International Journal of Nursing, Midwife and Health Related Cases, 12(3),16-30, 2026
Print ISSN: 2397-0758 (Print),
Online ISSN: 2397-0766 (Online)
Website: https://www.eajournals.org/
Publication of the European Centre for Research Training and Development -UK

Intimate Partner Violence among Pregnant Adolescents Attending Primary Health Care Center in Osun State, Nigeria

Oluwakemi Alice Oluwafemi
Department of Community/Public Health Nursing, Afe Babalola University, Ado-Ekiti, Nigeria

Elizabeth Funmilayo Ojo
Department of Nursing, Afe Babalola University, Ado-Ekiti, Nigeria

Theresa Olaitan Bamigboye
Department of Community/Public Health Nursing, Afe Babalola University, Ado-Ekiti, Nigeria
Corresponding author: Oluwafemi Oluwakemi Alice, email: kemilce@yahoo.co.uk, Phone number:+2348038489722, ORCID- 0009-0002-9004-2185

doi: https://doi.org/10.37745/ijnmh.15/vol12n31630 Published November 01, 2026

Citation: Oluwafemi O.A., Ojo E.F., Bamigboye T.O. (2026) Intimate Partner Violence among Pregnant Adolescents Attending Primary Health Care Center in Osun State, Nigeria, *International Journal of Nursing, Midwife and Health Related Cases*, 12(3),16-30

A**bstract:** *Intimate partner violence (IPV) in pregnancy harms maternal and child health, but evidence on pregnant adolescents in Nigerian primary health care (PHC) is scarce. We assessed IPV prevalence, forms, frequency, consequences and disclosure in Osun State. A convergent mixed-methods study was conducted in nine PHCs across three LGAs in 2026. In total, 470 pregnant adolescents completed questionnaires and 18 completed in-depth interviews. Data were analysed using descriptive statistics, chi-square and Kruskal-Wallis tests, and content analysis, then integrated in a joint display. Forced sex (60.2%), phone monitoring (54.0%), physical violence (52.1%), insults (51.7%), isolation (51.7%) and refusal of family planning (50.4%) were reported by at least half of respondents. Consequences included anxiety or fear (51.3%) and missed antenatal visits (44.9%). Most (82.6%) had told no one, none had told a health worker, and 63.8% had never been asked about violence. Interviews cited stigma, fear of retaliation and distrust of services.*
IPV is common but hidden. Routine private enquiry, trained responders, referral pathways and attention to reproductive coercion are needed.
Keywords: intimate partner violence, pregnant adolescents, primary health care, antenatal care, reproductive coercion, Nigeria

INTRODUCTION

Intimate partner violence (IPV) is a major public health and human rights problem. The World Health Organization estimates that nearly one in three women, about 840 million, have

experienced partner or sexual violence in their lifetime, and that this figure has barely changed since 2000 (WHO, 2025). The global burden attributable to IPV is large and persistent (Flor et al., 2025). During pregnancy, IPV is associated with adverse maternal and newborn outcomes, including preterm birth and low birth weight (Da Thi Tran et al., 2022; Belay et al., 2022; Chen et al., 2024), and with anxiety, depression and suicidal ideation in the perinatal period (Navarrete et al., 2020; Díaz-Ogallar et al., 2025).

Adolescence is a period of heightened risk. Many adolescents enter intimate relationships while economically dependent and with limited power to negotiate sex, contraception or daily decisions (Kaufman & Walsh, 2021), and pregnancy can deepen dependence on a partner and expose girls to stigma and reduced family support (Armah-Ansah et al., 2025; Adaramoye et al., 2025). A systematic review in sub-Saharan Africa reported IPV during pregnancy among adolescents ranging from 8.3% to 41% (Adjimi Nyemgah et al., 2024). Adolescent pregnancy remains common in Nigeria and is shaped by poverty, interrupted schooling and unequal gender relations (Akanbi et al., 2021; Alukagberie et al., 2023; Mbulu et al., 2024). IPV against pregnant women has been documented in Osun State (Ayeni & Tekbaş, 2021), but facility-based evidence specific to pregnant adolescents is lacking.

