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RESEARCH ARTICLE

INFLUENCE OF PRENATAL EXPOSURE TO INTIMATE PARTNER VIOLENCE ON NEONATAL BIRTH WEIGHT: EVIDENCE FROM AN UNMATCHED CASE-CONTROL STUDY AT BAFOUSSAM REGIONAL HOSPITAL

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Abstract

Background: Intimate partner violence (IPV) during pregnancy represents a significant public health concern with detrimental effects on both maternal and foetal health, including low birth weight. IPV takes many forms, including physical violence, sexual violence, stalking and psychological aggression.Despite global evidence, data on this association remain limited in Cameroon. This study examined the impact of IPV during pregnancy on neonatal birth weight at Bafoussam Regional Hospital.

Methodology: We conducted a hospital-based unmatched case-control study involving 272 pregnant women (68 cases of low-birth-weight infants and 204 controls). Participants were consecutively recruited from the hospital's maternity unit. Data were collected using a pretested questionnaire adapted from WHO instruments and analyzed using Epi-Info 7.2.5. Bivariate and multivariate logistic regression models assessed associations between IPV and birth outcomes.

Results: Out of 272 study participants, 50.37% were aged 20-29 years and 56.99% were married. 120(44.12%) had experienced IPV during their index pregnancy period, with psychological violence being most common (41.5%), followed by physical (11.0%) and sexual violence (10.3%). Mothers of low-birth-weight (LBW) infants reported significantly higher IPV exposure (63.2% vs 37.8%; OR=2.84, 95%CI:1.61-5.01) compared to mothers of infants with normal birth weight (NBW).Factors associated included parental history of IPV (OR=2.00), Not having a civil and religiousmarriage(OR=0.51), and partner controlling behaviour (OR=9.05). After adjustment, any IPV exposure tripled the likelihood of LBW (aOR=3.26, 95%CI:1.76-6.05).

Conclusion:IPV during pregnancy is prevalent in our setting and strongly associated with low birth weight. These findings highlight the urgent need for routine IPV screening during antenatal care (ANC) and implementation of support services for affected women to improve pregnancy outcomes.

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Introduction:-

Intimate Partner Violence (IPV) encompasses physical violence, sexual violence, stalking, and psychological abuse perpetrated by a current or former partner or spouse. In this study, our focus is specifically on violence directed toward women by male intimate partners—a form of domestic violence. Globally, approximately 30% of women have experienced physical and/or sexual violence by an intimate partner at some point in their lives [1]. Pregnancy is recognized as a particularly vulnerable period, as physiological and emotional changes may increase a woman's susceptibility to abuse [2].

IPV during pregnancy can compromise maternal and fetal health through direct physical trauma as well as the physiological consequences of chronic stress. These stressors have been linked to adverse reproductive outcomes such as preterm labor, low gestational weight gain, reduced breastfeeding rates, and low birth weight—all of which are known contributors to neonatal morbidity and mortality [3,4]. As such, IPV in pregnancy is both a critical health concern and a broader social issue with lasting repercussions for maternal and neonatal well-being.

In Cameroon, data from the 2004 Demographic and Health Survey (DHS) estimated that 39.8% of women had experienced some form of IPV [5]. Specifically, 38.7% reported physical violence, 30.7% emotional abuse, and 14.8% sexual violence from their intimate partners over their lifetime [6]. Estimates of IPV during pregnancy vary widely, with prevalence rates ranging from 1.6% to 78% globally [7]. In sub-Saharan Africa, the prevalence of IPV during pregnancy is estimated at 7–20% for physical violence [8], 9.7–18% for sexual violence [9], and 17–29% for psychological violence [10].

The Centers for Disease Control and Prevention (CDC) highlight pregnancy as a critical window of opportunity for identifying IPV, as it often brings vulnerable women into contact with healthcare services [11]. This increased access to care presents a unique chance to screen for and address abuse.Given the scope, severity, and potential outcomes associated with IPV during pregnancy, there is a pressing need for robust, context-specific data to inform healthcare responses. While numerous studies have explored the impact of IPV on maternal and child health globally and across Africa, there remains a gap in evidence from Cameroon, particularly regarding the influence of IPV on birth weight. To address this gap, we aimed to assess the relationship between intimate partner violence during pregnancy and neonatal birth weight at the Bafoussam Regional Hospital (BRH).

