

Prevalence and Correlates of Intimate Partner Violence among Women with Infertility In Ibadan, Nigeria

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Abstract

Background: Intimate Partner Violence (IPV) is a prevalent form of violence against women, encompassing physical, sexual, and emotional abuse, as well as controlling behaviors by an intimate partner. In Africa, where a high value is placed on childbearing, infertile women face an increased risk of IPV. This study aims to assess the prevalence and correlates of IPV among infertile women in Ibadan, Nigeria.

Methods: A cross-sectional study was conducted among infertile women who attended the gynaecological clinic at the University College Hospital Ibadan. A semi-structured was administered to 377 women visiting the clinic from May to July 2019. Data analysis included descriptive statistics, Chi-square tests, and logistic regression with a significance level set at $p < 0.05$.

Results: Mean age was 34.79 ± 7.72 years with most (47.5%) aged 24-34 years and 86.5% in monogamous marriages. The majority (79.3%) had encountered at least one form of IPV: 71.4% emotional violence, 59.4% physical IPV and 35.8% sexual violence. Predictors of IPV were secondary education (OR=3.953, 95% CI: 2.04-7.65), marriage duration of 10-20 years (OR=2.152, 95% CI: 1.08-4.29), infertility duration of 10-19 years (OR=16.326, 95% CI: 6.75-39.50), partners aged 35-45 years (OR=8.041, 95% CI: 3.76-17.20) and partners who consumed alcohol (OR=1.778, 95% CI: 1.044-3.028). **Conclusion:** There was a high prevalence of IPV, with long-term infertility being a major predictor. Alcohol consumption by partners was also associated with higher odds of IPV. Screening for IPV in infertile women, especially those with prolonged infertility, is recommended during medical consultations. Additionally, couple counseling programs that include violence prevention components are advocated.

Keywords: Intimate Partner Violence, Infertility, Prevalence, Risk Factors

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Abstrait

Contexte: La violence conjugale (VPI) est une forme répandue de violence contre les femmes, englobant la violence physique, sexuelle et émotionnelle, ainsi que le comportement contrôlant d'un partenaire intime. En Afrique, où une grande valeur est accordée à la procréation, les femmes stériles sont confrontées à un risque accru de violence conjugale. Cette étude vise à évaluer la prévalence et les corrélats de la VPI chez les femmes infertiles à Ibadan, au Nigeria.

Méthodes: Une étude transversale a été menée auprès de femmes infertiles qui fréquentaient la clinique gynécologique de l'hôpital universitaire d'Ibadan. Une étude semi-structurée a été administrée à 377 femmes visitant la clinique de mai à juillet 2019. L'analyse des données comprenait des statistiques descriptives, des tests du Chi carré et une régression logistique avec un niveau de signification fixé à $p < 0.05$.

Résultats: L'âge moyen était de 34.79 ± 7.72 ans, la plupart (47.5%) étant âgés de 24 à 34 ans et 86.5% dans les mariages monogames. La majorité (79.3%) avait été confrontée à au moins une forme de VPI: 71.4% de violence émotionnelle, 59.4% de VPI physique et 35.8% de violence sexuelle. Les prédicteurs de la VPI étaient l'éducation secondaire (OR=3.953, IC à 95% : 2.04-7.65), la durée du mariage de 10 à 20 ans (OR=2.152, IC à 95% : 1.08-4.29), la durée de l'infertilité de 10 à 19 ans (OR=16.326, IC 95% : 6.75-39.50), les partenaires âgés de 35-45 ans (OR=8.041, IC 95% : 3.76-17.20) et les partenaires ayant consommé de l'alcool (OR=1.778, IC 95% : 1.044-3.028).

Conclusion: Il y avait une forte prévalence de VPI, l'infertilité à long terme étant un prédicteur majeur. La consommation d'alcool par les partenaires était également associée à un risque plus élevé de VPI. Le dépistage des VPI chez les femmes infertiles, notamment celles présentant une stérilité prolongée, est recommandé lors des consultations médicales. De plus, des programmes de conseil aux couples incluant des éléments de prévention de la violence sont préconisés.

