

Gender-based Violence Among Sex Workers in Abuja, Nigeria: A Mixed-methods Cross-sectional Study

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Abstract

Gender-based violence (GBV) remains a major public health and human rights challenge worldwide, disproportionately affecting marginalized populations such as sex workers. In Nigeria, criminalization, stigma, and socio-economic vulnerability increase the risk of violence among sex workers, yet evidence from the Federal Capital Territory remains limited. This study aimed to assess the prevalence, typologies, determinants, and health impacts of gender-based violence among sex workers in Abuja, Nigeria. A mixed-methods cross-sectional study was conducted among 455 sex workers recruited from Gwagwalada, Bwari, and Abuja Municipal Area Council using cluster sampling techniques. Quantitative data were collected through structured interviewer-administered questionnaires and analyzed using descriptive statistics, chi-square tests, and multivariable logistic regression. Qualitative data were obtained through focus group discussions and analyzed thematically. The majority of respondents were females (74.94%), aged 25–34 years (31.42%), and engaged primarily in street-based sex work (37.38%). High prevalence rates of sexual violence (90.11%), physical violence (89.01%), and emotional/psychological violence (86.81%) were reported. Younger age (18–24 years), homelessness, societal stigma, criminalization of sex work, and lack of secure work environments were significant predictors of GBV ($p < 0.05$). Most respondents reported substantial adverse physical (83.52%) and mental health (81.32%) consequences resulting from violence. Gender-based violence among sex workers in Abuja is alarmingly prevalent and is strongly influenced by structural inequalities, social exclusion, and legal vulnerabilities. Comprehensive interventions involving legal reforms, social protection programs, mental health services, and community-based protection mechanisms are urgently needed to reduce violence and improve the well-being of sex workers.

Keywords: Gender-based violence; Sex workers; Nigeria; Public health; Violence determinants.

1. Introduction

1.1 Global Overview of Gender-Based Violence

Gender-based violence (GBV) is recognized globally as one of the most widespread violations of human rights and a major public health concern affecting millions of women and vulnerable populations worldwide (World Health Organization [WHO], 2021). GBV encompasses physical, sexual, emotional, psychological, and economic violence directed against individuals based on gender identity, gender expression, or socially constructed gender roles (United Nations Population Fund [UNFPA], 2020). The consequences of GBV extend beyond immediate physical harm, contributing significantly to mental illness, sexually transmitted infections, reproductive health complications, substance abuse, social exclusion, and mortality (Deering et al., 2014).

Globally, women and marginalized populations such as sex workers experience disproportionately high levels of violence due to intersecting social, legal, and economic vulnerabilities (Shannon et al., 2015). Approximately 40 million individuals engage in sex work worldwide, many of whom operate within highly criminalized and stigmatized environments that increase their exposure to violence and exploitation (UNAIDS, 2021). In sub-Saharan Africa, female sex workers face severe structural barriers including poverty, discrimination, limited access to healthcare, police harassment, and lack of legal protection (Scorgie et al., 2013).

1.2 Gender-Based Violence among Sex Workers in Nigeria

In Nigeria, GBV remains a critical social and public health issue. National reports indicate that approximately one in three women experiences physical violence before the age of 15 years (UNFPA, 2020). The situation is particularly severe among sex workers due to criminalization of sex work, widespread stigma, and institutional discrimination (Ochonye et al., 2023). Criminal laws against prostitution in Nigeria force sex work into clandestine and unsafe environments where violence from clients, law enforcement officers, brothel owners, and intimate partners frequently occurs with impunity (Banyan Global, 2021).

Socioeconomic instability remains a major driver of entry into sex work in many African countries. Poverty, unemployment, family responsibilities, limited educational opportunities, and gender inequality force many women and adolescents into transactional sex as a survival strategy (Shannon et al., 2015). In Nigeria, infrastructural deficits, low financial inclusion, and poor economic opportunities for women exacerbate vulnerability to exploitation and violence (Banyan Global, 2021).

2.3 Theoretical Perspectives and Determinants of Gender-Based Violence

Theoretical perspectives provide important explanations for the persistence of violence against sex workers. Feminist theory argues that patriarchal social structures normalize male dominance and violence against women, particularly those perceived to challenge traditional gender roles

(Connell, 2012). Resource theory further suggests that individuals with limited economic resources and social capital are more vulnerable to exploitation and abuse by those possessing greater economic power (Banyan Global, 2021). Structural violence theory explains how institutionalized inequalities, criminalization, and discriminatory policies systematically expose marginalized populations to harm and social exclusion (Farmer, 2004).

