

# Domestic Violence: The Pre- and Post-diagnosis Experience of Women Living with HIV in a Rural Community in Northwest Nigeria

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## Abstract

**Background:** Domestic violence (DV) is a fundamental human right problem. Stigma and discrimination increase the incidence and affects care. **Objectives:** This study aimed at determining the prevalence, types of DV pre- and post-diagnosis of human immunodeficiency virus (HIV), perpetrators, and the response to it in a rural community in Northwest Nigeria. **Materials and Methods:** A descriptive and cross-sectional study of 261 women was done. The sample was selected by proportionate allocation and systematic sampling. Data of respondents were obtained employing an interviewer-administered questionnaire. The analysis was done using Chi-square, Fishers exact, and McNemar's tests. **Results:** Less than one-quarter of respondents, 60 (23.0%) and 62 (23.8%), had experienced at least one form of DV pre -and post-diagnosis, respectively. The types observed were mainly verbal (44/60 [73.4] and 55/62 [88.7]) and psychological (43/60 [71.6%] and 40/62 [64.5%]) pre- and post-diagnosis, respectively. The difference in the experience of DV pre- and post-diagnosis was not statistically significant. Majority of the perpetrators were the current husband ( $n = 37$ ; 59.7%) and siblings ( $n = 9$ ; 14.5%); educational level and occupation were significantly associated with the occurrence of DV ( $P < 0.05$ ). **Conclusion:** Although the prevalence of DV among women living with HIV was high, the pre- and post-diagnoses of violence experienced were the same. DV should be included as part of the care and management of this group of women.

**Keywords:** Domestic violence, human immunodeficiency virus, Nigeria, women

## INTRODUCTION

Domestic violence (DV) is a form of violence against women occurring within the family and is a well-recognized violation of human rights and a public health issue. It is defined as “a confrontation between family or household members that typically involves physical harm, sexual assault, or fear of physical harm.”<sup>[1]</sup> DV remains a global issue and cuts across all types of families irrespective of social, racial, economic, or religious background and place of residence. In Nigeria, it has been variously reported among various high-risk groups in different settings.<sup>[2-8]</sup> However, in recent times, there have been mounting pieces of evidence from various studies suggesting that the increasing number of new human immunodeficiency virus (HIV) infection among women is being fueled by violence against women and girls.<sup>[9-15]</sup> This may be possible through forced sexual intercourse with an infected partner,

limited or conceding negotiation of safer sex practices and increased sexual risk taking action.<sup>[12]</sup> Furthermore, HIV puts a woman at risk of violence from her partner and family following disclosure of her status,<sup>[3,16]</sup> particularly in Africa where the extended family system (which may include spouses, children, uncles, cousins, aunts, and grandparents) is widely practised.

Globally, there is a paucity of information on DV among women living with HIV (WLWHIV); however, few available reports

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suggest that the scope is large. The women's interagency HIV study from the United States of America revealed a prevalence of 66% of which about half of the survivors had experienced childhood sexual abuse.<sup>[17]</sup> In India, 42% was reported, of which 69% of the survivors had experienced psychological violence, 29% were physical, while 1% had sexual violence.<sup>[18]</sup> Similarly, in Tanzania, 29.8% of WLWHIV had experienced DV, of which 45.7% were verbal, 37.6% were physical, and 16.3% were sexual in nature.<sup>[14]</sup> Furthermore, in Nigeria, 22% of WLWHIV had also experienced DV, of which 59.3% were verbal, 30% were physical, while 10.7% were psychological. Irrespective of the type of DV observed, it is imperative to note that the survivors may also suffer self-humiliation, stigmatization, and social discrimination which creates a complex barrier to accessing health care.<sup>[19,20]</sup>

At the end of 2018, an average of 37.9 million people were living with HIV, and about 1.7 million people became newly infected, a decline from the previous years, though. The increase in the number of people living with HIV was attributed to improved surveillance and increase access to antiretroviral therapy.<sup>[21,22]</sup> Disproportionately, sub-Saharan Africa accounts for over two-third (71%) of these new infections with women in this region accounting for 58% of all the adults living with HIV infection.<sup>[22]</sup> In 2019, the prevalence in Nigeria was 1.4% which is 1.9 million people infected with HIV, highest after South Africa.<sup>[23]</sup>

In spite of the above, only a few reports on DV among WLWHIV have been documented in Nigeria. It is important to note that many of these reports are restricted to intimate partner violence (IPV), among WLWHIV of which varies from 23.6% in Osogbo to 65.8% in Lagos.<sup>[24,25]</sup> DV is of fervent interest among this group as the fear of anticipated violence against them may prevent status disclosure to their partners who may significantly influence seeking of treatment and other reproductive health services such as prevention of mother-to-child transmission (PMTCT) of HIV and birth control. Interestingly, there has been no report on DV among WLWHIV from the rural part of Northern Nigeria. The findings from this study would raise awareness among health-care workers, inform policymakers, and may assist in planning interventions to reduce the prevalence and the associated consequences of DV among WLWHIV in this rural community.