Primary health care centres are often the first and only point of formal contact for pregnant adolescents and offer repeated antenatal visits at which violence could be identified. Yet routine enquiry about IPV in Nigerian antenatal settings is hindered by lack of privacy, limited resources and unclear referral pathways (Musa-Maliki & Duma, 2024), and attendance does not imply willingness to disclose (Adaramoye et al., 2025). Without local estimates of how common IPV is, which forms predominate and whether adolescents are asked or tell anyone, PHC services cannot plan an appropriate response.

We used the socio-ecological model, which views IPV as arising from interacting influences at individual, relationship, household, community and structural levels (Armah-Ansah et al., 2025), to guide the study. The aim was to assess the prevalence, forms, frequency, risk context, health consequences and disclosure of IPV among pregnant adolescents attending selected PHCs in Osun State, Nigeria, using survey and interview data.

METHODS

Study design and setting

We used a convergent mixed-methods design in which quantitative (questionnaire) and qualitative (interview) data were collected during the same period, analysed separately and integrated at interpretation (Creswell & Plano Clark, 2018; Fetters et al., 2013). The study was conducted in 2026 in PHCs in Osun State, south-western Nigeria, which has 30 local government areas (LGAs) in three senatorial districts. One LGA was selected from each district: Ife Central, Ede North and Osogbo. Three PHCs providing antenatal care were selected in each LGA, giving nine facilities. Facility records showed that 150, 175 and 270 adolescents attended antenatal care in the three months before the study in Ife Central, Ede North and Osogbo, respectively.

Participants and sampling

Participants were pregnant adolescents older than 12 and younger than 20 years attending antenatal clinics at the selected PHCs. Pregnant women aged 20 years or older and adolescents not attending the selected clinics were excluded. For the survey, the sample size was calculated with Cochran's formula (anticipated proportion 41% based on Adjimi Nyemgah et al., 2024; 5% margin of error), adjusted for the finite population of each LGA, with a 10% allowance for non-response. This gave target samples of 133, 150 and 207 in Ife Central, Ede North and Osogbo respectively (total 490). Questionnaires were returned by 127, 146 and 197 adolescents (total 470; 95.9%). For the qualitative component, two adolescents were purposively selected from each PHC (n = 18).

Instruments

A structured, pre-tested questionnaire with seven sections was used: (A) socio-demographic characteristics; (B) prevalence of psychological, controlling, physical and sexual IPV (15 yes/no items); (C) frequency of IPV behaviours (14 items on a five-point scale from "never" to "very frequently"); (D) forms of IPV experienced during pregnancy (10 yes/no items); (E) risk-related characteristics (10 items); (F) health consequences (7 yes/no items); and (G) disclosure and preventive measures. Internal reliability of the questionnaire was tested using SPSS version 27, the result shows high reliability and inter- item correlates with a score of 0.89. Reliability of the interview guide with open-ended questions was ensured by giving the guide to experts in nursing field and research, and was also piloted with 10 teenagers from a non-participating PHCs. They were asked if the question were clear and simple to understand.

Data collection

The first author visited each PHC on antenatal clinic days. After the purpose of the study was explained and consent obtained, questionnaires were completed and collected immediately. Interviews were conducted one-to-one in a private space, lasted 10–15 minutes and were audio-recorded. Participants were assured of confidentiality. Recruitment of interviewees continued until no new content emerged (data saturation).

Data analysis

Quantitative data were analysed in SPSS version 27. Categorical variables are presented as counts and percentages. Differences in proportions across the three LGAs were tested with Pearson chi-square tests, and differences in ordinal scores with the Kruskal-Wallis test; $p < 0.05$ was considered significant. These tests assess whether responses differ between LGAs; they do not test association with IPV exposure. Frequency scores were ranked by combined mean. Interview recordings were transcribed and analysed by qualitative content analysis in six steps (immersion, extraction of key phrases, grouping into categories, clustering into themes, description, and review by the supervisor and co-researchers), supported by ATLAS.ti. Integration used a joint display in which each interview theme was placed beside the matching survey results and classified as convergence, partial convergence, complementarity, divergence, or no qualitative corroboration. Trustworthiness of the qualitative data was addressed through credibility, transferability, dependability and confirmability (Lincoln & Guba, 1985).

