



Prevalence and Predictors of Intimate Partner Violence Among Pregnant Women Accessing Antenatal Care in Lagos.

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Abstract

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Background: Intimate partner violence (IPV) among pregnant women is a critical human rights and public health issue, affecting both mothers and their unborn children. This study aimed to assess the prevalence of IPV among pregnant women accessing antenatal care in Lagos, Nigeria and identify potential predictors. **Methods:** A descriptive cross-sectional study was conducted involving pregnant women of all gestational ages from randomly selected health facilities within a senatorial district of Lagos. Data were collected through a structured, interviewer-administered questionnaire and analysed using IBM SPSS version 25 with a significance threshold of $p < 0.05$. **Results:** Out of 460 participants, complete data were gathered from 417, with a mean age of 31.1 years. The findings revealed that approximately 22.5% of women experienced IPV in the year before pregnancy, with a prevalence of 19.7% reported during the current pregnancy. Psychological abuse was the most frequently encountered type of IPV. Key risk factors identified included unplanned pregnancies, exposure to violence during childhood, and a history of abuse in the preceding year. Women who had previously faced IPV were 96 times more likely to experience it during pregnancy ($p < 0.001$). Additionally, controlling behaviour exhibited by male partners increased the odds of IPV by 5 times. **Conclusion:** This study highlights the high prevalence of IPV among pregnant women and emphasises the urgent need for increased awareness, advocacy, and integrated surveillance programs within antenatal care to combat this pressing public health concern.

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INTRODUCTION

Violence against women, particularly intimate partner violence (IPV), is a significant global issue affecting women from all backgrounds.¹ Intimate partner violence (IPV) among pregnant women is a critical human rights and public health issue, affecting both mothers and their unborn children. IPV includes physical, sexual, and emotional abuse, with one in three women experiencing

it in their lifetime.² Pregnant women are especially vulnerable, facing increased risks of complications such as miscarriage and mental health disorders like depression.³⁻⁶ In Nigeria, IPV rates during pregnancy are alarmingly high, prompting the State Government to establish the Domestic and Sexual Violence Agency (DSVA) in 2021 to address this issue.⁷ This study aimed to assess the prevalence of IPV among pregnant women

accessing antenatal care in Lagos, Nigeria and identify potential predictors.

MATERIALS AND METHODS

Study Area

This multi-centre study was conducted within one of the three senatorial districts in Lagos, Nigeria. Each senatorial district has an average of one tertiary healthcare facility and multiple secondary and primary healthcare facilities.

Study Design

The descriptive cross-sectional study was conducted from May 2024 to October 2024.

Study Population

The study population comprised pregnant women attending antenatal check-ups at tertiary, secondary, and/or Primary healthcare facilities.

Characteristics of the Participants

The inclusion criteria were women aged 18 years or more, registered at an antenatal clinic (ANC) during pregnancy, and able to understand and write English or any of the local languages.

Sample Size and Sampling Technique

A power calculation determined that a minimum of 460 participants was necessary to achieve 90% power and a 95% confidence interval (CI) for the statistical analysis. This calculation accounted for a 20% non-response rate, and the prevalence of Intimate Partner Violence (IPV) among pregnant women was assumed to be 50%.

Stratified random sampling was used to select one tertiary, secondary, and primary healthcare facility from the selected senatorial district. Based on ANC enrollees/attendees in the selected healthcare facilities during the previous year, the sample size for each healthcare facility was proportionally allocated. This included a Tertiary Health care facility (180), a Secondary Health care facility (180), and a Primary Health care facility (100).

Systematic random sampling was used to select participants in each centre. The sampling interval was calculated by dividing the estimated number of pregnant women attending each health care facility in the study period by the allocated sample size. Finally, participants

were selected from every nth pregnant woman who came to the health care facility for ANC services.

Data Collection Tools and Techniques

The questionnaires were primarily developed by adapting questions from the WHO Multi-Country Study on Women's Health and Life Experiences, the Women Abuse Screening Tool (WAST), the Abuse Assessment Screen (AAS), and the HITS tools.⁸⁻¹⁰ The questionnaire was pretested on 20 women who had given birth at a different institution to ensure language clarity and appropriateness, and to reduce bias. No revisions were deemed necessary after the pretest.