We, therefore, sought to determine the prevalence, common types of DV among WLWHIV before and after been diagnosed with the infection, perpetrators, and response to it postdiagnosis with HIV in a rural community in Northwest Nigeria.

## MATERIALS AND METHODS

### Study setting and subjects

This study was carried out at the clinics of two hospitals in Birnin Kudu, Jigawa State, located in the Northwest geopolitical zone of the country: Federal Medical Centre and the General Hospital. Birnin Kudu is the headquarter of Birnin Kudu Local Government Area in the South of Jigawa State of

Nigeria. In 2016, it had a projected population of 419,800.<sup>[26]</sup> The inhabitants are predominantly Muslims and of Hausa/Fulani ethnicity. Their major occupation is farming.

The Federal Medical Centre is a 250-bedded tertiary health facility. It is a designated center for the PMTCT of HIV. The general hospital is a secondary health facility funded by the state government. The hospital is a 180-bedded facility that provides free maternity care services and PMTCT of HIV services.

### Subjects

The study population consisted of WLWHIV who attended both hospitals from June 20, to August 15, 2018, and consented to participate in the study. Those who were critically ill and did not reside in the community of study were excluded from the study.

### Study design

The study was descriptive and cross-sectional in design.

### Sample size

The sample size was obtained using Fisher's formula for estimating sample size in health studies,<sup>[27]</sup> and the following item measures were used: 95% confidence level, an estimated prevalence of DV among WLWHIV of 22.1% in Kano,<sup>[28]</sup> and a 5% margin of error. The computed sample size was inflated by 10% to account for anticipated subject nonresponse. The minimum sample size for the study was 290.

### Sampling technique

The clinic register of each facility was assessed to determine the average monthly attendance. The aggregated attendance for 3 months was used as the sampling frame for the tertiary facility and secondary facility as 550 and 207, respectively. Thus, a ratio of 1:3 was obtained. A sample size of 211 and 79 was allotted to the tertiary and secondary facility, respectively. A systematic sampling technique was used to recruit consenting clients as they arrived at the clinics. The sampling interval was determined as 3 and used for each health facility. The first respondent was selected by picking a random number between 1 and 3 for each health facility. Successive participants were ascertained by including the sampling interval to the previous participants' serial number. This was repeated until the sample size assigned to each health facility was attained.

### Research instrument and data collection

A structured interviewer-administered questionnaire adapted from the 2013 Nigerian Demographic and Health Survey (NDHS) was used.<sup>[1]</sup> The instrument assessed the sociodemographic characteristics, the occurrence of DV prior to the diagnosis of HIV and afterward, the factors influencing DV among WLWHIV. The questionnaire was in the English language, but another version in the Hausa language was made available for natives who did not understand the English language. It was validated by Measure Demographic and Health Survey and used for the NDHS in 2013; the questionnaire was pretested for internal validity in another

general hospital in one of the rural communities in the state. A total of 30 questionnaires were pretested. The questionnaires were administered by four female research assistants who were also HIV positive. They were trained for 2 days, each lasting for 3 h. The administration of questionnaires was supervised by the principal researcher. Two hundred and ninety respondents were approached to participate, and 261 (90.0%) agreed, giving a response rate of 90%. One hundred and eighty-seven (71.6%) were recruited from the tertiary health facility and 74 (28.4%) were from the secondary health facility.

### Data management

The data obtained were analyzed using IBM SPSS version 23.0 (IBM Corporation, Armonk, NY, USA). Qualitative variables were summarized using frequencies and percentages, while quantitative variables were summarized using the mean and standard deviation. The relationship between sociodemographic characteristics and the occurrence of DV was established using Chi-square and Fisher's test. Statistical significance was considered to be achieved at  $P \leq 0.05$ . The prevalence of DV was expressed as the number of women who have had at least one form of DV over the preceding 12 months as a percentage of all respondents.

### Ethical consideration

The study proposal was approved by the Ethics and Research Committee of the Federal Medical Centre, Birnin Kudu, and written informed consent was also obtained from all the participants. They were assured of confidentiality, and the anonymity of the questionnaire and that their participation was voluntary.

## RESULTS

The age ranged from 16 to 65 years with a mean of  $32.5 \pm 9.1$ , while the parity ranged from 0 to 12. Majority (197 [75.5%]) were married, 103 (52.3.0%) were in a monogamous relationship, and 251 (96.2%) were of the Islamic faith. Two hundred and forty-two (77.1%) were of Hausa ethnicity. One hundred and forty-two (54.4%) had a quranic form of education only, 37 (14.2%) had no form of education, 30 (11.5%) had primary education, while 27 (10.3%) and 25 (9.6%) had secondary and tertiary, respectively [Table 1].

