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■ Original Article

Intimate partner violence during pregnancy among women attending antenatal clinic in Southern Nigeria

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ABSTRACT

Context: IPV against women is associated with immediate and long-term adverse health outcomes for women and children, both directly and indirectly. This is particularly worse in the pregnancy where the condition of the woman makes her vulnerable to adverse outcomes. **Aims:** To assess the prevalence of IPV among pregnant women and determine the factors associated with it. **Settings and design:** A cross-sectional study carried out between November 2017 and March 2018 among pregnant women attending antenatal clinics in the Southern part of Nigeria. **Subjects and Methods:** A pre-tested structured questionnaire adapted from the WHO multi-country study on domestic violence was used for interview among the 529 participants. **Statistical analysis used:** The data were cleaned, coded and analyzed using statistical IBM SPSS Statistics version 21.0. **Results:** The overall prevalence of IPV during pregnancy was 15.5% with that of physical, sexual, controlling and emotional IPV during pregnancy in this study were 2.1%, 3.6%, 5.1% and 11.9%, respectively. Respondents who had higher education (AOR: 4.428, 95% CI: 1.729-11.342), made less than 4 ANC clinic visits (AOR: 5.543, 95% CI: 2.706-11.352) and those with partners in unskilled occupation (AOR: 3.065, 95% CI: 1.115-8.426) were more likely to experience IPV during pregnancy. In addition, respondents with professional or skilled occupation and those of high social class were less likely to experience IPV during pregnancy, (AOR: 0.476, 95% CI: 0.272-0.833) and (AOR: 0.157, 95% CI: 0.053-0.467), respectively. **Conclusions:** Our findings underscore the importance of empowering the woman and indeed, the home and improving her social status.

Keywords: intimate partner violence, domestic violence, abuse, pregnancy, maternal morbidity and mortality

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The sustainable development goals (SDGs), which are international agreements made by various governments, proposed measures towards the prevention of violence against women. The goal 5 which addresses gender equality and empowerment of women and girls, has as one of its targets (Target 5.2) to “eliminate all forms of violence against all women and girls in public and private spheres, including trafficking and sexual and other types of exploitation.”¹ This stresses the need to address all forms of violence against women, including intimate partner violence (IPV), as a key tool to achieving gender equality. Also, the target 16.1 of the SDGs is to significantly reduce all forms of violence and related rates everywhere.¹ Therefore, addressing the issues of IPV is a necessity in attaining the SDGs.

The World Health Organization (WHO) defined IPV as the most common form of violence against women. It includes physical, sexual, and emotional abuse, and controlling behaviors by an intimate partner.² Violence against women is a violation of human right that cuts across the world, regardless of social status, culture or ethnicity. It is increasingly gaining public health attention because of the attendant consequences to the health of the woman. The WHO estimates show that violence against women increases the risk of adverse physical health outcomes including those related to sexual and reproductive health as well as mental health outcomes.³

Worldwide, one in three (35%) women and girls aged 15-49 years report physical or sexual IPV or non-partner sexual violence in their lifetime. Most of this is IPV, which affects 30% of women (aged 15-49 years) and 30% of adolescent girls (aged 15-19 years). Estimates of the proportion of women who have experienced intimate partner violence range from 23.2% in high-income countries and 24.6% in the WHO Western Pacific Region low-medium income countries (LMIC), to 37% in the Eastern Mediterranean Region LMIC and 37.7% in the South-East Asia Region LMIC.^[3] In 2013, an estimated 38% of homicides among women were committed by their intimate partners as compared to 6% of homicides among men.³ The

United Nation (UN) reported that of the about 87,000 women killed in 2017, 58% were committed by an intimate partner or family member.⁴ Africa is the region most affected by homicides among women by intimate partners. A rate of 3.1 victims per 100,000 female population were reported in Africa.⁴ Nigeria, in 2015, passed the comprehensive Violence Against Persons Prohibition Act which aims to eliminate all forms of violence. In addition, Nigeria is a signatory to the Convention on the Elimination of All Forms of Discrimination against Women (CEDAW). Despite these efforts, IPV has continued to be of concern. The Nigeria demographic and health survey in 2019, reported a rate of IPV against women of 19.9%, 7.7% and 32.3% for physical, sexual and emotional IPV, respectively. The overall prevalence of IPV was quoted as 36.9%.⁵

Violence during pregnancy by an intimate partner manifests by physical, sexual, emotional as well as controlling behaviors. The focus of the majority of studies on IPV during pregnancy has often been on physical violence. This negates the other areas of IPV during pregnancy which are also detrimental for women's and their children's well-being. The WHO in the multi-country study reported a prevalence of physical violence in pregnancy to range between 1-28%.⁶ IPV during pregnancy in Africa is among the highest globally with an overall prevalence of 15.23% quoted.⁷ A prevalence of 5.5% was reported of physical IPV during pregnancy in Nigeria⁵ and an overall prevalence of 28.3% reported of IPV during pregnancy in Southern part of the country.⁸

Risk factors for IPV during pregnancy are said to be similar to that outside pregnancy. However, the prevalence may be higher because of the increased demand for partner commitment that comes with pregnancy. Several factors have been reported to be associated with IPV during pregnancy. These include factors such as unplanned pregnancy, education, occupation, social class, family size, and partner use of alcohol and smoking.⁹⁻¹¹ It is important to identify these factors as this may help to address this problem which is on the increase especially in our environment.