Pregnant women received verbal and written information about the study from their midwives. Only those eligible pregnant women who agreed to participate were included in the study and invited to complete the questionnaires in a private space at their ANC facility. Trained female data collectors and supervisors were recruited per WHO ethical guidelines based on their prior experience in data collection and proficiency in the local languages. They were available to assist participants who were not fluent in or literate in English, ensuring that back-translation was provided when necessary.

The data collection instrument collected information on sociodemographic variables, partner characteristics, and details related to events from the previous 12 months and the most recent pregnancy. The questionnaire contained 31 items focusing on women's experiences with their companions or spouses over the past 12 months and during the current pregnancy. The questions addressed various behaviours, including physical, psychological, economic, and sexual violence (SV).

Ethical Consideration

This study was conducted in accordance with the ethical guidelines outlined in the Declaration of Helsinki. Approval was obtained from the Health Research Ethics Committee of the health institutions where the study took place, ensuring compliance with general ethical research principles.

The women were addressed by the nurse on duty, who provided them with information about the study. Those who volunteered to participate were given all necessary details and asked to sign a consent form. The questionnaires were completed in a designated private space, away from their partners. The anonymity and confidentiality of the data were guaranteed. Participants were informed that their involvement was voluntary and that they could withdraw at any point without any negative consequences or impact on their care.

Upon completion of the questionnaire, the forms were placed in a sealed envelope and then deposited in a closed box, ensuring the confidentiality of their responses.

Data Analysis

Data were entered into SPSS (version 26), where data checking, cleaning, and recoding were performed before further analysis. Descriptive statistics were used to summarise the data, including frequencies, proportions, mean, and median. Bivariate analysis was conducted using the chi-square test to examine the association between intimate partner violence (IPV) during pregnancy and the independent variables.

For statistically significant variables ($p < 0.05$) in the bivariate analysis, a multivariate analysis was performed using binary logistic regression after checking for multicollinearity. The odds ratio (OR) with 95% confidence intervals (CI) was calculated to assess the strength of the relationship between IPV during pregnancy and the independent variables. Statistical significance was considered at a p-value of less than 0.05.

RESULTS

A total of 680 women were potential participants across the 3 centres during the study period, of whom 460 met the inclusion criteria and consented to participate. Of these, data for 417 were complete and were analysed.

Demographic and Social Characteristics of Participants

The mean age of pregnant women was 31.1 years (± 4.9 SD), with 246 (59.0%) aged at least 30 years. Most participants (297, 71.2%) identified as Christians and belonged to the Yoruba ethnic group (61.2%). Nearly all participants (99.1%) were married, while most (69.5%) had completed tertiary education. 200 (48.0%) participants reported being self-employed, while 44.1% were employed by government or private institutions. Almost all participants (95.4%) reported entering their marriages voluntarily, and more than half (55.4%) resided in a monogamous household. The majority (84.7%) described their current pregnancy as planned, and 26.4% reported having witnessed violence between their parents as a child. Ninety-four participants (22.5%) disclosed experiencing intimate partner violence before their current pregnancy. The remaining results are presented in Table 1.

Table 1: Socio-demographic characteristics of the study participants (pregnant women attending ANC)

Characteristics	Total n= 417 Frequency - n/percentage (%)
Age (Years)	29 (7.0)
< 25 years	142 (34.0)
25-29 years	246 (59.0)
≥ 30 years	Mean= 31.1 years Std dev.= 4.9; Range 22-46 years
Religious status	
Christianity	297 (71.2)
Islam	120 (28.8)
Traditional	0 (0.0)
Others	0 (0.0)
Ethnicity	
Yoruba	255 (61.2)
Ibo	87 (20.8)
Hausa	25 (6.0)
Others	50 (12.0)
Highest level of education	
None	15 (3.6)
Primary	9 (2.2)
Secondary	103 (24.7)
Tertiary	290 (69.5)
Marital status	
Single	3 (0.7)
Married	413 (99.1)
Separated	1 (0.2)
Occupational status	
Unemployed	33 (7.9)
Self-employed	200 (48.0)
Employed (by the government)	47 (11.2)
Employed (by Private)	137 (32.9)
Type of marriage	
Arrange by family/others	17 (4.1)
Self-love between couple	400 (95.9)
Voluntariness of marriage	
Voluntary	398 (95.4)
Forced	19 (4.6)
Type of family	
Monogamy	231 (55.4)
Polygamy (first wife)	156 (37.4)
Polygamy (second wife)	26 (6.2)
Polygamy ($\geq$ third wife)	4 (1.0)
The size of the family she stays	
2	144 (34.5)
3-4	201 (48.2)
≥ 5	72 (17.3)
History of previous childbirth	
Yes	249 (59.7)
No	168 (40.3)
History of past miscarriages/stillbirths	
Yes	106 (25.4)
No	311 (74.6)
Planned (current)pregnancy	
Yes	353 (84.7)
No	64 (15.3)
History of witnessing violence between parents as a child	
Yes	110 (26.4)
No	307 (73.6)
History of IPV within 12 months before the current pregnancy	
Yes	94 (22.5)
No	323 (77.5)