Less than one quarter, 60 (23.0%) and 62 (23.8%) had at least one form of violence prediagnosis, as shown in Table 2.

The prevalence of the forms of DV before and after HIV infection was not significantly different, as shown in Table 3.

Having only informal education and not being employed were significantly associated with the occurrence of DV ( $P < 0.05$ ), as demonstrated in Table 4.

The identified perpetrators of DV postdiagnosis included current husband, siblings, and others, as shown in Table 5.

Majority of the survivors reported the incident and sought support help from their own family ( $n = 25$ ; 40.3%), while others sought support elsewhere, as shown in Table 6.

**Table 1: Sociodemographic characteristics**

Sociodemographic	n (%)
Age	
<20	16 (6.1)
20-29	92 (35.2)
30-39	108 (41.4)
40-49	28 (10.7)
≤0	17 (6.5)
Parity	
0	23 (8.8)
1	40 (15.3)
2	33 (12.6)
3	33 (12.6)
4	29 (11.1)
≤5	103 (39.5)
Ethnicity	
Hausa	212 (81.3)
Fulani	40 (15.3)
Others	9 (3.4)
Occupation	
Trading	113 (43.3)
Housewife	82 (31.4)
Tailoring	31 (11.9)
Teaching	15 (5.7)
Unemployed	8 (3.1)
Others	20 (7.7)

**Table 2: Types of domestic violence pre- and post-human immunodeficiency virus infection**

Types of violence	Frequency, n (%)	
	Prediagnosis (n=60)	Postdiagnosis (n=62)
Physical		
Slap	5 (8.3)	6 (9.7)
Push/shake	0 (0)	4 (6.5)
Punch	5 (8.3)	0 (0)
Pull hair/twist arm	0 (0)	0 (0)
Kick/drag	0 (0)	4 (6.5)
Choke/burn	0 (0)	0 (0)
Threatened with weapon	0 (0)	0 (0)
Psychological/emotional violence		
Threatened to hurt	0 (0)	0 (0)
Hurt feelings deliberately	43 (71.7)	40 (64.5)
Insult/abuse (verbal violence)	44 (73.3)	55 (88.7)
Sexual violence		
Physically forced intercourse	25 (41.7)	11 (17.7)
Avoid having intercourse	7 (11.7)	11 (17.7)
Forced with threat to have intercourse	0 (0)	0 (0)

## DISCUSSION

DV among WLWHIV is an underreported reproductive health concern.<sup>[28]</sup> In this study, about one of every four WLWHIV had been abused (either by her partner or a family member)

**Table 3: Comparison of the types of domestic violence experienced**

Types of DV	DV before HIV infection (%)	DV after diagnosing HIV infection (%)	McNemar's test ( $\chi^2$ )	P
Verbal	73.3	88.7		0.14
Physical	23.3	22.6		0.42
Psychological	71.6	64.5		0.76
Sexual	53.3	35.5		0.58

HIV: Human immunodeficiency virus, DV: Domestic violence

**Table 4: Association between sociodemographic characteristics and domestic violence among women living with human immunodeficiency virus**

Sociodemographic characteristic	Domestic violence		Chi-square test	P
	Yes, n (%)	No, n (%)		
Age group (years)				
<30	31 (28.7)	77 (71.3)	2.49	0.11
≥30	31 (20.3)	122 (79.7)		
Ethnicity			Fisher's	0.69
Hausa/fulani	61 (98.4)	191 (96.0)		
Others	1 (1.6)	8 (4.0)		
Religion			Fisher's	1.00
Islam	60 (96.8)	191 (96.0)		
Christianity	2 (3.2)	8 (4.0)		
Occupation			8.6	0.003
Unemployed	32 (51.6)	62 (31.2)		
Employed	30 (48.4)	137 (68.8)		
Education			0.55	0.02
Informal	50 (80.6)	129 (64.8)		
Formal	12 (19.4)	70 (35.2)		
Parity			0.13	0.94
0	6 (9.7)	17 (8.5)		
1-4	31 (50.0)	104 (52.3)		
≥5	25 (40.3)	78 (39.2)		
Marriage status			0.89	0.34
Married	44 (71.0)	153 (76.9)		
Un married	18 (29.0)	46 (23.1)		

**Table 5: Perpetrators of domestic violence among women living with human immunodeficiency virus (n=62)**

Perpetrator*	Frequency, n (%)
Current husband	37 (59.7)
Siblings	9 (14.5)
Former husband	7 (11.3)
Co wives	7 (11.3)
Parents	7 (11.3)
Relatives	4 (6.5)
Friends	4 (6.5)