IPV against women is associated with immediate and long-term adverse health outcomes for women and children, both directly and indirectly.¹² This is particularly worse in the pregnancy where the condition of the woman makes her vulnerable to adverse outcomes. Violence during pregnancy can result in physical injuries, sexually transmitted infections, hemorrhage, mental health disorders and poor attendance to antenatal and postnatal care.¹³⁻¹⁵ Pregnant women exposed to IPV are said to be at high risk of mental health problems such as depression, posttraumatic stress disorders, suicidal ideation and psychosis.¹³⁻¹⁷ Fetal and neonatal complications associated with IPV include miscarriage, prematurity and its consequences, low birth weight, premature separation of the placenta, stillbirth, preterm delivery and neonatal intensive care admission.^{9,16,18,19} In Nigeria, study results from a nationally representative sample of mothers aged 15 to 49 years showed that women who are exposed to IPV were 1.5 times more likely to lose a child under 5 years old compared to those not exposed women.²⁰ This study, therefore, sets out to assess the prevalence of IPV among pregnant women and determine the factors associated with it. It is our belief that knowing these factors will help to formulate plans and strategies to combat IPV during pregnancy and consequently, prevent the adverse outcomes associated with it. Also, the prevalence of different forms of IPV can help monitor progress towards the elimination of violence against persons, particularly during pregnancy, in Nigeria.

Materials and Methods

This cross-sectional study was carried out between November 2017 and March 2018 among pregnant women attending antenatal clinics in the Southern part of Nigeria. The hospital serves as a referral center for other hospitals within and from neighboring states. It holds four antenatal clinics every week and has an average of 80 attendance per clinic day.

The participants for this study were ever-partnered pregnant women in their second or third

trimester. This was to minimize the bias that may occur if the women were too early in pregnancy. Those who were ill and unable to give consent were excluded from the study.

A pre-tested structured interviewer-administered questionnaire adapted from the WHO multi-country study on domestic violence was used.⁶ Data were collected on the demographic and obstetric characteristics of the pregnant women, the demographic characteristics of interest of their partners, spouse/partner's smoking and alcohol use status, and information to determine if the women have experienced physical, emotional, sexual and controlling behavior IPV during the index pregnancy.

A woman was considered to have experienced IPV if she experiences any one of the different categories of IPV during the pregnancy.

The social status of pregnant women studied was assessed using the classification system that combines the educational status of the woman and the occupation of the spouse. It classified education as 0, 1 and 2 for tertiary, secondary, and primary education, respectively, and the occupation of the spouse as 1,2, and 3 for professional, skilled, and unskilled occupation, respectively. The combination of these put the woman in a social class that ranges from 1 (highest social class) to 5 (lowest social class). The appropriateness of the classification and its application in Nigeria have been assessed and presented elsewhere.²¹⁻²³

The sample size determination was with the Cochran sample size formula calculation using a prevalence of IPV during pregnancy of 44.6%.²⁴ This gave a minimum sample size of 380. Considering a non-response rate of 10%, a sample size of 418 was derived. However, a total of 529 pregnant women participated in this study.

The study objectives and procedures were explicitly explained to participants and informed consent obtained. The participants were assured of their confidentiality and privacy during the interview and data management. They were also informed that they had the right to decline participation or withdraw from the study anytime and that there will be no penalties or loss of benefits for

refusal or withdrawal from the study.

The data were checked for completeness and consistencies at the end of each day. They were then cleaned, coded and analyzed using statistical IBM SPSS Statistics version 21.0.

Descriptive statistics were computed to determine the prevalence of overall IPV and subtypes of IPV during pregnancy, including physical, emotional, sexual and controlling behavior. Chi-square tests were used for bivariate analyses to identify factors associated with IPV. A multivariate logistic regression model was done to identify the different factors that independently determine IPV during pregnancy and OR calculated at 95% Confidence interval. In all statistical tests, a value of $p < 0.05$ was considered statistically significant.

Results

Five hundred and twenty-nine pregnant women participated in the study with their ages ranging between 30-34 years and a mean age of 31.28 ± 4.38 years. A hundred and ninety-two (36.3%) of them had no previous delivery and 351 (66.4%) were in their 3rd trimester of pregnancy. The majority of them were skilled 247 (46.7%) with tertiary level of education 351 (66.4%). Three hundred and eight (58.2%) respondents had attended at least four antenatal visits. The majority of their partners were in skilled occupation 243 (45.9%) and had tertiary education 416 (78.6%).

