001*
Marital status				
Single	310 (24.1)	974 (75.9)	Ref	
Married/cohabiting	23 (16.9)	113 (83.1)	1.64 (1.02-2.65)	0.041*
Divorced/separated	52 (27.5)	137 (72.5)	0.89 (0.55-1.46)	0.656
Widowed	33 (29.0)	81 (71.0)	1.30 (0.89-1.90)	0.183
Level of education				
No formal education	79 (32.5)	164 (67.5)	Ref	
Completed Primary	121 (30.6)	274 (69.4)	0.85 (0.59-1.22)	0.369
Completed Secondary	185 (20.0)	740 (80.0)	0.54 (0.38-0.75)	<0.0001*
Completed Tertiary	33 (20.6)	127 (79.4)	0.54 (0.33-0.89)	0.016*
Tribe				
Annang	71 (20.5)	275 (79.5)	Ref	
Ibibio	162 (20.5)	628 (79.5)	0.98 (0.71-1.37)	0.917
Igbo	32 (30.8)	72 (69.2)	1.77 (1.06-2.97)	0.029*
Oron	147 (32.0)	312 (68.0)	1.39 (0.98-1.96)	0.067
Others	6 (25.0)	18 (75.0)	1.18 (0.43-3.19)	0.747
Alcohol use				
Yes	222 (27.2)	593 (72.8)	Ref	
No	196 (21.6)	712 (78.4)	1.02 (0.79-1.31)	0.891
Substance use				
Yes	178 (40.6)	260 (59.4)	Ref	
No	240 (18.7)	1045 (81.3)	2.61 (2.00-3.40)	<0.0001*

Table 4: Proportion of FSWs attending HALG, Akwa Ibom State, who were physically assaulted

Variables	Frequency	Percentage
Ever been physically assaulted (slapped/punched)		
Yes	827	48.0
No	896	52.0
Any clients have refused to pay you as agreed.		
Yes	882	51.2
No	841	48.8
The person who physically assaulted the FSW (n=827)		
Partner	122	14.8
Clients	460	55.6
Police	208	25.2
Relations	67	8.1
Neighbours	61	7.4
Unknown person	92	11.1
Others (pastors)	12	1.5
Last time physically assaulted (slapped/punched)		
In the last month	171	20.7
From one to 6 months	288	34.8
From 6 to 12 months	215	26
More than one year ago	153	18.5

misunderstanding, she brings it up they haven't been in good terms as she told her in her face that she had HIV...”NE,30 yrs.

Many respondents reported no stigma when accessing healthcare services for their condition. Participants discussed internalizing stigma, with many initially feeling bad about their status and denying their HIV status.

“I regret even the day (I got infected),. you will see others, and you see yourself, you don't feel like a normal being, you will wish to be like those people that don't have it and you will just feel like taking your own life, you don't live your normal life, what am I living this life for? NO,

Experience of Violence among FSWs in Akwa Ibom State

Participants recounted experiencing violence as FSWs, primarily from patrons and members of their community. Violence often arose when patrons reneged on agreements, leading to altercations. Some participants shared incidents of

Table 5: Factors associated with physical assault of FSWs attending HALG, Akwa Ibom State

Variables	Physical assault n (%)		Odds ratio (95% CI)	P-value
	Yes (n=827)	No (n=896)		
Age (years)				
20 and below	56 (51.9)	52 (48.1)	Ref	
21-30	396 (50.1)	394 (49.9)	1.00 (0.65 -1.55)	0.983
31-40	359 (46.4)	414 (53.6)	0.89 (0.57 -1.40)	0.623
41 and above	16 (30.8)	36 (69.2)	0.52 (0.24 -1.13)	0.098
Marital status				
Single	616 (48.0)	668 (52.0)	Ref	
Married/cohabiting	39 (31.0)	87 (69.0)	1.33 (0.85 -2.07)	0.207
Divorced/separated	105 (55.6)	84 (44.4)	0.92 (0.62 -1.37)	0.68
Widowed	57 (50.0)	57 (50.0)	1.53 (1.08 -2.18)	0.018*
Tribe				
Annang	125 (36.1)	221 (63.9)	Ref	
Ibibio	424 (53.7)	366 (46.3)	1.74 (1.31 -2.30)	<0.0001*
Igbo	57 (54.8)	47 (45.2)	1.91 (1.19 -3.06)	0.007*
Oron	206 (44.9)	253 (55.1)	0.99 (0.73 -1.35)	0.965
Others	15 (62.5)	9 (37.5)	2.47 (1.00 -6.10)	0.051
Substance use				
Yes	178 (40.6)	260 (59.4)	Ref	
No	240 (18.7)	1045 (81.3)	3.34 (2.58 -4.33)	<0.0001*
Alcohol use				
Yes	488 (59.9)	327 (40.1)	Ref	
No	339 (37.3)	569 (62.7)	1.79 (1.44 -2.30)	<0.0001*

rape or attempted rape by individuals who had agreed to pay for their services.