\*Multiple responses

before or after being diagnosed HIV positive. This prevalence is high, and it is similar to the 22.6% reported from Kano city,<sup>[24]</sup> which is in the same geopolitical zone and shares similar sociocultural values as the study area. Although in comparison to Kano which is an urban city, one would have expected the prevalence of DV among WLWHIV to be lower, as it is believed that women living in this rural community are

unlikely to report violence<sup>[3]</sup> and have a lower HIV disease burden.<sup>[29]</sup> It is pertinent to mention that there are very few reports on DV among WLWHIV in Nigeria and the majority of the available reports are limited to IPV among WLWHIV which may not be comparable with DV. However, bearing in mind that the majority of the perpetrators of DV in this study are the husbands, it may be worthwhile to compare the prevalence of IPV among WLWHIV with the prevalence of DV among WLWHIV. The 23.8% prevalence of DV from this study is < 32.5% from Benin and the 65.8% from Lagos,<sup>[10,24]</sup> as both are cities in the Southern part of Nigeria and have similar sociocultural practices that differ from the Northern part of the country where polygamy, purdah (the practice of female seclusion), forced early marriages, preference for large family size, and resistance to family planning are common.<sup>[3,28,30]</sup> These may actually influence reporting of DV by the survivors. Interestingly, a prevalence of 23.6% which is similar to the prevalence from this study was reported from Osogbo in Southwest Nigeria suggesting that differing socio-cultural

**Table 6: Response to domestic violence among women living with human immunodeficiency virus (n=62)**

Sources of support*	Frequency (%)
Own family	33 (53.2)
Nobody	25 (40.3)
Husband's family	22 (35.5)
Neighbors	4 (6.5)
Health care worker	4 (6.5)

\*Multiple responses

practices alone may not explain the differences observed but rather the interplay of factors such as educational attainment, occupation<sup>[31]</sup> in addition to sociocultural issues.

Interestingly, though the types of DV reported were different before and after HIV diagnosis, the difference was not statistically significant, and verbal violence was the most common, while physical form was the least common. This implies that most of these women that reported DV following their diagnosis as HIV positive had been undergoing one form of violence before the detection of HIV and the type experienced might have been modified following the diagnosis. The physical form of violence was the least common (23.3%) which was in contrast to the study from Kano<sup>[28]</sup> where it was the most common (59.7%), while sexual violence that was reported in 35.5% of the participants was remarkably absent in the study. This may possibly be attributed to a lower level of enlightenment and empowerment among women in Birnin kudu which may influence the ability to negotiate sexual relations compared to women resident in Kano city.<sup>[32]</sup>

The perpetrators of DV in this study are essentially the husbands, accounting for six of ten perpetrators. This is in keeping with the study in Kano where 51.1% of the perpetrators were also the husbands though lower than this study. Polygamy has been documented as one of the predictors of DV in Northern Nigeria;<sup>[3]</sup> hence, it is of the essence to mention that co-wives were perpetrators in about 10% of the cases in this study, and it is similar to the 14.1% reported from Kano.<sup>[28]</sup>

The high prevalence of DV witnessed among WLWHIV in the community might be a "tip of the iceberg," as four out of ten cases were not reported. This is not surprising as the majority of survivors solely depend on their husbands for their livelihood who may also be the perpetrator of violence; hence, DV is often not discussed. This may also explain why women in this study who were full-time housewives and did not have any occupation as well as those with no formal education were significantly more likely to experience DV after they were diagnosed with HIV infection. This is consistent and similar to reports from Kano.<sup>[28]</sup>

It is essential that health-care workers in the community attending to WLWHIV should be informed about the high prevalence of DV among these women and that most of the cases are unreported. It is crucial for all health workers to have a high index of suspicion regarding DV among all women and not only those presumed to be at risk.

Policymakers need to fortify the prevailing laws on violence and make it all inclusive.

## CONCLUSION

Although the prevalence of DV among WLWHIV was high, the pre- and post-diagnoses of violence experienced were the same. DV should be included as part of the care and management of this group of women.

## Limitations

The 29 nonresponders (10%) may be different from the participants, while the latter may possibly have had recall bias in completing the questionnaire. Furthermore, due to the sensitive nature of DV in Northern Nigeria, especially among WLWHIV, the participants may not have responded correctly for fear of reprisal although they were assured of confidentiality by the research assistants who are female volunteers, HIV positive, and were trained on questionnaire administration technique. In spite of these limitations, useful information regarding DV among women living with HIV in a rural community in Northern Nigeria was generated from the participants that were fairly representative. They were pooled from women receiving care at two different levels of care, tertiary and secondary health care. The services offered by the secondary health-care facility were highly subsidized and hence patronized by clients from all socioeconomic classes in the community, especially the low socioeconomic class.

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## Conflicts of interest

There are no conflicts of interest.

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