Methods:-

Study design and setting

We conducted a hospital-based unmatched case-control study at Bafoussam Regional Hospital (BRH), the main referral center for Cameroon's West Region. The study compared two groups: cases (mothers of term newborns weighing <2500g) and controls (mothers of term newborns ≥2500g), recruited during the same period. The hospital hosts an obstetrics and gynecology department, composed of several specialized units, as well as a neuropsychiatry department that provides care for victims of intimate partner violence (IPV).

Study period and population

Participants included all delivering mothers at BRH's maternity unit between February 1st to May 27th, 2022. Cases were defined as mothers who delivered term newborns with a birth weight below 2500 grams, while controls were mothers who delivered term newborns weighing 2500 grams or more, all within the same time frame and hospital setting.

Study sampling

Using consecutive sampling, we enrolled 272 women (68 cases, 204 controls) from 280 eligible participants (90% response rate), excluding 8 incomplete questionnaires. Sample size was calculated based on anticipated IPV prevalence differences between groups.

Data Collection Procedure:-

Trained interviewers administered a pretested questionnaire adapted from the WHO Multi-Country Study on Women's Health. The tool assessed: three IPV forms (psychological, physical, sexual), partner controlling behaviors and sociodemographic and obstetric characteristics. Interviewers received one-week training on ethical IPV research, including safety protocols and interview techniques.

Data management and analysis

Data were entered into Epi Info version 7.2.5 using a custom-designed data entry interface with built-in error detection, range checks, and consistency validations. Categorical variables were summarized using proportions with corresponding 95% confidence intervals. The strength of association between IPV during pregnancy and selected covariates was analyzed using odds ratios derived from logistic regression models and chi-square tests. Logistic and multivariate regression analyses were employed to examine the association between IPV (as the exposure) and birth weight (as the outcome). Variables with p-values ≤ 0.05 in univariate analyses were included in the multivariate model to control for potential confounders. Statistical significance was set at a p-value ≤ 0.05.

Ethical Considerations

The West Regional Ethics Committee approved the study. We obtained written informed consent, ensured confidentiality through anonymized data collection, and provided referral options for participants needing support. Interviews were conducted privately with safety protocols for violence disclosure.

Results:-

Among the 300 mothers contacted, 280 completed the interview (response rate of 90%) and 8 were excluded due to incomplete questionnaires (figure 01).