IPV, Intimate Partner Violence

Demographic and Social Characteristics of the Participant's spouse/partner

Spouses/partners of participants were mainly at least 35 years (64.0%) with a mean age of 37.3 years (± 5.9 SD). Most of them (80.1%) had completed tertiary education. Over two-thirds of them did not consume alcohol, while more than 90% of women reported that their spouses did not use either tobacco or other psychoactive substances. However, 59 participants (14.1%) experienced at least one form of controlling behaviour from their husbands. The remaining results are shown in Table 2.

Prevalence of Intimate Partner Violence (IPV) During Pregnancy

Table 1 shows the prevalence of IPV during the current pregnancy amongst participants. The prevalence of IPV during pregnancy, irrespective of type or severity of IPV, was found to be 19.7% (n= 82). Psychological violence was the most prevalent type, affecting 9.8% of participants, followed by physical violence (4.8%), sexual violence (3.4%), and economic violence (3.4%), as detailed in Table 3

Association Between Possible Socio-Demographic Factors and Exposure to Intimate Partner Violence in Pregnant Women

A Chi-square test of independence was performed to evaluate the relationship between socio-demographic factors and exposure to intimate partner violence during pregnancy. The results indicated a significant relationship between experiencing IPV during pregnancy and women who did not plan their pregnancy ($p= 0.039$), women who witnessed violence between their parents as a child ($p=0.025$), and women who experienced any form or type of IPV in the year before their pregnancy ($p<0.001$). Detailed results can be found in Table 4.

Association Between Intimate Partner Violence in Pregnant Women and Their Spouse/Partner's Sociodemographic Factors

This relationship was explored using the Chi-square test. The results showed a significant relationship between intimate partner violence in pregnant women and their spouse's level of education ($p=0.035$), their spouse's alcohol use ($p<0.001$), their spouse's fighting with other people ($p=0.024$), and their spouse's controlling them ($p<0.001$). The remaining results are presented in Table 5.

Table 2: Socio-demography of the spouse/ partner of study participants (pregnant women attending ANC)

Characteristics	Total number= 417 Frequency -n/percentage (%)
Age (years) 25- 34 ≥ 35	150 (36.0) 267 (64.0) Mean= 37.3 years Standard deviation= 5.9 Range 27-60 years
Highest level of education None Primary Secondary Tertiary	 12 (2.9) 2 (0.5) 69 (16.5) 334 (80.1)
Highest level of education None Primary Secondary Tertiary	 12 (2.9) 2 (0.5) 69 (16.5) 334 (80.1)
Occupational status Unemployed Self-employed Employed (by the government Employed (by private)	 2 (0.5) 150 (36.0) 102 (24.5) 163 (39.0)
History of alcohol use as perceived by the participant No Yes I don't know	 285 (68.4) 121 (29.0) 11 (2.6)
History of tobacco use as perceived by the participant No Yes I don't know	 394 (94.5) 16 (3.8) 7 (1.7)
History of other psychoactive substance use as perceived by the participant No Yes I don't know	 394 (94.5) 5 (1.2) 18 (4.3)
History of fighting other people as perceived by the participant No Yes I don't know	 389 (93.3) 6 (1.4) 22 (5.3)
Partner/spouse controlling behaviour as perceived by the participant Yes No	 59 (14.1) 358(85.9)

Table 3: Prevalence of types of Intimate Partner Violence experienced by participants during the current pregnancy