The prevalence of physical, sexual, controlling and emotional IPV during pregnancy in this study were 2.1%, 3.6%, 5.1% and 11.9%, respectively. The overall IPV during pregnancy was 15.5% (see Fig 1).

Significant associations were found between physical IPV and age, parity, gestational age, level of education, occupation, and partner's occupation. Women who reported physical IPV were more likely to be of age category 25-29 years ($p < 0.001$), nulliparous ($p < 0.001$), in their third trimester ($p = 0.019$), with tertiary level of education ($p = 0.038$), in skilled occupation ($p = 0.001$), and with a partner in skilled occupation ($p = 0.001$). Women with unplanned pregnancy were more

likely to be involve in IPV during pregnancy ($p = 0.001$) (see Table 1).

Sexual IPV was relatively more among women of age category 20-24 3 (10.0%, $p < 0.001$), nulliparous 12 (6.3%, $p = 0.046$), those that had < 4 antenatal clinic visits 13 (5.9%, $p = 0.031$), those with unplanned pregnancy 6 (8.5%, $p = 0.031$) and those with partners in skilled occupation 13 (5.3%, $p = 0.023$) (see Table 2).

Statistically significant differences were found among the age categories ($p = 0.001$), occupation ($p = 0.022$), status of pregnancy ($p = 0.005$) and partner level of education ($p = 0.007$) and controlling behavior. Women who reported IPV during pregnancy were more likely to be of age category 25-29, skilled, have unplanned pregnancy and have partners with tertiary level of education (see Table 3).

Thirty-three (20.2%) and 9 (4.3%) of age categories 25-29 and 30-34 years, respectively reported emotional IPV ($p < 0.001$). Respondents less than 28 weeks pregnant were more likely to experience emotional IPV 34 (19.1%, $p < 0.001$). Respondents in skilled occupation 36 (14.6%) and those who had < 4 antenatal visits 49 (22.2%) were significantly more likely to experience emotional IPV ($p = 0.009$ and $p < 0.001$ respectively). There were also significant differences in the status of the pregnancy ($p = 0.017$) and partner's occupation ($p = 0.004$) and emotional IPV. Respondents with unplanned pregnancy 15 (21.1%) and those with partners in skilled occupation 37 (15.2%) were more likely to experience emotional IPV (see Table 4). After correcting for confounders in the multivariate regression model, respondents who had higher education (AOR-4.428, 95% CI - 1.729-11.342), made less than 4 ANC clinic visits (AOR-5.543, 95% CI-2.706-11.352) and those with partners in unskilled occupation (AOR-3.065, 95% CI-1.115-8.426) were more likely to experience IPV during pregnancy. In addition, respondents with professional or skilled occupation and those of high social class were less likely to experience IPV during pregnancy, (AOR - 0.476, 95% CI - 0.272-0.833) and (AOR-0.157, 95% CI -0.053-0.467), respectively (see Table 5).

Table 1: Association between the respondents' characteristics and physical IPV

Variables	Physical IPV		P-Value
	Yes n (%)	No n (%)	
Age (years) (mean age 31.28+4.38)			
20-24	0	30 (100)	<0.001
25-29	11 (6.7)	152 (93.3)	
30-34	0	211 (100)	
>35	0	125 (100)	
Parity			
2-4	0	179 (100)	<0.001
1	0	158 (100)	
0	11 (5.7)	181 (94.3)	
Gestational age (weeks) (mean 31.28+4.38)			
<28	0	178 (100)	0.019
>28	11 (3.1)	340 (96.9)	
Level of education			
Tertiary	11 (3.1)	340 (96.9)	0.038
Secondary	0	175 (100)	
Primary	0	3 (100)	
Occupation			
Professional	0	58 (100)	0.001
Skilled	11 (4.5)	236 (95.5)	
Unskilled	0	224 (100)	
Marital status			
Married	11 (2.1)	510 (97.9)	1.000
Not married	0	8 (100)	
Antenatal clinic visits			
<4	5 (2.3)	216 (97.7)	1.000
>4	6 (1.9)	302 (98.1)	
Status of index pregnancy			
Planned	5 (1.1)	453 (98.9)	0.001
Unplanned	6 (8.5)	65 (91.5)	
Partner level of education			
Tertiary	11 (2.6)	405 (97.4)	0.185
Secondary	0	110 (100)	
Primary	0	3 (100)	