“...Ok one guy came to my workplace, and we arranged the amount that he was supposed to give me. After the business was finished, I told him pay me my money and he started harassing me and calling me ashawo (prostitute), I will not give you that money again. So, I dragged him to pay me my money and we engaged in violence...” GP

Most of the participants did not experience violence in healthcare facilities where they received treatment. However, some complained about the attitude of some healthcare providers in the hospital. They felt that the nurses harassed them.

Coping with Stigma and Violence of FSWs in Akwa Ibom State

Participants discussed coping with stigma and violence in their communities and workplaces. Many chose to withdraw from situations leading to violence or stigma, even avoiding friendships and social events. In severe cases, some quit their jobs to evade stigma or violence. Additionally, some reported perpetrators to authorities.

“...there was once like that in my community, there were three (3) guys, who abused me and started dragging me. We fought so the community boys there (the vigilante) came out. Because I was shouting for

help and arrested those boys. Those community boys work with police.” GOU, 26yrs.

At other times, some of the participants said they responded to violence with violence depending on the situation and sometimes would report to authorities around the area.

FGD Results for FSW With Children

This study also explored stigma as experienced by FSWs with children who are HIV positive and the violence that they experience. Coping mechanisms for stigma and violence were also explored for this group.

Sociodemographic characteristics of respondents

Four (4) Focused group discussions were conducted in 4 urban areas in Akwa Ibom. These were Ikot Ekpene, Eket, Uyo and Oron. A total of 39 participants participated in the discussion. The mean age of the participants was 31.1 years+5.5, with their ages ranging from 48 years to 23 years.

Stigma Faced by FSW With Children in Akwa Ibom State

Participants shared experiences of stigma at work, in their communities, among family members, and at health facilities where they receive treatment. Many participants recounted instances of stigma from spouses, relatives, and loved ones.

“...she (my mother) excluded me from family

meetings and let me say I don't benefit from what my siblings benefit in the family. So, she treated me differently and I felt very bad. At a point she was telling people that before my son gets to one year he will die. That my son is positive and the people she told were my distant relatives. So, they also joined in the stigmatisation..." CH, Uyo, 29yrs.

Participants reported no stigma at certain healthcare facilities they visited. They also discussed experiencing internalized stigma, with some expressing initial guilt and thoughts of self-harm. However, many stated that access to treatment encouraged them to live.

"Out of my carelessness, I will say it is not my fault o. it is not all about us; but from places we can get it from. It is not all about sexual intercourse; the process of fixing our nails, predisposes us; and it can be out of our carelessness..." EN, 29yrs.

Participants were questioned about potential stigmatization of their children due to their line of work. Some indicated they shielded their children from awareness of their occupation, with some admitting ignorance of events at their children's schools. Awareness of the mother's work or status varied by child's age, but most participants believed their children were not subjected to discrimination.

Experience of Violence among FSW With Children in Akwa Ibom State

Participants also discussed their experiences with violence—most of the cases of violence related to the work the participants were doing.

"...personally, I have been attacked severally. I can't wear a long skirt and go out. I have to wear what will make me attractive to men." FP 30yrs

Participants said that they experienced violence for reasons that boil down to their dressing to the use of drugs.

"...They used to attack us because some of us used to smoke. Our character is not good, the way we talk, our dress, our make-up, then they use to attack us. Even when we walk on the streets, they might easily rape us. Because of our dressing they can carry us on their necks to the bush to rape us" LB, 30yrs.

Some participants said they were occasionally victims of Police brutality, but this was directly related to their lifestyle.

"... police will pursue us; they'll pick us up and dump us in the cell. We will be dressed in our short skirts and bump shorts. The only thing is they'll collect our shoes."

Coping with Stigma and Violence of FSW With Children in Akwa Ibom State

Participants discussed coping mechanisms for stigma and violence, particularly regarding their children. Many tried to avoid situations where they faced stigma and violence. Others adopted unconventional lifestyles to alleviate stigma's effects.

"...I tried to look more beautiful and attractive than them." CH, 29yrs

Participants considered reporting their perpetrators to authorities or handlers. Some opted to ignore those causing stigma and responded with violence to those who acted violently.

DISCUSSION

This study reveals that commercial sex work is predominantly driven by young women below 30 years old (mean age 29.6 ± 6 years) who have completed at least secondary education, accounting for 63% of cases. Over 70% of the HIV-positive FSWs in the study have been on ARVs for more than six months, but approximately 27% reported missing a dose within the last seven days, termed self-reported non-adherence. This is comparable to findings in Papua New Guinea (26%)²⁵ but higher than in Uganda (17%)²⁶. Poor adherence led to poor treatment outcomes and increased transmission of HIV from this population of interest due to stigma and discrimination, especially from health workers; non-disclosure may be responsible for poor adherence.