Types of Intimate Partner Violence	Total number= 417 Frequency - n/percentage (%)
Physical violence	
Slapped you or threw something at you think that could hurt you?	8 (1.9)
Pushed you or shoved you, or pulled your hair?	3 (0.7)
Hit you with his fist or with something else that could hurt you?	6 (1.4)
Kicked you, dragged you, or beat you up?	3 (0.7)
Choked/Squeezed your neck or burnt you on purpose?	4 (1.0)
Threatened to use or used a gun, knife, or other weapon against you?	2 (0.5)
Frequency of at least one episode of physical violence	20 (4.8)
Sexual violence	
Forced you to have sexual intercourse against your will?	8 (1.9)
Did you ever have sexual intercourse that you did not want to because you were afraid of what your partner might do?	5 (1.2)
Did your partner or any other partner Ever forced you to do something sexual?	2 (0.5)
That you found degrading or Humiliating?	14 (3.4)
Frequency of at least one episode of sexual violence	
Psychological violence.	
Has your partner ever insulted you or made you feel bad about yourself?	35 (8.4)
Belittled or ridiculed you in front of other people?	13 (3.1)
Did things scare or intimidate you on purpose (e.g., by the way he looked at you, by yelling and smashing things)?	9 (2.2)
Threatened to hurt you or someone you care about?	9 (2.2)
Frequency of at least one episode of psychological violence	41 (9.8)
Economic violence/neglect	
Has your partner ever taken your earnings or savings from you against your will?	1 (0.2)
Refused to give you money for household expenses, even when he has money for other things?	13 (3.1)
Frequency of at least one episode of economic violence	14 (3.4)
Total for any type of Intimate partner violence during the current pregnancy	82(19.7)

Independent Predictors of Intimate Partner Violence in Pregnant Women

To identify the independent predictors of experiencing IPV during pregnancy among women, we used a binary logistic regression analysis. The analysis of the data showed that the full logistic regression model, including all seven predictors, was statistically significant ($\chi^2 (11) = 276.343$, $p < 0.001$), indicating that the independent variables significantly predicted the outcome variable (i.e., intimate partner violence).

Nagelkerke's R^2 estimates indicated that the whole model explained 77.0% of the variance in the dependent variable from the independent variables. The model correctly classified 92.7% of respondents who had experienced IPV during their current pregnancy and 95.2% of those who had not, with an overall classification accuracy of 94.7%.

Among the seven variables significantly associated with IPV in pregnant women on bivariate analysis, pregnant women who had experienced IPV before becoming pregnant had the highest odds. They were 96 times more likely to experience IPV during pregnancy ($p < 0.001$; OR= 96.194, CI= 30.071-307.712) than women who did not experience IPV before becoming pregnant. Also, pregnant women who reported having experienced at least one type of their spouse's controlling behaviour were 5 times more likely to experience IPV during pregnancy ($p = 0.006$; OR=5.186, CI=1.597-16.841) than pregnant women who had not experienced any form of spousal controlling behaviour. The remaining results are shown in Table 6.

DISCUSSION

Intimate partner violence in obstetrics is a great threat to a mother, her unborn baby, her family and the nation. It transcends all walks of life and is not excluded by race, culture, religion or ethnicity. Pregnancy represents a critical and vulnerable period during which women are particularly susceptible to intimate partner violence (IPV), resulting from various forms of physical, emotional, and socioeconomic dependency. Nonetheless, this period also offers a significant opportunity to identify IPV through timely and appropriate interactions with healthcare professionals, enabling targeted care as needed.

In this study, we observed that most of the participants and their spouses were 30 years or older, had tertiary education, and had some form of employment. The prevalence of intimate partner violence in pregnancy was 19.7%, irrespective of severity. The most common form of abuse was psychological (9.8%), followed by physical (4.8%) and sexual (3.4%). The prevalence of IPV in this study is higher than what was

Table 4: Test of association between exposure to IPV during pregnancy and socio-demographic factors of participants (pregnant women)