Variables	Physical IPV		P-Value
	Yes n (%)	No n (%)	
Partner Occupation			
Professional	0	141 (100)	0.001
Skilled	11 (4.5)	232 (95.5)	
Unskilled	0	145 (100)	
Partner alcohol			
Yes	6 (3.7)	158 (96.3)	0.104
No	5 (1.4)	360 (98.6)	
Partner smoking			
Yes	0	11 (100)	1.000
No	11 (2.1)	507 (97.9)	
Social class			
1	0	112 (100)	<0.001
2	11 (6.0)	171 (94.0)	
3	0	173 (100)	
4	0	62 (100)	

Table 2: Association between the respondents' characteristics and sexual IPV

Variables	Sexual IPV		P-Value
	Yes n (%)	No n (%)	
Age (years) (mean age 31.28+4.38)			
20-24	3 (10.0)	27 (90)	<0.001
25-29	12 (7.4)	151 (92.6)	
30-34	4 (1.9)	207 (98.1)	
>35	0	125 (100)	
Parity			
2-4	4 (2.2)	175 (97.8)	0.046
1	3 (1.9)	155 (98.1)	
0	12 (6.3)	180 (93.8)	
Gestational age (weeks) (mean 31.28+4.38)			
<28	10 (5.6)	168 (94.4)	0.124
>28	9 (2.6)	342 (97.4)	
Level of education			
Tertiary	16 (4.6)	335 (95.4)	0.226
Secondary	3 (1.7)	172 (98.3)	
Primary	0	3 (100)	

Variables	Sexual IPV		P-Value
	Yes n (%)	No n (%)	
Occupation			
Professional	0	58 (100)	0.179
Skilled	12 (4.9)	235 (95.1)	
Unskilled	7 (3.1)	217 (6.9)	
Marital status			
Married	19 (3.6)	502 (96.4)	1.000
Not married	0	8 (100)	
Antenatal clinic visits			
<4	13 (5.9)	208 (94.1)	0.031
>4	6 (1.9)	302 (98.1)	
Status of index pregnancy			
Planned	13 (2.8)	445 (97.2)	0.031
Unplanned	6 (8.5)	65 (91.5)	
Partner level of education			
Tertiary	16 (3.8)	400 (96.2)	0.800
Secondary	3 (2.7)	107 (97.3)	
Primary	0	3 (100)	
Partner Occupation			
Professional	0	141 (100)	0.023
Skilled	13 (5.3)	230 (94.7)	
Unskilled	6 (4.1)	139 (95.9)	
Partner alcohol			
Yes	6 (3.7)	158 (96.3)	1.000
No	13 (3.6)	352 (96.4)	
Partner smoking			
Yes	0	11 (100)	1.000
No	19 (3.7)	499 (96.3)	
Social class			
1	0	112 (100)	0.009
2	10 (5.5)	172 (94.5)	
3	9 (5.2)	164 (94.8)	
4	0	62 (100)	

Table 4: Association between the respondents' characteristics and emotional IPV

Variables	Emotional IPV		P-Value
	Yes n (%)	No n (%)	
Age (years) (mean age 31.28+4.38)			
20-24	0	30 (100)	<0.001
25-29	33 (20.2)	130 (79.8)	
30-34	9 (4.3)	202 (95.7)	
>35	21 (16.8)	104 (83.2)	
Parity			
2-4	24 (13.4)	155 (86.6)	0.742
1	18 (11.4)	140 (88.6)	
0	21 (5.7)	171 (89.1)	
Gestational age (weeks) (mean 31.28+4.38)			
<28	34 (19.1)	144 (80.9)	<0.001
>28	29 (8.3)	322 (91.7)	
Level of education			
Tertiary	45 (12.8)	306 (87.2)	0.642
Secondary	18 (10.3)	157 (89.7)	
Primary	0	3 (100)	
Occupation			
Professional	0	58 (100)	0.009
Skilled	36 (14.6)	211 (85.4)	
Unskilled	27 (12.1)	197 (87.9)	
Marital status			
Married	63 (12.1)	458 (87.9)	0.605
Not married	0	8 (100)	
Antenatal clinic visits			
<4	49 (22.2)	172 (77.8)	<0.001
>4	14 (4.5)	294 (95.5)	
Status of index pregnancy			
Planned	48 (10.5)	410 (89.5)	0.017
Unplanned	15 (21.1)	56 (78.9)	
Partner level of education			
Tertiary	47 (11.3)	369 (88.7)	0.596
Secondary	16 (14.5)	94 (85.5)	
Primary	0	3 (100)	

Variables	Emotional IPV		P-Value
	Yes n (%)	No n (%)	
Partner Occupation			
Professional	6 (4.3)	135 (95.7)	0.004
Skilled	37 (15.2)	206 (84.8)	
Unskilled	20 (13.8)	125 (86.2)	
Partner alcohol			
Yes	19 (11.6)	145 (88.4)	0.993
No	44 (12.10)	321 (87.9)	
Partner smoking			
Yes	0	11 (100)	0.377
No	63 (12.3)	455 (87.8)	
Social class			
1	2 (1.8)	110 (98.2)	<0.001
2	30 (16.5)	152 (83.5)	
3	28 (16.2)	145 (83.8)	
4	3 (4.8)	59 (95.2)	