Mots clés: violence conjugale, infertilité, prévalence, facteurs de risque

Introduction

Intimate Partner Violence (IPV) is a widespread issue affecting women, encompassing physical, sexual, and emotional abuse, as well as controlling behaviors by an intimate partner [1]. IPV is one of the most common forms of violence against women. According to the World Health Organization (WHO), while women can also be violent in relationships, the vast majority of partner violence is committed by men against women [2]. IPV manifests in various forms, including physical aggression, psychological abuse, forced intercourse, and other forms of sexual coercion, as well as controlling behaviors such as isolating a person from family and friends or restricting access to information and assistance [2].

Globally, 35% of women have experienced either IPV or non-partner sexual violence at some point in their lives [3]. More than one-third (36%) have experienced physical, sexual, or emotional IPV by their current or most recent husband/partner [4]. Reports from a nationally representative survey in Nigeria have estimated that more than one-third (36%) of women have experienced either physical, sexual or emotional IPV by their current or most recent husband/partner [4]. Previous smaller studies from Nigeria have shown the prevalence of IPV to range from 31 to 61% for psychological/emotional violence, 20 to 31% for sexual violence, and 7 to 31% for physical violence [5]. Other studies conducted in the different regions of Nigeria have reported a prevalence of IPV ranging from 42% in the North, 29% in the South West, 78.8% in the South East, to 41% in the South-South [6-8].

Infertility is another significant public health issue, affecting a substantial portion of the global population. It impacts approximately one in six couples at some stage in their lives and affects 10-15% of couples worldwide [9-10]. The World Health Organization defines infertility as a disease of the reproductive system characterized by the failure to achieve a pregnancy after 12 months or more of regular unprotected sexual intercourse [3,11]. Infertility can be a highly stressful, emotional, and frustrating experience, particularly for women, leading to various psychosocial challenges [12]. The pressures from family and society to have children (especially in Africa) can exacerbate these challenges, sometimes resulting in intimate partner violence [13]. While IPV has been documented among pregnant or parous women [14-15], IPV against women without children remains underexplored, particularly in Africa. Given the high value placed on fertility in Nigeria, this study aims to fill this gap by

examining the prevalence and correlates of IPV among infertile women in Ibadan, Nigeria. The results of this study will offer evidence to bolster the formulation of key actions in future research, policy-making and interventions for IPV prevention.

Methodology

This cross-sectional study was conducted at the gynecological clinic of the University College Hospital, Ibadan, Nigeria, from May to July 2019. The University College Hospital, Ibadan, established in 1957 is a 1,000-bed facility, with occupancy rates ranging from 65-70%. The sample size was calculated to be 377 using the Leslie-Kish formula for cross-sectional studies [16]. The study population consisted of women with infertility who attended the clinic. A total population of eligible women who attended the clinic within the study period were recruited into the study until the sample size was attained. Infertility was defined according to the World Health Organization's criteria as the inability to achieve pregnancy after 12 months or more of regular unprotected sexual intercourse [3]. Women aged 15-49 years, diagnosed with primary or secondary infertility, and attending the clinic were included in the study.

The research tool was a self-administered semi-structured questionnaire with sections for obtaining information on socio-demographic characteristics and the experience of IPV across domains as well as in relation to infertility. Research assistants were available to distribute and collate questionnaires and answer any questions the respondents had. The data obtained were cleaned and recoded as appropriate. Data were entered into the computer and analyzed using the Statistical Package for Social Sciences (SPSS version 21.0). Data analysis was carried out using both descriptive and inferential statistics. The dependent variable was the experience of IPV while sociodemographic characteristics served as the independent variables. Chi-square test was used to test the statistical associations between categorical variables at a 5% level of significance. Multivariate analysis using binary logistic regression was used to identify predictors of the experience of IPV. The independent variables entered into the logistic regression model were those that were significant on bivariate analysis.