Sociodemographic variables	Total	Experience of IPV		Test of significance
	N= 417	No (n=335)	Yes (n=82)	
		n (%)	n (%)	
Age (Years)				
< 25 years	29	21 (6.3)	8 (9.8)	$\chi^2= 1.543$
25-29 years	142	117 (34.9)	25 (30.5)	df= 2
≥ 30 years	246	197 (58.8)	49 (59.8)	$p= 0.462$
Religious status				
Christianity	297	239 (71.7)	58 (70.7)	$\chi^2= 0.012$
Islam	120	96 (28.7)	24 (29.3)	df= 1
				$p= 0.893$
Ethnicity				
Yoruba	255	212 (63.3)	43 (52.4)	$\chi^2= 4.781$
Ibo	87	66 (19.7)	21 (25.6)	df= 3
Hausa	25	21 (6.3)	4 (4.9)	$p= 0.189$
Others	50	36 (10.7)	14 (17.1)	
Highest level of education				
None	15	12 (3.6)	3 (3.7)	$\chi^2= 0.156$
Primary	9	7 (2.1)	2 (2.4)	df= 3
Secondary	103	84 (25.1)	19 (23.2)	$p= 0.984$
Tertiary	290	232 (69.3)	58 (70.7)	
Marital status				
Single	3	3 (0.9)	0 (0.0)	$\chi^2= 0.989$
Married	413	331 (98.8)	82 (100.0)	df= 2
Separated	1	1 (0.3)	0 (0.0)	$p= 0.610$
Occupational status				
Unemployed	33	30 (9.0)	3 (3.7)	$\chi^2= 4.031$
Self-employed	200	155 (46.3)	45 (54.9)	df= 3
Employed (by the government)	47	40 (11.9)	7 (8.5)	$p= 0.258$
Employed (by Private)	137	110 (32.8)	27 (32.9)	
Voluntariness of marriage				
Voluntary	398	320 (95.5)	78 (95.1)	$\chi^2= 0.024^*$
Forced	19	15 (4.5)	4 (4.9)	df= 1
				$p= 0.775$
Type of family				
Monogamy	231	182 (54.3)	49 (59.7)	$\chi^2= 1.745$
Polygamy (first wife)	156	127 (37.9)	29 (35.4)	df= 3
Polygamy (second wife)	26	22 (6.6)	4 (4.9)	$p= 0.627$
Polygamy ($\geq$ third wife)	4	4 (1.2)	0 (0.0)	
The size of the family she stays				
2	144	115 (34.3)	29 (35.4)	$\chi^2= 0.156$
3-4	201	163 (48.7)	38 (46.3)	df= 2
≥ 5	72	57 (17.0)	15 (18.3)	$p= 0.925$
History of past miscarriages/stillbirths				$\chi^2= 2.735^*$
Yes	106	91 (27.2)	15 (18.3)	df= 1
No	311	244 (72.8)	67 (81.7)	$p= 0.119$
Planned (current)pregnancy				
Yes	353	290 (86.6)	63 (76.8)	$\chi^2= 4.808^*$
No	64	45 (13.4)	19 (23.2)	df= 1
				$p= 0.039$
History of witnessing violence between parents as a child				$\chi^2= 5.475^*$
Yes	110	80 (23.9)	30 (36.6)	df= 1
No	307	255 (76.1)	52 (63.4)	$p= 0.025$
History of IPV in the past 12 months before the current pregnancy				$\chi^2= 287.601^*$
Yes	323	317 (94.6)	6 (7.3)	df= 1
No	94	18 (5.4%)	76 (92.7)	$p<0.001$

IPV, Intimate Partner Violence; *, Fisher's exact test (we employed Fisher's exact test if <5 in any group)

Table 5: Test of association between exposure to IPV during pregnancy and socio-demographic factors of spouse/partner participants

Sociodemographic variables	Total	Experience of IPV		Test of significance
	N= 417	No (n=335)	Yes (n=82)	
		n (%)	n (%)	
Age (years)				
25- 34	150	120 (35.8)	30 (36.6)	$\chi^2= 0.017^*$ df= 1; $p= 0.898$
≥ 35	267	215 (64.2)	52 (63.4)	
Highest level of education				
None	12	9 (2.7)	3 (3.7)	$\chi^2= 8.621$ df= 3 $p= 0.035$
Primary	2	0 (0.0)	2 (2.4)	
Secondary	69	57 (17.0)	12 (14.6)	
Tertiary	334	269 (80.3)	65 (79.3)	
Occupational status				
Unemployed	2	2 (0.6)	0 (0.0)	$\chi^2= 4.652$ df= 3 $p= 0.199$
Self-employed	150	121 (36.1)	29 (35.4)	
Employed (by the government)	102	88 (26.3)	14 (17.1)	
Employed (by private)	163	124 (37.0)	39 (47.5)	
History of alcohol use as perceived by the participant				
No	285	237 (70.7)	48 (58.5)	$\chi^2= 15.438$ df= 2 $p<0.001$
Yes	121	94 (28.1)	27 (32.9)	
I don't know	11	4 (1.2)	7 (8.6)	
History of tobacco use as perceived by the participant				
No	394	317 (94.6)	77 (93.9)	$\chi^2= 2.907$ df= 2 $p= 0.083$
Yes	16	14 (4.2)	2 (2.4)	
I don't know	7	4 (1.2)	3 (3.7)	
History of other psychoactive substance use as perceived by the participant				
No	394	320 (95.5)	74 (90.3)	$\chi^2= 4.406$ df= 2 $p= 0.110$
Yes	5	4 (1.2)	1 (1.2)	
I don't know	18	11 (3.3)	7 (8.5)	
History of fighting other people as perceived by the participant				
No				$\chi^2= 7.486$ df= 2 $p<0.024$
Yes	389	318 (94.9)	71 (86.6)	
I don't know	6	4 (1.2)	2 (2.4)	
Partner/spouse controlling behaviour as perceived by the participant	22	13 (3.9)	9 (11.0)	$\chi^2= 214.178$ df= 1 $p<0.001$
Yes	59	6 (1.8)	53 (64.6)	
No	358	329 (98.2)	29 (35.4)	