Table 5: Determinants of IPV during pregnancy

Variables	Crude OR (95% C. I.)	P-Value	Adjusted OR (95% C. I.)	P-Value
Age (years)				
<35	0.657 (0.391-1.105)	0.114	0.645 (0.360-1.153)	0.139
>35	1		1	
Parity				
0	0.687 (0.412-1.148)	0.152	0.935 (0.530-1.651)	0.817
>1	1		1	
Gestational age (weeks)				
<28	1.894 (1.174-3.054)	0.009	0.676 (0.345-1.326)	0.255
>28	1		1	
Level of education				
With tertiary education	1.110 (0.670-1.838)	0.686	4.428 (1.729-11.342)	0.002
Without tertiary education	1		1	
Occupation				
Professional/Skilled	0.654 (0.408-1.049)	0.078	0.476 (0.272-0.833)	0.009
Unskilled	1		1	

Variables	Crude OR (95% C. I.)	P-Value	Adjusted OR (95% C. I.)	P-Value
Antenatal visits				
<4	3.681 (2.225-6.089)	<0.00	5.543 (2.706-11.352)	<0.001
>4	1		1	
Status of index pregnancy				
Planned	0.640 (0.340-1.196)	0.162	0.910 (0.410-2.018)	0.816
Unplanned	1		1	
Partner level of education				
With tertiary education	0.883 (0.504-1.548)	0.664	1.513 (0.707-3.236)	0.286
Without tertiary education	1		1	
Partner occupation				
Unskilled	0.897 (0.534-1.508)	0.682	3.065 (1.115-8.426)	0.030
Professional/Skilled	1		1	
Use of alcohol				
Yes	0.907 (0.542-1.520)	0.712	0.790 (0.438-1.426)	0.434
No	1		1	
Social class				
1-2	0.683 (0.426-1.095)	0.113	0.157 (0.053-0.467)	0.001
3-4	1		1	

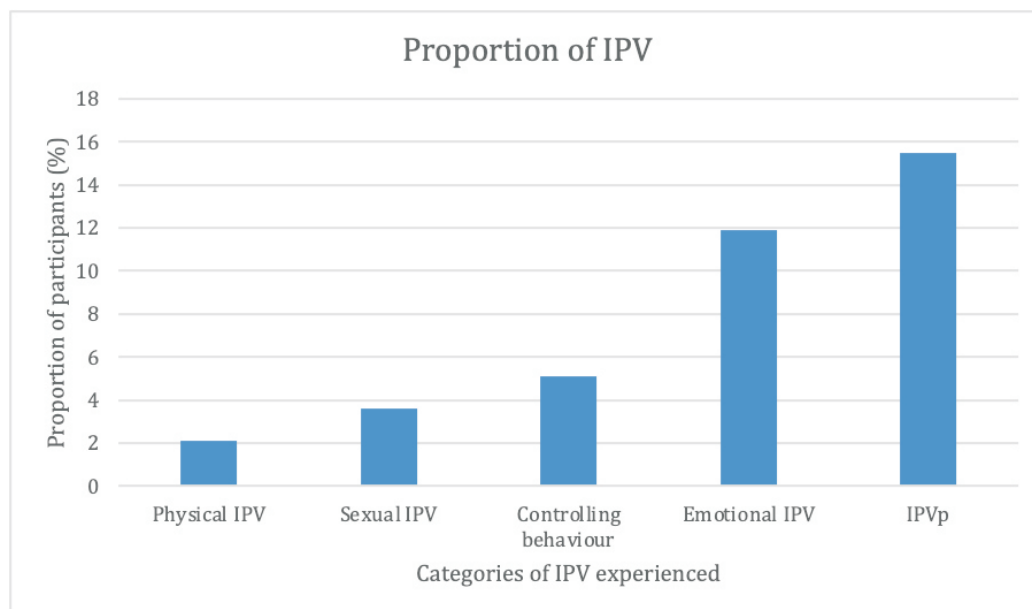


Figure 1: Prevalence of the various categories of IPV experienced

Discussion

IPV is a violation of human rights and results in adverse health consequences both physical and psychological. These consequences are particularly worse in the pregnant woman due to the various changes of pregnancy which predisposes a woman to a more severe presentation. In this study, the authors assessed the burden of IPV during pregnancy and determined the factors associated with it. This is a necessary step in achieving the goals 3, 5 and 15 of the sustainable development goals as the world makes efforts to reduce global maternal mortality and ensure gender equality by year 2010.