Ethical clearance was obtained from the UI/UCH Ethics Review Board (approval number UI/EC/19/0034). Informed written consent was obtained from each respondent after a careful explanation of the purpose and content of the research were made

known to the participants. Administration of the questionnaires was carried out in a quiet and comfortable setting due to the sensitive nature of the questions. Serial numbers were used for identification of respondents with no use of names or addresses. This was to ensure that the data collected was not linked to any respondent. The completed questionnaires were kept secure and the data extracted were kept on a password-protected device with limited access.

Results

The mean age of the respondents was 34.79 ± 7.72 years. Most participants (47.5%) were aged 24-34 years, and 86.5% were in monogamous marriages. More than half (59.9%) had tertiary education, and the majority (72.9%) were Yoruba. Nearly half (48.8%) were civil servants, and only 3.2% were unemployed. Most respondents (88.9%) were in their first marriage, with about half (49.9%) having been married for 10-20 years. A minority (11.4%) had been married for over 20 years. Most respondents (74.3%) were formally married, while 25.7% were in cohabiting relationships. The socio-demographic characteristics of the respondents are highlighted in Table 1.

Table 2 summarizes the sociodemographic information obtained from respondents about their partners. This showed that most (55.4%) of the partners, were aged 35-45 years, and 74.5% had tertiary education. Most spouses were traders (43.5%), 32.1% were civil servants and 44.6% earned ₦100,000 to ₦200,000 per month. Lifestyle habits of the respondents' partners showed that 41.4% currently took alcohol, a few (5%) of the respondents reported that their partners used drugs like cannabis and cocaine.

Table 3 summarizes the experience of IPV among the respondents. More than half (59.4%) of the respondents had experienced physical IPV, 71.4% emotional, 35.8% experienced sexual and 79.3% experienced at least one of these categories of IPV.

Table 4 shows the association between sociodemographic characteristics and the experience of IPV among the respondents. Those in polygamous marriages, those without formal education, those of the Islamic religion and those of the Yoruba tribe were significantly more likely to experience IPV. ($p < 0.001$). Likewise, occupation, duration of marriage, duration of infertility, educational level of partner and alcohol use by partner were also significantly associated with the experience of IPV.

The predictors of the experience of IPV are highlighted in Table 5. Respondents who had secondary education were about 4 times more likely to experience IPV than those with tertiary education (OR=3.953, CI: 2.043, 7.649). Respondents with a marriage duration of 10-20 years were twice as likely to experience IPV compared to those who had been married for less than 10 years (OR=2.152, CI:1.080, 4.288). Infertility duration also predicted the experience of IPV with those with an infertility duration of 10-19 years being 16 times more likely to experience IPV compared to those with an infertility duration of less than 10 years (OR=16.326, CI:6.748,39.500). Respondents, whose partners were aged 35-45 years, were 8 times more likely to experience IPV compared to those whose partners were aged 46 years or above (OR=8.041, CI: 3.759, 17.199). Respondents whose spouses took alcohol were 1.8 times more likely to experience IPV than those whose partners did not take alcohol (OR=1.778, CI: 1.044, 3.028).