IPV, Intimate Partner Violence; *, Fisher's exact test (we employed Fisher's exact test if <5 in any group)

Table 6: Summary of the multiple binary regression analysis showing factors that independently predict the experience of Intimate Partner Violence (IPV) during pregnancy

Socio-demographic Predictors	Experienced Intimate Partner Violence				
	B	SE	p	OR	95% CI
History of witnessing violence between parents as a child				1.000	
No (Reference)	0.061	0.507	0.904	1.063	0.394-2.871
Yes					
Planned (current)pregnancy				1.000	
No (Reference)					
Yes	0.413	0.567	0.467	1.511	0.497-4.595
History of IPV within 12 months before the current pregnancy				1	
No (Reference)	4.566	0.593	<0.001	96.194	30.071-307.712
Yes					
History of alcohol use as perceived by the participant			0.170		
No (Reference)				1	
Yes	-0.890	0.533	0.095	0.411	0.144-1.168
I don't know	0.706	1.501	0.638	2.027	0.107-38.424
Highest level of education			0.967		
None (Reference)				1	
Primary	20.109	27330.5	0.999	541210	000-
Secondary	0.023	1.980	0.991	1.024	0.021-49.644
Tertiary	0.329	1.932	0.864	1.389	0.032-60.189
History of fighting other people as perceived by the participant			0.734		
I don't know (Reference)				1	
Yes	-0.761	1.743	0.662	0.467	0.015-14.227
No	-0.184	1.917	0.924	0.832	0.019-35.614
Partner/spouse controlling behaviour as perceived by the participant					
No (Reference)				1	
Yes	1.646	0.601	0.006	5.186	1.597-16.841

CI, Confidence interval; OR, Odds ratio; SE, Standard error; p, test of significance

documented in high-income European countries (5.1%).¹¹ The lower rates of IPV in these high-income countries have been associated with higher gender equality, education and women's empowerment when compared to those in low- and middle-income countries. In a recent meta-analysis of IPV in pregnant women aged between 15-49 years in Sub-Saharan countries, which includes Nigeria, the prevalence of intimate partner violence was 41.9% (95% CI 40.82 and 43.56%).¹² This was much higher than was observed in this study and may reflect cultural beliefs, level of education, socio-economic and policy variations in different countries. In

In similar studies in Nigeria, the prevalence rates of IPV in Enugu, Kwara, Sokoto, Abuja, and Osun States were 43.3%, 34.5%, 33%, 56.3%, and 46.86%, respectively.¹³⁻¹⁷ However, lower rates were documented in Kano (7.4%) and Ekiti (15.4%).^{18,19} The findings from these studies show that the problem of IPV is still rampant in this part of the world and calls for more proactive steps to curb the menace. The differences may also reflect the level of education, cultural practices, the patriarchal nature of our society and unwillingness to report this menace due to fear. In a previous study in Lagos State, Okenwa et al. found the IPV rate to be 29% among women of

reproductive age and psychological abuse (23%, compared to sexual abuse, 8% and physical abuse, 8%) was still the most common form.²⁰