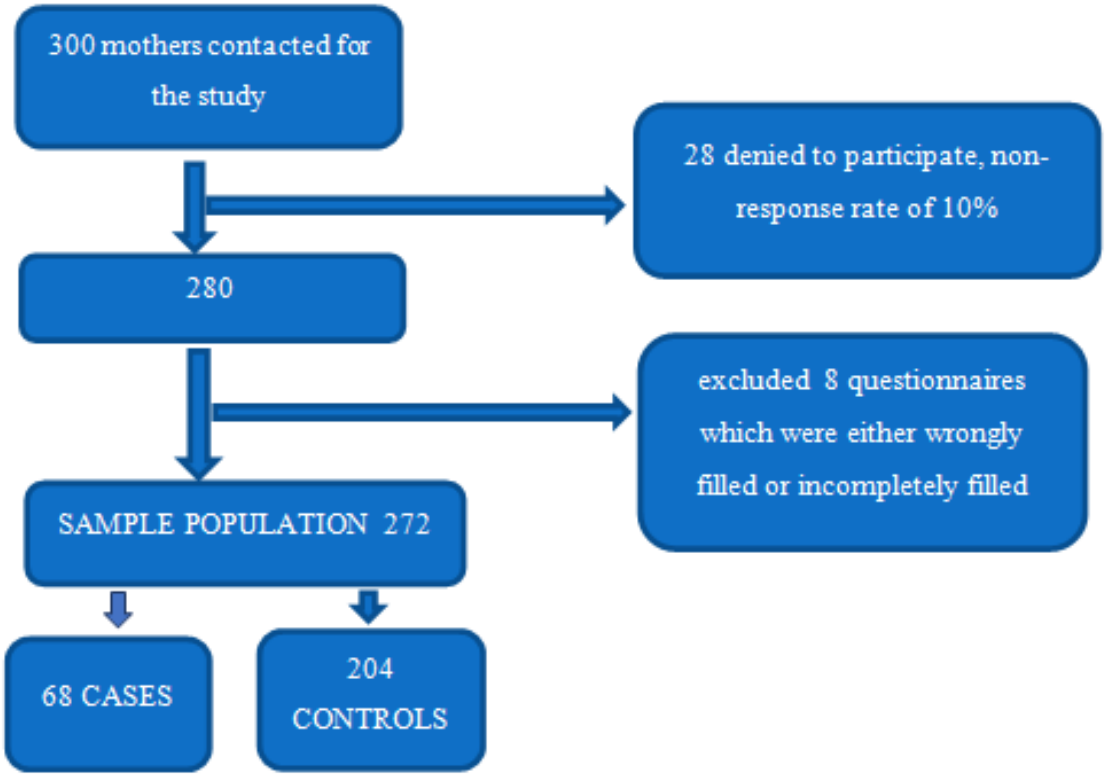

Figure 1:- Flowchart of inclusion.

Sociodemographic Characteristics of the Study Population

Of our participants, the most represented age group 137(50.37%) were those aged 20 to 29 years. The women's partners were mostly aged between 30 to 39 years. A total of 155(56.99%) women in our study were married and 219(80.51%) lived in rural areas. The majority 90(33.09%) of our participants were housewives and we had 177(65.07%) women that were multigravida. A significant number 235(86.4%) of mothers had attained at least a secondary education and 207(76.10%) of our participants lived with their partner as of the time of our interview. (Table 01)

Table 1:- Sociodemographic characteristic of study participants and their partners in BRH, West Cameroon.

Variables	Mothers with LBW babies Proportion (%)	Mothers with NBW babies Proportion (%)	TOTAL Proportion (%)
Total	68	204	272
Age group (years)			
< 18	1(1.47)	00	1(0.37)
18 – 20	12(17.65)	10(4.90)	22(8.09)
20 -29	32(47.06)	105(51.47)	137(50.37)
30-39	18(26.47)	83(40.69)	101(37.13)
40-49	5(7.35)	6(2.94)	11(4.04)
Age group of partner (years)			
20 – 29	28(41.18)	41(20.10)	69(25.37)
30 – 39	23(33.82)	98(48.04)	121(44.49)
40 – 49	15(22.06)	46(22.55)	61(22.43)
50 – 59	1(1.47)	12(5.88)	13(4.78)
>60	1(1.47)	7(3.43)	8(2.94)
Religion			
Catholic	30(44.12)	116(57.43)	146(54.07)
Protestant	26(38.24)	54(26.73)	80(29.63)
Pentecostal	7(10.29)	16(7.92)	23(8.52)
Animist	1(1.47)	8(3.96)	9(3.33)
Muslim	4(5.88)	8(3.96)	12(4.44)
Marital status			
Married	33(48.53)	122(59.80)	155(56.99)
Single	35(51.47)	77(37.75)	112(41.18)
Others (widow, separated)	00	5(2.45)	5(1.84)
Residence			
Urban	61(89.7)	46(22.55)	53(19.49)
Rural	7(10.29)	158(77.45)	(80.51)
Maternal occupation			
Governmentworker	9(13.24)	20(9.80)	29(10.66)
Privateemployee	11(16.18)	51(25.00)	62(22.79)
Housewife	25(36.76)	65(31.86)	90(33.09)
Merchant	7(10.29)	30(14.71)	37(13.60)
Farmer	4(5.88)	4(1.96)	8(2.94)
Student	12(17.65)	34(16.67)	46(16.91)
Partners occupation			
Governmentemployee	13(19.12)	36(17.65)	49(18.01)
Privateemployee	33(48.53)	83(40.69)	116(42.65)
Merchant	14(20.59)	49(24.02)	63(23.16)
Farmer	4(5.88)	16(7.84)	20(7.35)
Student	4(5.88)	20(9.80)	24(8.82)
Maternallevel of education			
Not schooled	4(5.88)	6(2.94)	10(3.68)
Primary	8(11.76)	19(9.31)	27(9.93)
Secondary	25(36.76)	78(38.24)	103(37.87)
More thansecondary	31(45.59)	101(49.51)	132(48.53)
Partnerslevel of education			
Not schooled	6(8.82)	4(1.96)	10(3.67)
Primary	3(4.41)	15(7.35)	18(6.62)
Secondary	22(32.25)	61(29.90)	83(30.51)
More thansecondary	37(54.41)	124(60.78)	161(59.19)
Gravidity			
Primigravida	24(35.29)	71(31.80)	95(34.93)