In our study, 15.5% of the respondents have been exposed to IPV during the index pregnancy with 2.1%, 3.6%, 5.1% and 11.9% reporting exposure to physical, sexual, controlling and emotional IPV, respectively. The overall IPV during pregnancy in this study is similar to 13.6% reported from the South-eastern part of the country among women attending antenatal clinics²⁵ but differs from that reported from some other parts such as Abuja (5.2%), Jos (31.8%) and the Southern part of the country (28.3%).⁸⁻¹⁰ The findings on the various forms of IPV differ from that reported by previous work that reported the prevalence of emotional, physical and sexual violence as 28.4%, 13.8%, and 8.0%, respectively.²⁶ The physical and sexual violence rates also differed from those reported from some other countries such as China (11.9% and 9.1%, respectively).²⁷ While the physical violence rate was similar to that in Japan, the sexual violence rate was higher (2.3% and 1%, respectively)¹²⁸ and much lower compared to Thailand, where 54% of pregnant women were exposed to emotional violence, 27% to physical violence and 19% to sexual violence²⁹ and Jos where 60.9% and 18.7% were reported to experience sexual violence and physical violence respectively.¹⁰

These dissimilarities might be explained by the use of different measures and definitions of violence. In this study, we used the WHO questionnaire for measuring IPV among women, while the Abuja study used the abuse assessment

score, the Chinese study used the revised conflict tactics scale and the Japanese study used the violence against women screening (VAWS) tool.^{9,27,28} In addition, the disparity may be due to the willingness of women to disclose the IPV exposure, which relies on the culture, the fear of retaliation and the availability of support.³⁰ In Vietnam, particularly in rural areas, the perceived social norm is that women were responsible for the marital harmony while men had a role as primary income earners (i.e. 'pillars' in the family).³¹ Therefore, domestic violence might be treated as private issues and could not be disclosed for a 'Happy' family.³² Akaba and Abdullahi⁹ reported in their work that women who were more educated had less willingness to disclose IPV, this may also play a role in the small number in this study as 66% of the respondents possessed tertiary level of education. In addition, the lower prevalence in this study could probably be due to the fact that this study looked at IPV during index pregnancy as against some of the other studies that looked at lifetime prevalence both in and outside pregnancy, IPV in the last one year and violence by any perpetrator during pregnancy. Despite the fact that the prevalence of IPV observed in this study is lower than the lifetime prevalence observed in other studies, it still carries huge public health implications because IPV during pregnancy has been shown to be associated with a higher rate of adverse maternal and fetal outcomes.^{9,15,16,18,19}

Our study showed in the multivariate regression model that possessing tertiary education by the woman and the partner being in unskilled occupation were risk factors for IPV during pregnancy. The possible reason for this may be that the more educated a woman is, the more likely she will be aware of her rights and demand it. This may result in marital conflict in a patriarchal society like Nigeria. Our finding differs from that from a study in Michigan which reported reduction in both recent and longer-term probabilities of IPV when women's schooling is increased.³³ Despite this finding, women should be encouraged to attain high level of education as lack of it may foster higher levels of gender inequality and greater

acceptance of norms that support violence against women.^{7,26} The finding of this study is in concordance with previous studies that reported increased IPV with unskilled occupation.¹⁰ This likely arises from the financial strain that may exist in such settings. Women who have made less than 4 ANC clinic visits were more likely to experience IPV during pregnancy. This may be as a result of the role of ANC in providing counselling to the women and building trusting relationships with health-care providers or other social workers. These have been reported to result in decline in the occurrence of IPV during pregnancy and improve knowledge and capacities to cope with IPV among pregnant women.^{34,35} The period of pregnancy, when the woman has more frequent contact with the healthcare facility, has been proposed as a favorable time to screen for women experiencing IPV in order to improve clinical diagnosis and subsequent care.^{36,37} This recommendation by the WHO³⁹ and other relevant stakeholders like the American College of Obstetricians and Gynecologists (ACOG)³⁸ are yet to be operational in Nigeria and other low-to middle-income countries. The period of pregnancy may be the only point of contact with health care providers for many women in low resource settings. Helping on a repeated basis has the ability to aid women in reducing their risk of IPV and its sequelae, as has been reported from intervention studies in the USA³⁹ and Hong Kong.¹⁷

Higher women's social status as well as women in professional and skilled occupations were protective against IPV during pregnancy. Similarly, previous studies have found reduced risk of IPV in relation to higher women's status.^{40,41} Women with higher social status may be able to make decisions on when and whom to marry, and thus they will be less likely to enter an abusive relationship in the first place. It is also likely that they would not justify wife-beating, and thus they are more likely to enter a relationship with a partner who holds similar views and not experience IPV. Another possible reason for this may be because pregnant women of higher social class and in skilled or

professional occupation are more independent financially and so able to make certain decisions and are more likely to be less dependent on their partners.

Findings from this study buttress the fact that the occurrence of IPV is an interplay of different factors which may solely be due to differences in individuals, culture, and the society, as what is obtained in one setting, even though it may be similar, may not apply in another.