Previous studies conducted in African countries have documented alarming rates of violence among sex workers. Deering et al. (2014) reported strong associations between violence, HIV infection, mental illness, and poor healthcare access among sex workers globally. Similarly, Scorgie et al. (2013) highlighted the pervasive discrimination and abuse experienced by sex workers within healthcare systems in several African countries.

Recent evidence from sub-Saharan Africa demonstrates that sex workers experience disproportionately high levels of physical, sexual, and psychological violence compared with the general population. Studies conducted in Ethiopia, Kenya, Uganda, South Africa, and Nigeria have consistently identified criminalization, poverty, housing instability, stigma, and limited access to justice as major determinants of violence among sex workers (Baraki et al., 2024; Ochonye et al., 2023; Shannon et al., 2015). Violence has also been linked to adverse health outcomes including HIV infection, depression, anxiety, post-traumatic stress disorder, substance abuse, and poor utilization of healthcare services (Deering et al., 2014; WHO, 2023).

1.4 Empirical Evidence, Research Gap and Study Justification

Globally, increasing attention has been directed toward addressing structural drivers of violence through rights-based approaches, community empowerment interventions, and policy reforms aimed at improving safety and access to health and social services for sex workers. However, evidence from Nigeria remains limited, particularly in the Federal Capital Territory, highlighting the need for context-specific studies to inform policy and intervention strategies.

Despite increasing evidence on GBV among sex workers globally, limited studies have comprehensively examined the prevalence, typologies, and structural determinants of GBV among sex workers in Abuja, Nigeria. Existing studies have largely focused on HIV risk, stigma, and healthcare access, with relatively little attention paid to the patterns and drivers of violence experienced by this vulnerable population. Understanding these dynamics is essential for developing effective public health interventions, legal reforms, and social protection mechanisms aimed at reducing violence and improving the well-being of sex workers.

Therefore, this study aimed to assess the prevalence, typologies, and determinants of gender-based violence among sex workers in Abuja, Federal Capital Territory, Nigeria

2. Methods

2.1 Study Design

A mixed-methods cross-sectional study was conducted among sex workers operating in Abuja, Nigeria. The study combined quantitative and qualitative approaches to assess the prevalence, forms, determinants, and health consequences of gender-based violence among sex workers in selected area councils of the Federal Capital Territory (FCT), Nigeria.

2.2 Study Area

The study was conducted in three area councils of the Federal Capital Territory (FCT), namely: Gwagwalada, Bwari and Abuja Municipal Area Council (AMAC). These locations were selected to represent rural, semi-urban, and urban operational environments.

2.3 Study Population

The study population comprised active sex workers operating within the selected districts during the study period.

2.4 Sample Size and Sampling Technique

The minimum sample size was determined using Cochran's formula for estimating a single population proportion:

$$n = Z^2p(1-p)/d^2$$

Where:

- n = required sample size
- Z = standard normal deviate corresponding to 95% confidence level (1.96)
- p = estimated prevalence of GBV among sex workers. Since no recent prevalence estimate specific to Abuja was available, p = 0.50 was used to maximize sample size.
- d = margin of error (0.05)

Substituting the values:

$$n = (1.96)^2 \times 0.50 \times (1-0.50)/(0.05)^2$$

$$n = 384.16$$

Therefore, the minimum sample size was 384 participants. After adjusting for a 15% non-response rate, the final minimum sample size became 442 participants. A total of 455 participants were eventually recruited and included in the analysis.

2.5 Data Collection

Quantitative data were collected using structured interviewer-administered questionnaires assessing:

- Sociodemographic characteristics;
- Experiences of physical, sexual, and emotional violence;
- Work environment characteristics;
- Mental and physical health impacts.

The qualitative component involved five Focus Group Discussions (FGDs), each comprising nine participants, giving a total of 45 participants. The FGD participants were purposively selected from among respondents who had already participated in the quantitative survey (nested mixed-methods design). Discussions explored experiences of violence, perceptions of safety, barriers to reporting violence, interactions with law enforcement agencies, and coping mechanisms. Each FGD lasted approximately 60–90 minutes and was facilitated by trained research assistants using a semi-structured discussion guide. Discussions were audio-recorded with participant consent and subsequently transcribed verbatim.

To minimize interviewer bias, all research assistants received standardized training on interviewing techniques, confidentiality, and ethical conduct. Data collection was conducted in private and neutral locations identified in collaboration with community gatekeepers. No personal identifiers were collected. Participants were informed of their right to withdraw at any stage without consequences. Due to the sensitive nature of sex work in Nigeria, interviews were scheduled at times and locations considered safe by participants. Referral information for psychosocial support services was provided where necessary.