Multigravida	44(64.71)	133(65.20)	177(65.07)
Parity			
Multipare	24(35.29)	68(33.33)	92(33.82)
Primipare	44(64.71)	136(66.67)	180(66.18)
Currently living withpartner			
Yes	45(66.18)	162(79.41)	207(76.10)
No	23(33.82)	42(20.59)	65(23.90)

*LBW: Low-birth-weight, NBW: Normal-birth-weight

Among the 272 mothers interviewed regarding their experiences of IPV during pregnancy, 120 reported experiencing at least one form of IPV, yielding an overall prevalence of 44.1% for IPV during pregnancy.Psychological violence emerged as the most prevalent form, reported by 113 participants (41.54%).A higher proportion of mothers who delivered low birth weight (LBW) infants reported experiencing some form of IPV compared to those with normal birth weight (NBW) infants: 43 (63.24%) vs. 77 (37.75%), respectively.Women who experienced any form of IPV during pregnancy were nearly three times more likely to deliver a low-birth-weightinfant (OR= 2.83; 95% CI: 1.60–5.00; $p < 0.05$) compared to those who did not experience violence. Specifically,the experience ofpsychological violence(OR=2.80, 95% CI: 1.58–4.89; $p< 0.05$) increased the likelihood of having low birth weight babies. Women with controlling partners (N=68) had greater likelihood to deliver a LBW infant (OR= 2.18; 95% CI: 1.20–3.96).

Table 2:- IPV during pregnancy and the risk of delivering a low-birth-weight infant.

Violence	LBW	NBW	OR[95%CI]	P value
Sexual violence n=28(10.3%)				
Yes	7(10.29)	21(10.29)	1.00 [0.41-2.47]	1.00
No	61(89.71)	183(89.71)		
Physical violence n=30(11.0%)				
Yes	9(13.24)	21(10.29)	1.33 [0.58-3.06]	0.50
No	59(86.76)	183(89.71)		
Psychological violence n=113(41.5%)				
Yes	41(60.29)	72(35.29)	2.78[1.58-4.89]	<0.001
No	27(39.71)	132(64.71)		
Over all types of violence n=120(44.1%)				
Yes	43(63.24)	77(37.75)	2.84 [1.61-5.01]	<0.001
No	25(36.76)	127(62.25)		
Partnerscontrollingbehaviour n=68(25.0%)				
Yes	25(36.76)	43(63.24)	2.18 [1.19-3.96]	0.01
No	43(21.08)	161(78.92)		

Patterns of IPV

The most common psychological abuse was verbal insults (81 cases, 29.8%), while physical violence most frequently involved slapping or throwing objects (22 cases, 8.1%). Sexual violence primarily manifested as forced intercourse (19 cases, 7.0%). Controlling behaviours were reported by 68 women (25.0%), with partners frequently demonstrating suspicion of infidelity (15 cases, 5.5%) or anger when women spoke to other men (26 cases, 9.6%).

Table 3:- Patterns of IPV among pregnant women in BRH, West Cameroon.

Pattern of IPV	Yes	Percent (%)
SEXUAL VIOLENCE N=28 (10.29%)		
Forced to do something sexual that is degrading or humiliating	1	3.6
Having unwanted sexual intercourse because of fear from partner	10	35.7
Physically forced to have sexual intercourse	19	67.9
PHYSICAL VIOLENCE N= 30 (11.03%)		
Threatened to use or actually used a gun, knife or other weapons on you	2	6.7
Choked or burnt you on purpose	0	0
Hit youon the abdomen	1	3.3

Hit you with his fist or something else that could hurt you	4	13.3
Push you or shoved you or drag your hair	5	16.7
Slapped you or throw something at you that could hurt you	22	73.3
PSYCHOLOGICAL VIOLENCE N=113 (41.54%)		
Threatened when visiting friends/family	14	12.4
Scared or intimidated on purpose	10	8.8
Belittled or humiliated Infront of others	14	12.4
Insulted or made to feel bad about yourself	81	71.7
PARTNER'S CONTROLLING BEHAVIOUR N=68(25.0%)		
Did he often get suspicious that you are unfaithful	15	22.1
Did he get angry if you speak with another man	26	38.3
Did he insist on knowing where you are all the time	12	17.6
Did he ignore you and treat you indifferently	15	22.1
Did he try to restrict contact with your family of birth	4	5.9
Did he try of keep you from seeing your friends	12	17.6
He expects you to ask for permission before seeking ANC for yourself	10	14.7

Risk Factors Of Intimate Partner Violence In Our Study Population

We identified three factors associated with IPV in our study population. Mothers with parental history of IPV were two times more likely to experience IPV than those who had no parental history of IPV OR: 2.00[1.15-3.47] P<0.05. Also, women who had partners with controlling behaviour were up to 9 times more likely to experience IPV than those with non-controlling partners OR: 9.05[4.62-17.72]P=0.00.