Limitation of the study

This study had some limitations that need to be considered when interpreting the results. The cross-sectional design of this study precludes us from drawing causal inference from the results obtained. However, our aim was not to study the causality. Second, selection bias may occur since the study only included women attending antenatal care. Third, because violence is a sensitive topic, it may be difficult to obtain valid information about IPV exposure. However, to encourage the women to volunteer information, the research assistants created an atmosphere of confidentiality and empathy.

Conclusion

This study assessed the burden of IPV during pregnancy among pregnant women and explored the factors that are associated with it. Our findings underscore the importance of empowering the woman and indeed, the home and improving her social status. In designing prevention strategies, it is important to keep in mind the complex dynamics between socio-cultural norms and individual factors. However, it is important to monitor and evaluate such prevention strategies adequately to provide evidence of their efficiency and effectiveness. To stop the occurrence of IPV during pregnancy and prevent its negative impact on the woman, it is of major importance to start implementing IPV screening programs in relation to antenatal care. Globally, this has been found to reduce its occurrence through counselling on relationship/family coping mechanisms.

References

1. United Nations. Transforming our world: the 2030 Agenda for Sustainable Development. New York: United Nations; 2015.
2. World Health Organization. Understanding and addressing violence against women: intimate partner violence. Geneva: World Health Organization; 2012.
3. World Health Organization. Global and regional estimates of violence against women: prevalence and health effects of intimate partner violence and non-partner sexual violence. Geneva: World Health Organization; 2013.
4. United Nations. Global study on homicide: gender-related killing of women and girls. Vienna, Austria: United Nations Office on Drugs and Crime; 2018.
5. National Population Commission (NPC) [Nigeria] & ICF. Nigeria Demographic and Health Survey 2018. Abuja, Nigeria, and Rockville, MD: NPC and ICF; 2019.
6. World Health Organization. WHO Multi-country study on Women's Health and Domestic Violence against Women: Initial results on prevalence, health outcomes and women's responses. Geneva: World Health Organization; 2005.
7. Shamu S, Abrahams N, Temmerman M, Musekiwa A, Zarowsky C. A systematic review of African studies on intimate partner violence against pregnant women: prevalence and risk factors. *PLoS One*. 2011; 6(3): e17591.
8. Olagbuji B, Ezeanochie M, Ande A, Ekaete E. Trends and determinants of pregnancy-related domestic violence in a referral center in southern Nigeria. *Int. J. Gynaecol. Obstet.* 2010; 108(2): 101-103.
9. Akaba GO, Abdullahi HI. Intimate partner violence among postpartum women at a teaching hospital in Nigeria's Federal Capital City: pattern and maternal-fetal outcomes. *Ther. Adv. Reprod. Health.* 2020; 14: 18.
10. Envuladu EA, Chia L, Banwat ME, Lar LA, Agbo HA, Zoakah AI. Domestic violence among pregnant women attending antenatal clinic in a PHC in Jos North LGA Plateau State Nigeria. *J. Med. Res.* 2012; 1(5): 6368.
11. Owaka IO, Nyanchoka MK, Atieli HE. Intimate partner violence in pregnancy among antenatal attendees at health facilities in West Pokot county, Kenya. *Pan Afr Med J.* 2017; 28: 229.
12. World Health Organization. Global and regional estimates of violence against women: prevalence and health effects of intimate partner violence and non-partner sexual violence. Italy: World Health Organization; 2013.
13. Chisholm CA, Bullock L, Ferguson JEJ 2nd. Intimate partner violence and pregnancy: epidemiology and impact. *Am. J. Obstet. Gynecol.* 2017; 217(2): 141-144.
14. Martin SL, Li Y, Casanueva C, Harris-Britt A. Intimate partner violence and women's depression before and during pregnancy. *Violence against women.* 12(3): 2006; 221239.
15. Mahenge B, Likindikoki S, Stöckl H, Mbwambo J. Intimate partner violence during pregnancy and associated mental health symptoms among pregnant women in Tanzania: a cross-sectional study. *BJOG.* 2013; 120(8): 940947.
16. El Kady D, Gilbert WM, Xing G, Smith LH. Maternal and neonatal outcomes of assaults during pregnancy. *Obstet. Gynecol.* 2005; 105(2): 357-363.
17. Lau Y, Chan KS. Influence of intimate partner violence during pregnancy and early postpartum depressive symptoms on breastfeeding among Chinese women in Hong Kong. *Journal of Midwifery and Women's Health.* 2007; 52(2): 1520.
18. Fanslow J, Silva M, Whitehead A, Robinson E. Pregnancy outcomes and intimate partner violence in New Zealand. *Aust. N. Z. J. Obstet. Gynaecol.* 2008; 48(4): 391-397.
19. Blencowe H, Cousens S, Oestergaard MZ, Chou D, Moller A, Narwal R. et al., National, regional, and worldwide estimates of preterm birth rates in the year 2010 with time trends since 1990 for selected countries: a systematic analysis and implications. *The Lancet.* 2012; 379: 21622172.
20. Osuorah D, Antai D, Ezeudu C, Chukwujekwu E. Effect of maternal exposure to intimate partner violence on under-five mortality in Nigeria. *Niger. J. Paed.* 2012; 39(3): 97-104.
21. Olusanya O. An original system of social classification for use in Nigeria and other developing countries. Paper presented at the 24th Annual Conference of the West African College of Surgeons, Freetown, Sierra Leone; 1984.
22. Olusanya O, Okpere E, Ezimokhai M. The importance of social class in voluntary fertility control in developing countries. *West Afr. J. Med.* 1985; 4: 205212.
23. Roberts AO, Obajimi GO. An audit of interval female sterilisation by minilaparotomy at the University College Hospital, Ibadan, Nigeria. *J. Obstet. Gynaecol.* 2013; 33(4): 403-405.
24. Onoh R, Umeora O, Ezeonu P, Onyebuchi A, Lawani O, Agwu U. Prevalence, pattern and consequences of intimate partner violence during pregnancy at Abakaliki Southeast Nigeria. *Ann. Med. Health Sci.*