Discussion

This study contributes to a growing body of research seeking to investigate the prevalence and correlates of IPV against women with infertility who form a considerably large vulnerable group. In this study, the majority of respondents had experienced at least one of the categories of IPV and there was a significant association between several sociodemographic characteristics and intimate partner violence among these infertile women. This is similar to the results of a study conducted in India that reported that the majority of the infertile women interviewed had experienced violence [17]. Generally, in male-dominated societies, women are often held responsible for infertility, irrespective of the actual cause hence women are often punished psychologically, socially, and economically due to this belief. Furthermore, men are more likely to become violent when their masculinity is threatened by infertility, particularly when the wife is perceived as responsible [18-20]. Previous studies have linked intimate partner violence and infertility. Yildizhan and colleagues found the prevalence of intimate partner violence against infertile women to be 33.6%. Of these women, 78% had experienced intimate partner violence for the first time in a relationship with their current partner following a diagnosis of female factor infertility [19]. Previous studies on women with infertility have also shown that 41.6% of women in Nigeria, 64% in Pakistan, 61.8% in Iran, and 77.8% women in India experienced IPV in their marriages

Table 1: Sociodemographic characteristics of respondents

Variables	N=377	%
Age		
24-34 years	179	47.5
35-45 years	174	46.2
46 years or above	24	6.4
Marital status		
Married	280	74.3
Cohabiting	97	25.7
Type of marriage/relationship		
Monogamous	326	86.5
Polygamous	51	13.5
Education level		
No formal education	6	1.6
Primary	18	4.8
Secondary	127	33.7
Tertiary	226	59.9
Religion		
Christian	176	46.7
Islam	201	53.3
Tribe		
Yoruba	275	72.9
Hausa	24	6.4
Igbo	78	20.7
Occupation		
Unemployed	12	3.2
Trader	130	34.5
Artisan	51	13.5
Civil servant	184	48.8
First marriage		
No	42	11.1
Yes	335	88.9
Age at marriage		
20-25 years	286	75.9
26 years or above	91	24.1
Marriage or Relationship duration (years)		
less than 10 years	146	38.7
10-20 years	188	49.9
more than 20 years	43	11.4
Average monthly income (N)		
less than 50, 000	72	19.1
50, 000-100, 000	157	41.6
more than 100, 000	148	39.3

because of infertility [17-18, 20-22]. Concerning patterns of IPV experienced, the majority of respondents in this study experienced emotional IPV, more than half of the participants had experienced physical IPV, and about a third had experienced sexual violence. The findings of this study showed a higher prevalence than the findings of a study

conducted in India which observed that 34% of respondents had suffered emotional violence while 11% and 5% had experienced physical and sexual violence respectively [23]. The differences observed here might perhaps be attributable to the differences in the cultural acceptance of IPV as in India there have been reports of IPV being culturally acceptable

Table 2: Respondents Partner Information

Variables	N=377	%
Spouse/Partner's age (years)		
24-34 years	95	25.2
35-45 years	209	55.4
46 years or above	73	19.4
Spouse/Partner's Education Level		
Primary	6	1.6
Secondary	90	23.9
Tertiary	281	74.5
Spouse/Partner's Occupation		
Trading	164	43.5
Artisan	92	24.4
civil servant	121	32.1
Spouse/Partner's monthly income		
<100,000	122	32.4
100,000-200,000	168	44.6
more than 200,000	87	23.0
Current husband/partner drinks alcohol		
No	221	58.6
Yes	156	41.4
How often does he drink alcohol (N=156)		
Everyday	30	19.2
once or twice a week	95	60.9
one to three times a week	31	19.9
Current partner takes drugs such as cannabis		
No	358	95.0
Yes	19	5.0
How often does he use drugs? (N=19)		
Once in a month	12	63.2
Never	7	36.8

Table 3: Experience of IPV among respondents

Variables	N=377	%
Physical IPV		
No	153	40.6
Yes	224	59.4
Emotional IPV		
No	108	28.6
Yes	269	71.4
Sexual IPV		
No	242	64.2
Yes	135	35.8
Experienced any IPV		
No	78	20.7
Yes	299	79.3