On the other hand, mothers who had a religious marriage were two times less likely to experience IPV OR:0.51[0.26-1.01]. This association was statistically significant as p value was 0.05.
Women who were currently living with their partners were less likely to experience IPV OR:0.83[0.47-1.44]. but this association was not statistically significant (p>0.05)

Women who experienced violence in their childhood were 1.5 times more likely to experience IPV OR: 1.52[0.67-3.42]. This too was not statistically significant..

Women who had desired their pregnancy were less likely to experience IPV OR: 0.85[0.47-1.54] compared to those women who had not desired the pregnancy. This association was not statistically significant.
There was almost no association between level of education and the experience of IPV OR:1.0[0.61-1.62]

Housewives were less likely to experience IPV compared to women with other professions OR: 0.70[0.42-1.17]. This association was however not statistically significant p>0.05
Women whose partners consumed alcohol everyday were less likely to experience IPV; OR:0.78[0.46-1.31]. This associatiton was not statistically significant p>0.05.

Table 4:- Bivariate logistic regression analysis with IPV among pregnant women at the BRH.

VARIABLE	IPV : n (%)	NO IPV : n (%)	OR[95% CI]	P-Value
Total	120(100%)	152(100%	1.14[0.62-2.09]	0.67
Residence				
Urban	98(81.67)	121(79.61)	1.14[0.62-2.09]	0.67
Rural	22(18.33)	31(20.39)		
Currently living withpartner				
Yes	89(74.17)	118(77.63)	0.83 [0.47-1.45]	0.50
No	31(25.83)	34(22.37)		
Violence in childhood				
Yes	14(11.67)	12(8.0)	1.52 [0.67-3.42]	0.31
No	106(88.33)	138(92.0)		
Parental history of IPV				
Yes	**40(33.33)**	**30(20.0)**	**2.00 [1.15-3.47]**	**0.01**

No	**80(66.67)**	**120(80.0)**		
Desire of pregnancy				
Yes	94(78.33)	123(80.92)	0.85[0.47-1.54]	0.59
No	26(21.67)	29(19.08)		
Civil marriage				
Yes	32(26.89)	46(30.46)	0.84 [0.49-1.43]	0.52
No	87(73.11)	105(69.54)		
Religiousmarriage				
Yes	14(11.76)	31(20.67)	**0.51 [0.26-1.01]**	**0.05**
No	**105(88.24)**	**119(79.33)**		
Controllingbehaviour				
Yes	55(45.83)	13(8.55)	**9.05 [4.62-17.72]**	**<0.001**
No	**65(54.17))**	**139(68.14)**		
Education level of the mother (more than secondary)				
Yes	59(50.43	73(0.34)	0.99[0.61-1.62]	0.99
No	58(49.57)	72(49.66)		
Mother's occupation (housewife)				
Yes	44(38.60)	46(38.67)	0.70[0.42-1.17]	0.17
No	70(61.40)	104(69.33)		
Alcohol consumption by partner (everyday)				
Yes	48(49.48)	49(50.52)	0.78 [0.46-1.31]	0.34
No	60(43.13)	79(56.83)		

Risk Factors Of Lbw Identified In Our Study Population

Following a bivariate logistic regression analysis, some factors were found to be associated with LBW in mothers at the Bafoussamregional hospital.

The mothers who resided in anrural setting were two times more likely OR: 2.54[1.08-5.93] to have low birth weight babies and this association was statistically significant. P-value;0.03

Also, those mothers who did not live with their partners were less likely to have low birth weight babies OR:0.51[0.28-0.93]. This association was statistically significant (P-value:0.0281). Also mothers who did not have both civil and religious marriage were two times more likely to have low birth weight babies OR:2.40[1.34-4.29] and 2.17[1.09-4.28]. these associations were both statistically significant (p-value<0.05)

As concerns the participants gravidity, primigravida were 1.02 times more likely to have low birth weight babies compared to multigravida OR:1.02[0.5751-1.8154]. This finding was not statistically significant since the p-value>0.05.