- Res. 2013; 3(4): 484491.
25. Umeora OIJ, Dimejesi BI, Ejikeme BN, Egwuatu VE. Pattern and determinants of domestic violence among prenatal clinic attendees in a referral center, Southeast Nigeria. *J. Obstet. Gynaecol.* 2008; 28(8): 769-774.
 26. James L, Brody D, Hamilton Z. Risk factors for domestic violence during pregnancy: a meta-analytic review. *Violence Vict.* 2013; 28: 359380.
 27. Chan KL, Brownridge DA, Tiwari A, Fong DY, Leung WC, Ho PC. Associating pregnancy with partner violence against Chinese women. *J. Interpers. Violence.* 2011; 26(7): 1478-1500.
 28. Kita S, Yaeko K, Porter SE. Prevalence and risk factors of intimate partner violence among pregnant women in Japan. *Health Care Women Int.* 2014; 35: 442457.
 29. Saito A, Creedy D, Cooke M, Chaboyer W. Effect of intimate partner violence on antenatal functional health status of childbearing women in Northeastern Thailand. *Health Care Women Int.* 2013; 34(9): 757-774.
 30. Capaldi DM, Knoble NB, Shortt JW, Kim HK. A Systematic Review of Risk Factors for Intimate Partner Violence. *Partner Abuse.* 2012; 3(2): 231-280.
 31. Nh? TT, H?nh NTT, Gammeltoft TM. Emotional violence and maternal mental health: a qualitative study among women in northern Vietnam. *BMC Women's Health.* 2018; 18: 58.
 32. Schuler SR, Lenzi R, Hoang T, Vu S, Yount KM, Trang QT. Recourse seeking and intervention in the context of intimate partner violence in Vietnam: a qualitative study. *J. Family Issues.* 2016; 37: 1151-1173.
 33. Weitzman A. Does increasing women's education reduce their risk of intimate partner violence? Evidence from an education policy reform. *Criminology.* 2018; 56: 574-607.
 34. Nelson HD, Bougatsos C, Blazina I. Screening women for intimate partner violence: a systematic review to update the U.S. preventive services task force recommendation. *Ann. Intern. Med.* 2012; 156: 796-808.
 35. Van Parys AS, Verhamme A, Temmerman M, Verstraelen H. Intimate partner violence and pregnancy: a systematic review of interventions. *PLoS One.* 2014; 9: e85084.
 36. Deshpande NA, O'Connor L. Screening for intimate partner violence during pregnancy. *Rev. Obstet. Gynecol.* 2013; 6: 141-148.
 37. World Health Organization. WHO recommendations on antenatal care for a positive pregnancy experience. Geneva, Switzerland: World Health Organization; 2016.
 38. Chisholm CA, Bullock L, Ferguson JEJ 2nd. Intimate partner violence and pregnancy: screening and intervention. *Am. J. Obstet. Gynecol.* 2017; 217(2): 145-149.
 39. Moraes CL, Amorim AR, Reichenheim ME. Gestational weight gain differentials in the presence of intimate partner violence. *Int. J. Gynecol. Obst.* 95(3): 2006; 254-260.
 40. Rahman M, Nakamura K, Seino K, Kizuki M. Does gender inequity increase the risk of intimate partner violence among women? Evidence from a national Bangladeshi sample. [Erratum appears in *PLoS One.* 2014; 9(2): e91448]. *PLoS One.* 2013; 8(12): e82423.
 41. Gyuse ANI, Ushie AP. Pattern of domestic violence among pregnant women in Jos, Nigeria. *South African Family Practice.* 2009; 51(4): 343-345.