[24,25]. However, the findings of this study on physical violence are consistent with the study conducted in Egypt where it was observed that half of the respondents had experienced physical violence [26]. In this present study, the findings on sexual violence were lower than that observed in a study in Egypt where 45.7% of the respondents had experienced sexual violence [26]. Again, cultural acceptance of intimate partner violence may play a role in the differences observed and this has been reported in the literature [27-29]. Additionally, social desirability bias cannot be ruled out as sexual violence is associated with shame and is not readily spoken about in Nigeria. Emotional violence was the most common form of IPV experienced in this study accounting for more than 50% of cases among the women who had experienced violence in the past year. Forms of emotional violence experienced included insults, humiliation, belittling, and intimidation

Table 4: Relationship between respondent characteristics and the experience of IPV

Variables	Experience of IPV		×2	P-value
	Yes n (%)	No n (%)		
Age (years)			0.316	0.854
24-34 years	43(24.0)	136(76.0)		
35-45 years	42(24.1)	132(75.9)		
46 years or above	7(29.2)	17(70.8)		
Type of marriage			25.079	<0.001*
Monogamous	67(20.9)	253(79.1)		
Polygamous	25(55.6)	20(44.4)		
Education level			31.144	<0.001*
No formal education	6(100.0)	0(0.0)		
Primary	18(100.0)	0(0.0)		
Secondary	86(67.7)	41(32.3)		
Tertiary	45(19.9)	181(80.1)		
Religion			35.959	<0.001*
Christian	158(89.8)	18(10.2)		
Islam	127(63.2)	74(36.8)		
Tribe			15.087	0.001*
Yoruba	195(70.9)	80(29.1)		
Hausa	18(75.0)	6(25.0)		
Igbo	72(92.3)	6(7.7)		
Occupation			19.844	<0.001*
Not working	12(100.0)	0(0.0)		
Trading	82(63.1)	48(36.9)		
Artisan	39(76.5)	12(23.5)		
Civil servant	32(17.4)	152(82.6)		
First marriage			10.991	0.001*
No	13(54.2)	11(45.8)		
Yes	256(76.4)	79(23.6)		
Age at marriage			2.939	0.086
20-25 years	207(72.4)	79(27.6)		
26 years or above	60(82.2)	13(17.8)		
Marriage or Relationship duration			11.483	0.003*
Less than 10 years	121(82.9)	25(17.1)		
10-20 years	128(68.1)	60(31.9)		
More than 20 years	36(83.7)	7(16.3)		
Average monthly income (₦)			1.329	0.249
≤100, 000	167(77.0)	50(23.0)		
> 100, 000	106(71.6)	42(28.4)		
Partners' age			5.471	0.065
24-34 years	77(81.1)	18(18.9)		
35-45 years	160(76.6)	49(23.4)		
46 years or above	48(65.8)	25(34.2)		
Infertility duration			6.698	0.035*
Less than 10 years	115(82.1)	25(17.9)		
10-19 years	120(74.1)	42(25.9)		
20 years or above	50(66.7)	25(33.3)		
Marital status			47.349#	<0.001*
Married	213(76.1)	67(23.9)		
Cohabiting	72(74.2)	25(25.8)		
Partner's education level			15.641#	<0.001*
Primary	0(0.0)	6(100.0)		
Secondary	67(74.4)	23(25.6)		
Tertiary	218(77.6)	63(22.4)		
Alcohol use by spouse/partner			8.438	0.004*
Yes	106(67.9)	50(32.1)		
No	179(81.0)	42(19.0)		