Table 5:- Bivariate logistic regression analysis with LBW among pregnant women at the BRH.

Variable	LBW : n(%)	NBW : n(%)	OR[95%CI]	P-value
Total	68(100%)	204(100%)		
Residence (Urban/Rural)				
Rural (Yes)	7(10.29)	46(22.55)		
Urban(No)	**61(89.71)**	**158(77.45)**	**2.54 [1.09-5.93]**	**0.03**
Currently living with partner (Yes/No)				
Yes	**23(33.82)**	**42(20.59)**		
No	45(66.18)	162(79.41)	**0.51 [0.28-0.93]**	**0.03**
Gravidity (Primigravide/Multigravide)				
Yes	24(35.29)	71(34.80)	1.02 [0.58-1.82]	0.94
No	44(64.71)	133(65.20)		
Parity (Primiparous/Multiparous)				
Yes	68(33.33)		1.09 [0.61-1.94]	0.77
No	136(66.67)			
Desire of pregnancy (Yes/No)				

Yes	51(75)	166(81.63)	0.69 [0.36-1.32]	0.26
No	17(25)	38(18.63)		
Civil marriage				
Yes	29(43.28)	49(24.14)		
No	**38(56.72)**	**154(75.86)**	**2.40 [1.34-4.29]**	**0.003**
Customarymarriage				
Yes	37(55.22)	92(45.32)	1.48 [0.85-2.59]	0.16
No	30(44.78)	111(54.68)		
Religiousmarriage (Yes/No)				
Yes	17(25.76)	28(13.79)		
No	**49(74.24)**	**175(86.21)**	**2.17 [1.09-4.29]**	**0.03**
Educational status of mother (More than secondary)				
Yes	31(48.44)	101(51.01)	1.11 [0.63-1.95]	0.72
No	33(51.56)	97(48.99)		
Occupation of mother (Housewife)				
Yes	25(39.06)	65(32.50)	0.75[0.42-1.35]	0.34
No	39(60.94)	135(67.50)		

After running a multiple regressionanalysis, the riskfactors of LBW were all type violence aOR 3.26[1.76-6.04], ruralresidence aOR2.67[1.05-6.78] and partnerscontrollingbehavior aOR2.18[1.20-3.96]. Not living withpartnerhad a protective roleaOR 0.5294[0.27-1.03]whichwas not statisticallysignificant p=0.06. Not having a civil and religiousmarriagewerealsoriskfactorsaOR 1.74[0.74-4.12]and 2.04[0.99-3.95] respectivelythoughtheywere not statisticallysignificant.

Table 6:- Factors independently associated with IPV and LBW.

Variable	Adjusted OR	P-value
Currently living withpartner	0.5294[0.2721-1.0300]	0.0611
Religiousmarriage	1.7441[0.7368-4.1282]	0.2058
All type violence	3.2639[1.7611-6.0488]	0.0002
Civil marriage	2.0471[0.9997-4.1918]	0.0501
RuralResidence	2.6743[1.0541-6.7853]	0.0384
Partnerscontrollingbehaviour	2.1781[1.1992-3.9560]	0.0106

Discussion:-

This study was conducted to determine the prevalence, patterns, and factors associated with IPV during pregnancy among mothers of LBW and NBW infants at the BRH, and to investigate whether IPV is a factor associated with LBW. To achieve this, we carried out an unmatched case-control, hospital-based study.Of the 272 participants, 68 (25%) were mothers of LBW babies, while 204 (75%) were mothers of NBW babies. The most common form was psychological violence (41.54%). Multivariate analysis revealed that "any type of IPV" and partner's controlling behaviour were significantly associated with LBW.

Our reported IPV prevalence (44.12%) shows remarkable consistency with hospital-based studies from neighboring countries including Cameroon (38.7%) [12], Ethiopia (41.1% to 44.5%) [13,14], Kenya (37%) [15], and Nigeria (44.6%) [16]. These similarities are likely due to comparable study designs and similar data collection tools.However, our prevalence contrast with significantly lower rates reported in China (7.7%) [17], Namibia (8%) [18], Tanzania (27%) [9], and South Africa (20%) [19]. Conversely, studies in The Gambia (67%) [20] and Zimbabwe (65.4%) [21] reported higher IPV rates than ours. These disparities likely stem from a complex interplay of methodological differences, healthcare system factors, and Cameroon's unique sociocultural environment, where ongoing civil unrest may have intensified violence against women [22].