2.6 Data Analysis

Quantitative data were analyzed using SPSS version 23.0. Descriptive statistics, chi-square tests, and multivariable logistic regression analyses were performed. Statistical significance was set at $p < 0.05$. Qualitative data were analyzed using Braun and Clarke's six-step thematic analysis framework, including familiarization with data, coding, theme generation, theme review, theme definition, and report writing. Emerging themes were independently reviewed by two researchers to enhance credibility and trustworthiness.

2.7 Ethical Approval

Ethical approval for this study was obtained from the Research Ethics Committee of the Federal Medical Centre, Abuja, Nigeria prior to the commencement of data collection. Permission to conduct the study was also obtained from relevant local authorities and community gatekeepers within the selected study areas. Participation was entirely voluntary. Written informed consent was obtained from all participants before enrollment. No identifying information was collected, and all data were anonymized and stored on password-protected devices accessible only to the research team. Participants who disclosed ongoing violence or psychological distress were referred to appropriate healthcare providers, psychosocial support services, and Sexual Assault Referral Centres (SARCs) within Abuja. Participants were informed of their right to withdraw from the study at any stage without any consequences.

3. Results

3.1 Sociodemographic Characteristics of Respondents

A total of 455 subjects took part in this study. Table 1 presents the sociodemographic characteristics of respondents. The majority were females (74.94%), aged 25–34 years (31.42%), and primarily engaged in street-based sex work (37.38%).

Table 1. Sociodemographic Characteristics of Respondents (N = 455)

Variable	Frequency	Percentage (%)
Female	341	74.94
Male	102	22.41
Transgender	12	2.64
Age 25–34 years	143	31.42
Street-based sex work	170	37.38
Renting accommodation	322	70.76
Homeless	40	8.79

3.2 Prevalence of Gender-Based Violence

Figure 1 presents the distribution of different forms of gender-based violence experienced by respondents. There were high prevalence rates of violence among respondents. Sexual violence was the most commonly reported form of violence (90.11%), followed closely by physical violence (89.01%) and emotional abuse (86.81%).

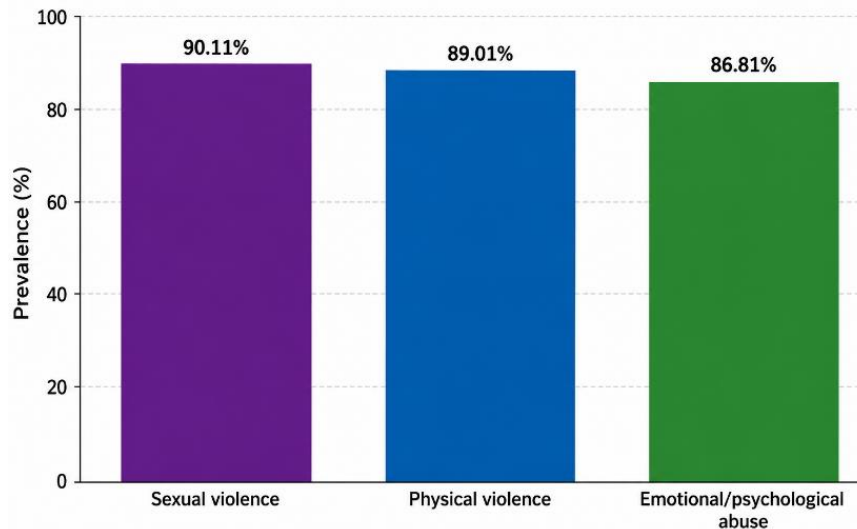


Figure 1. Distribution of types of gender-based violence experienced by respondents

3.3 Health Impacts of Gender-Based Violence

Table 2 shows the impact of GBV on respondents’ physical and mental health. Most respondents reported severe negative effects on both physical health (83.52%) and mental health (81.32%).

Table 2. Health impacts of gender-based violence

Impact	Frequency	Percentage (%)
Physical health impact	380	83.52
Mental health impact	370	81.32

3.4 Determinants of Gender-Based Violence

Table 3 presents the multivariable logistic regression analysis of factors associated with GBV among sex workers. Younger respondents aged 18–24 years were significantly more likely to experience violence (OR = 6.05; $p < 0.001$). Homelessness and societal stigma were also strong predictors of GBV.