About half of the respondents hadn't disclosed their HIV status to anyone, which can hinder social support and adherence. Among those who did disclose, 50% shared with family members, a common choice, particularly for unmarried individuals (92% in this study). Seventeen per cent of the respondents disclosed to their husband/sexual partner; disclosure to partners is higher among the general population²⁷ and pregnant women²⁸ than the KP.

Stigma

FSWs in the HIV program reported high levels of stigmatization, with 28% facing both internal and perceived stigma. This fear of judgment or prejudice may deter them from seeking HIV testing, treatment, and other healthcare services^{29,30}. In the FGD, participants highlighted stigma linked to their sexual practices, noting that HIV status isn't always visible. This misconception leads to increased discrimination against female sex workers, as it wrongly associates HIV solely with high-risk behaviors¹¹. This study reveals that young FSWs reported a high level of stigma; this is the reverse of what was reported in China, where older

women were more likely to report stigma 11; this may be attributed to older FSWs experiencing more stigma because of their low socio-economic status, less social support enduring structural inequities, and a disparate burden of familial support 29. Participants with no formal education and those with tertiary education experienced a high level of stigma at the bivariate level. Additionally, FSWs from outside the state reported higher stigma compared to those from within the state, exacerbating their stigma experiences.

Some studies have reported that FSWs experienced stigma from the health workers at the point of accessing care — 31,32; In the FGD, participants reported no stigmatization from health workers, possibly due to the supportive environment provided by the organization offering specialized HIV care. Ninety percent stated they were treated well without discrimination, contrasting with findings from other studies.

Most FSWs cope with stigma by ignoring people and avoiding familiar places, a passive/avoidant strategy. Others focus on their appearance and conceal their HIV status, a major reason for non-disclosure in this study.

Violence

FSWs experience high levels of violence globally; this study shows that 48% of the respondents have experienced physical violence, which is lower than the 61% reported in South Africa — 33. In this study, clients were the main perpetrators of violence in 56% of cases, as confirmed by the FGD. Violence typically occurred at the point of payment. In Kenya, client-perpetrated physical violence was reported in 52.3% of FSWs 34. In the Kenyan study, intimate partners caused 76% of violence, while in this study, they accounted for 15% of FSWs' physical violence. In Namibia, intimate partner violence affected about 61% of HIV-positive FSWs 35. Police were responsible for approximately 25% of physical violence cases, potentially limiting FSWs' access to sexual health services due to fear. Substance and alcohol abuse heightened FSWs' vulnerability to violence, mirroring findings in Kenya, where altered judgment due to substances made them more susceptible to harm from perpetrators 36. Being a widow increased vulnerability by 64% compared to single women. In Abuja, young age was linked to increased vulnerability to physical violence 1, potentially influenced by confounders. However, unlike the Abuja study, this research found no association between low education levels and violence 1.

About 24% of the participants in this study have been raped/sexually assaulted in the last 12 months; this is lower than the 49% reported in Abuja among FSWs 1. This difference may be due to the high level of exposure in the city; in Namibia, about 50% of FSWs newly diagnosed as HIV-positive experienced sexual violence 35. In this study, clients

perpetrated 37% of rapes, strangers 27%, and intimate partners 17%. FSWs under 21 were more vulnerable to rape, consistent with Abuja findings. Marriage increased vulnerability. Those with at least secondary education had a 60% lower risk of rape. Substance use also heightened rape risk, aligning with reports of alcohol increasing violence 37. Sexual violence has been reported to reduce access to HIV care and adherence.

Limitations

This study has notable limitations. Firstly, reliance on subjective self-reporting for stigma, disclosure, and adherence assessments may introduce social desirability bias, potentially impacting the accuracy of findings. Secondly, its cross-sectional design offers only a snapshot, limiting causal inference. Future research using longitudinal or experimental designs is needed for stronger evidence.

CONCLUSION

The study finds that HIV-positive FSWs experience substantial stigma, leading to high non-disclosure rates. Factors such as young age and recent diagnosis contribute to this stigma. Coping mechanisms vary, with some using avoidance while others focus on self-care. Sexual and physical violence rates are high, with factors like youth, marital status, and substance use increasing vulnerability. Widowed status and substance use escalate the risk of physical violence, often met with aggressive coping.

Building on the study's findings, several key recommendations emerge to address the challenges faced by HIV-positive FSWs.

1. Offer mental health support, counseling, and risk reduction strategies to help FSWs cope with stigma and stay on treatment.
2. Provide economic empowerment programs for financially vulnerable FSWs to reduce reliance on sex work.

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