The decrease in the IPV rate in the State may be due to the increased awareness and enforcement of sanctions on perpetrators through the activity of the DSVA, and possibly explains why emotional rather than physical or sexual abuse is the most common abuse. Psychological abuse was the most common IPV observed in Enugu (85.5%) and Kwara (74.8%).^{13,14} In the meta-analysis by Melkan and colleagues, psychological abuse (35.85%) was the most common form of IPV in Sub-Saharan Africa, followed by physical (15.76%) and sexual (14.7%) violence.¹² In the systematic review conducted by Román-Gálvez et al., psychological abuse was the most common, 18.7% (95% CI 15.1-22.9%), followed by physical abuse, 9.2% (95% CI 7.7-11.1%) and sexual abuse, 5.5% (95% CI 4.0-7.5%).¹¹ These were different from findings in other studies in Nigeria, where physical abuse, sexual abuse and controlling behaviour were documented as the most common IPV. (Kano, Jigawa, Osun and Sokoto States).^{15,17, 18, 21}

This study found that unplanned pregnancy, history of exposure to violence among parents during childhood and a previous experience of violence within the past 12 months before the index pregnancy were significant predictors for IPV in Lagos (with $p=0.039$, $p=0.025$ and $p<0.001$, respectively). The spouse's level of education ($p=0.035$), use of alcohol ($p<0.001$), involvement in frequent fights with other people or aggression ($p=0.024$) and having a controlling behaviour were associated with a higher risk of intimate partner violence. Education is known to be an important determinant of the risk of violence, as it brings better enlightenment and empowerment to both partners and will most likely improve the socioeconomic status, factors known to improve IPV in high-income countries.

We observed in this study that the level of education of our participants and their spouses was high, with the majority having tertiary education, and that most partners were gainfully employed. This may account for the lower prevalence rate of IPV in this study compared with that documented by other researchers in other States of Nigeria. This study showed that women who had experienced IPV within a year before were 96 times more likely to experience IPV in the index pregnancy ($p<0.01$, $OR=96.144$, $CI=30.071, 307.701$) than those who did not. Also, women who reported having experienced at least one form of controlling behaviour by their spouses were 5 times more likely to suffer IPV ($p=0.006$; $OR=5.186$, $CI=1.597-16.841$) than pregnant women who had not experienced any form of spousal controlling behaviour.

Melkan et al. identified key factors associated with intimate partner violence (IPV) during pregnancy. They observed that women in the poorest wealth category

were 2.01 times more likely to experience IPV than those in the richest category (95% CI: 1.02, 3.92). Additionally, women with partners who consumed alcohol had 3.37 times the odds of IPV ($AOR=3.37$; 95% CI: 2.21, 5.14), and those married to uneducated husbands had a 2.01 times higher risk ($AOR=2.01$; 95% CI: 1.12, 3.63). These findings are similar to ours and consistent with those of other authors.^{22, 23}

In this study, 106 (25.4%) pregnant women had a previous history of miscarriages or stillbirths preceding the index pregnancy. Of these, 15 (14.1%) had experienced at least one form of IPV abuse before the incident. There was, however, no statistically significant association between miscarriage/stillbirth and IPV ($p=0.119$).

The limitations of the study include the fact that social desirability bias has a significant impact on participants' reluctance to openly discuss their experiences with domestic and sexual violence due to the sensitive nature of the topic. As a result, this can lead to an underestimation of the occurrence, frequency and effects of these forms of violence. Additionally, study participants were drawn only from pregnant women accessing antenatal care at the selected public hospitals in Lagos, and the study may not capture those who do not access any form of supervised antenatal care. The findings from this study may thus not be the full reflection of the true burden of intimate partner violence among these cohorts in the population. The study did not include the outcomes of pregnancy and the impact on the mental health of women who suffered IPV in their index pregnancy. There is a need for further studies to determine the impact of IPV on pregnancy outcomes and the mental health of these women. However, the strength is that it was a multi-centred study involving pregnant women accessing care across the 3 levels of healthcare delivery, and it provides representative data on IPV in this cohort in Lagos State.

CONCLUSION

The prevalence of intimate partner violence among pregnant women, though seen to have slightly declined from previous studies, is still high in our environment. Although psychological abuse is still the most common, sexual and physical abuse are still perpetrated. Unplanned pregnancy was identified as a modifiable risk factor and calls for advocacy and actions that may improve family planning uptake among our women. The findings of this study underscore the need for increased awareness, advocacy and legislation against intimate partner violence. There is a need to integrate surveillance programs that can both detect and intervene in cases of IPV into the antenatal care package nationwide to reduce harm to pregnant women.

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