#- Fisher's exact

*- significant

Table 5: Logistic regression model for the predictors of IPV among respondents

Variables	Odd ratio	95% CI for Odds Ratio		p-value
		Lower	Upper	
Type of marriage/relationship				
Monogamous	1.032	0.000	1.412	0.997
Polygamous	1			
Education level				
No formal education	0.919	0.001	1.501	0.999
Primary	0.994	0.020	1.712	0.998
Secondary	3.953	2.043	7.649	0.000*
Tertiary	1			
Religion				
Christian	0.044	0.019	0.106	0.000*
Islam	1			
Tribe				
Yoruba	7.000	3.901	12.561	0.000*
Hausa	0.857	0.343	2.141	0.741
Igbo	1			
Occupation				
Not working	0.000	0.000	1.901	0.998
Trading	0.860	0.476	1.554	0.618
Artisan	0.633	0.297	1.348	0.236
Civil servant	1			
First marriage				
Yes	0.918	0.000	1.801	0.998
No	1			
Age at marriage				
20-25 years	1.901	1.018	3.552	0.044*
26 years or above	1			
Marriage/Relationship duration				
More than 20 years	0.912	0.000	1.021	0.994
10-20 years	2.152	1.080	4.288	0.029*
Less than 10 years	1			
Average monthly income				
> 100,000	9.045	3.792	21.575	0.000*
100,000	1			
Partners' age				
24-34 years	0.618	0.328	1.166	0.137
35-45 years	8.041	3.759	17.199	0.000*
46 years or above	1			
Infertility duration				
20 years or above	1.988	1.059	3.733	0.032*
10-19 years	16.326	6.748	39.500	0.000*
Less than 10 years	1			
Marital status				
Married	5.118	2.461	10.642	0.000*
Cohabiting	1			
Partner's education level				
Primary	1.012	0.292	2.730	0.999
Secondary	4.823	2.020	11.517	0.000*
Tertiary	1			
Alcohol use by spouse				
Yes	1.778	1.044	3.028	0.033*
No				

*- significant

either by scare tactics or threats of violence. Comparable to our results, a study carried out on women with infertility in Iran observed that 74.3% of the respondents had experienced emotional violence [30]. Similar observations were made in a study conducted in Nigeria which found the prevalence of emotional violence to be 51.5% among women with infertility as well as in a study conducted on infertile women in Karachi, Pakistan where the prevalence of emotional violence was found to be 60.8 [21-22]. Research suggests that physical violence in intimate relationships is often accompanied by emotional abuse and in one-third to over half of cases by sexual abuse [31]. A much higher prevalence of emotional violence was reported in North Central Nigeria among infertile women, compared to the findings of this study with almost all the respondents of that study reporting their experience of emotional violence [32]. Regional disparities in the prevalence of IPV have been reported in Nigeria as a result of community norms and beliefs [33].

In this study, alcohol use by the respondents' partners was associated with increased odds of experiencing IPV. Similar to what was observed in this study, higher odds of intimate partner violence in the presence of alcohol use by a partner have been found by other researchers as well [34-36]. Age, education, income, marriage duration, infertility duration, partner educational level, and alcohol use of the partner were all predictors of the experience of IPV in this study. It was observed in this study that women with low educational status were more likely to experience IPV than other women with higher educational status. This is similar to studies by researchers in Nigeria, India and Iran on infertile women which showed that the level of women's education was associated with intimate partner violence [32,37-38]. Uneducated women are less likely to question traditional gender roles and cultural tolerance of IPV and as such are not in a position to reject violence that is perpetrated against them by their husbands.

This study further revealed that women whose husbands were solely responsible for the upkeep of the family were more likely to experience violence. This is because unemployed women are more likely to be dependent on their husbands for financial needs thereby making them vulnerable to being abused. Infertile women who married at a younger age were also more likely to have experienced intimate partner violence in this study. This is similar to a study conducted among infertile

women in Iran which concluded that women who married at younger ages were more likely to experience IPV [30]. In this study, it was also observed that there was an association between longer duration of marriage (10-20 years), duration of infertility (10-19 years), and the experience of IPV similar to the report of research conducted among infertile women in Iran and Egypt [36,39]. This may be because as the duration of marriage increases, the duration of infertility increases and so do expectations and pressures. This may impair the quality of marital relationships and can lead to violence.

In sum, from the findings of this study, the prevalence of IPV was relatively high among these women with infertility. Healthcare providers should screen for violence among women with infertility during consultations to provide/direct them to appropriate support services needed to prevent and protect them against violence.

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