Table 3. Multivariable logistic regression analysis of determinants of GBV

Predictor Variable	Odds Ratio (OR)	95% CI	p-value
Age 18–24 years	6.05	2.70–13.56	<0.001
Homelessness	2.72	1.70–4.20	<0.001
Shelter residence	1.65	1.05–2.59	<0.05
Societal stigma	3.49	1.76–7.01	<0.001
Criminalization of sex work	2.59	1.30–5.15	0.007

3.5 Work Environment and Violence

The absence of secure work environments and lack of regular working locations significantly increased the likelihood of sexual, physical, and emotional violence.

Table 4. Work environment predictors of gender-based violence

Work Environment Factor	Type of Violence	Odds Ratio (OR)	p-value
Lack of secure work environment	Sexual violence	2.34	0.007
Lack of secure work environment	Physical violence	1.92	0.043
Lack of regular working location	Sexual violence	3.00	0.002
Lack of regular working location	Emotional violence	3.16	0.001

4. Discussion

The present study revealed alarmingly high prevalence rates of gender-based violence among sex workers in Abuja, Nigeria. Sexual violence, physical violence, and emotional abuse affected the overwhelming majority of respondents, demonstrating that GBV remains deeply entrenched within the sex work environment. These findings are consistent with previous studies conducted

among sex workers in sub-Saharan Africa, which have documented severe levels of violence associated with criminalization, stigma, and economic vulnerability (Kerrigan et al., 2013; Deering et al., 2014; Shannon et al., 2015).

The prevalence of sexual violence observed in this study (90.11%) exceeds findings reported in several African countries. For example, Baraki et al. (2024) reported substantially lower rates among female sex workers in Ethiopia. The exceptionally high prevalence observed in Abuja may be attributed to the clandestine nature of sex work in Nigeria, where criminalization forces sex workers into unsafe environments lacking legal protection and security (Ochonye et al., 2023).

Young sex workers aged 18–24 years were significantly more vulnerable to GBV than older respondents. Similar findings have been reported in previous studies showing that younger sex workers possess limited negotiation skills, reduced social support, and lower economic power, increasing their susceptibility to violence and exploitation (Shannon et al., 2015). Economic desperation may also compel younger individuals to accept unsafe clients and hazardous working conditions.

Housing instability emerged as another important determinant of violence. Homeless respondents experienced significantly higher odds of GBV compared to those with stable housing. This finding aligns with structural violence theory, which emphasizes how poverty, homelessness, and social exclusion systematically increase exposure to violence among marginalized populations (Farmer, 2004). Street-based sex workers lacking secure accommodation often operate in isolated locations where protection mechanisms are minimal.

The study further demonstrated that societal stigma and criminalization of sex work significantly contribute to GBV. Sex workers operating within criminalized systems frequently avoid reporting violence due to fear of arrest, discrimination, and police harassment (Scorgie et al., 2013). In Nigeria, law enforcement agents themselves have been identified as perpetrators of violence and extortion against sex workers (Ochonye et al., 2023). Such institutional violence perpetuates impunity and discourages access to healthcare and justice services.

Emotional and psychological abuse were also highly prevalent among respondents. Persistent verbal humiliation, threats, intimidation, and social rejection contribute substantially to poor mental health outcomes among sex workers. The high prevalence of mental health impacts observed in this study corroborates findings by Bass et al. (2013), who reported strong associations between violence exposure and depression, anxiety, and post-traumatic stress disorder among survivors of sexual violence.

Overall, the findings of this study demonstrate that GBV among sex workers in Abuja is not merely an interpersonal issue but a manifestation of structural inequalities, legal marginalization, and socio-economic vulnerability. Addressing this crisis requires comprehensive interventions including legal reforms, decriminalization policies, social protection programs, mental health

support services, community empowerment initiatives, and improved access to healthcare and justice systems.

5. Study Limitations

This study has several limitations that should be considered when interpreting the findings. First, the cross-sectional design limits the ability to establish causal relationships between identified determinants and experiences of gender-based violence. Second, data were self-reported and may therefore be subject to recall bias and social desirability bias, particularly given the sensitive nature of sex work and violence. Third, because sex work remains highly stigmatized and criminalized in Nigeria, some participants may have underreported certain experiences due to fear of disclosure or legal repercussions. Finally, although the study included participants from multiple area councils within Abuja, the findings may not be fully generalizable to all sex workers in Nigeria. Despite these limitations, the mixed-methods approach enhanced the depth and credibility of the findings by combining quantitative evidence with qualitative insights into participants' lived experiences.

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Data Availability

The datasets generated and/or analyzed during the current study are available from the corresponding author upon reasonable request.

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