The predominance of psychological violence (41.5%) in our findings reveals important patterns about the nature of abuse in this population. While this mirrors trends observed in The Gambia (43%) [20], it substantially exceeds estimates from Ethiopia (16-20%) [14] and Kenya (29%) [15]. This variation may reflect fundamental cultural differences in how emotional abuse is perceived, experienced, and reported across different societies The relatively lower but still concerning prevalence of physical violence (11.0%) presents an interesting contrast - while it's significantly lower than Ethiopian reports (29%) [23], it closely aligns with findings from high-income countries

like the United States (11.1%) [24]. This similarity across vastly different contexts suggests potential universal thresholds for reporting physical abuse, possibly due to shared stigma surrounding physical violence against pregnant women. The reported sexual violence prevalence (10.3%) occupies a middle ground between higher Ethiopian (19.8%) [13] and lower Brazilian (3%) [25] estimates, possibly reflecting regional norms around sexual autonomy in marriage.Sexual violence (10.29%) in our study was lower than in Ethiopia (19.8%) [13] but higher than in Brazil (3%) [25]. Cultural beliefs, particularly the misconception that sexual violence does not exist in marriage, could contribute to underreporting and variation across studies.

Our analysis of factors associated with IPV in our population were partner's controlling behaviour**.**This supports findings by Aizpurua et al. (2017), who noted controlling behaviour as an early indicator of IPV [26].This finding aligns with comprehensive multinational studies [20,27] and rigorous longitudinal research [28] demonstrating how childhood exposure to violence shapes future relationship dynamics. Perhaps most striking was the exceptionally strong association with partner controlling behaviours (OR=9.05), which not only corroborates global evidence identifying control as a precursor to violence [26] but suggests it may be an even more potent predictor in our study context. The apparent protective effect of religious marriage invites interesting questions about the role of social support systems and community accountability in preventing IPV, though we must consider potential reporting biases in these sensitive matters [29].

From a clinical perspective, our most significant contribution is the robust demonstration of IPV's independent association with low birth weight (aOR=3.26) after controlling for key confounders. This finding provides strong support for biological pathways linking chronic stress from abuse to impaired fetal growth and development [3,4]. The consistency of this effect size with studies from Brazil and South Africa [19,25] suggests these mechanisms may operate similarly across diverse populations. The unexpected association between urban residence and LBW (aOR=2.67) merits special attention, as it contradicts some conventional wisdom about rural health disparities. This may reflect unique environmental stressors in urban Cameroon or differences in help-seeking behaviours that warrant targeted investigation.

Study strengths and limitations:
In our study, the unmatched case-control methodology provided adequate statistical power to detect significant associations between IPV and birth outcomes.Our use of a WHO-adapted questionnaire enabled standardized measurement of all IPV forms (psychological, physical, and sexual), enhancing comparability with international studies.Despite these strengths, our study is subjected to some limitations.While providing clinical insights, our recruitment from a referral hospital may limit generalizability to community populations. Also,underreporting of IPV due to stigma remains a concern, particularly for sensitive forms like sexual violence, potentially leading to prevalence underestimated. Thirdly, the cross-sectional design prevents definitive conclusions about whether IPV exposure preceded or caused the observed birth outcomes. Finally, theretrospective reporting of childhood exposures and violent experiences may be subject to memory inaccuracies, especially for psychological abuse.

Conclusion:-

This study investigated the link between intimate partner violence (IPV) during pregnancy and low birth weight (LBW) in a Cameroonian hospital setting. The results demonstrate that IPV is a significant concern, with psychological abuse being the most reported form. Women exposed to IPV had increased likelihood of delivering LBW infants compared to those who did not experience violence.Other associated factors included a history of parental violence, absence of religious marriage, and controlling behaviours by partners. These findings reinforce existing evidence on the harmful consequences of IPV on maternal and fetal health.To address this public health challenge, we recommend integrating routine IPV screening into prenatal care and implementing support programs for affected women. Such measures could help mitigate the impact of violence and improve pregnancy outcomes. Strengthening awareness and healthcare responses to IPV remain crucial for safeguarding maternal and child well-being.

Conflict of Interest
The authors declare that they have no conflict of interest.

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