Ethical considerations

Ethical approval was granted by the Research Ethics Committee of the Osun State Ministry of Health (protocol number OSHREC/PRS/2026/842/01/216) and by the ethics committee of Afe Babalola University. Participants were informed of the purpose, procedures, risks and benefits, and that participation was voluntary and would not affect their care. [Authors to state how informed consent, and assent with parental or guardian permission for participants under 18 years, was obtained.] Questionnaires were anonymous, data were stored securely with restricted access, and referral pathways were available for participants who were distressed or at immediate risk, in line with guidance on ethical research on violence (WHO, 2016).

RESULTS

Characteristics of participants

Of the 470 respondents, 127 (27.0%) were from Ife Central, 146 (31.1%) from Ede North and 197 (41.9%) from Osogbo (Table 1). About half (53.6%) had completed secondary education, 29.4% had no formal education and 17.0% had primary education only. Most were unmarried (76.6%) and unemployed (58.5%), 64.3% came from polygamous households, and 67.4% reported a monthly income of ₦50,000–₦100,000. The 18 interviewees were in late adolescence (17 years or older), and most had secondary education.

Table 1. Socio-demographic characteristics of respondents, n = 470

Items	Ife Central (n = 127)	Ede North (n = 146)	Osogbo (n = 197)
No formal education	37 (29.1)	48 (32.9)	53 (26.9)
Primary	30 (23.6)	32 (21.9)	18 (9.1)
Secondary (completed)	60 (47.2)	66 (45.2)	126 (64.0)
Unmarried	97 (76.4)	113 (77.4)	150 (76.1)
Married	30 (23.6)	33 (22.6)	47 (23.9)
Unemployed	85 (66.9)	94 (64.4)	96 (48.7)
Self-employed	30 (23.6)	28 (19.2)	80 (40.6)
Public employed	12 (9.4)	24 (16.4)	21 (10.7)
Polygamous	77 (60.6)	99 (67.8)	126 (64.0)
Monogamous	50 (39.4)	47 (32.2)	71 (36.0)
Less than ₦50,000	25 (19.7)	48 (32.9)	40 (20.3)
₦50,000–₦100,000	94 (74.0)	91 (62.3)	132 (67.0)
₦100,000 and above	8 (6.3)	7 (4.8)	25 (12.7)

Prevalence and forms of IPV

Six of the 15 indicators were reported by at least half of respondents (Table 2): forced sexual intercourse (60.2%), monitoring of phone, messages or social media (54.0%), being pushed, slapped, punched, kicked or beaten (52.1%), insults and humiliation (51.7%), being kept from seeing friends or family (51.7%) and a partner's refusal to allow family planning or contraception (50.4%). Physical injury during the current pregnancy was reported by 44.5%, and 44.0% said they had not wanted the pregnancy when it occurred. Less common behaviours

included use or threat of a weapon (35.3%), prevention or delay of clinic visits (32.3%) and being forced into sexual acts that caused fear or discomfort (19.8%). Only two of the 15 indicators differed significantly across LGAs: insults and humiliation were more frequent in Ife Central (59.8%) and Ede North (57.5%) than in Osogbo (42.1%; p = .002), whereas intimidation was more frequent in Osogbo (55.3%) than in Ife Central (40.9%) or Ede North (40.4%; p = .007).

Table 2. Prevalence of IPV behaviours among pregnant adolescents (N = 470)

Behaviour (partner has ever…)	Total	Ife Central	Ede North	Osogbo	p (χ^2, df = 2)
Psychological abuse					
Insulted or humiliated you	243 (51.7)	76 (59.8)	84 (57.5)	83 (42.1)	.002
Threatened to hurt you or someone you care about	215 (45.7)	64 (50.4)	58 (39.7)	93 (47.2)	.182
Used or threatened to use a weapon	166 (35.3)	48 (37.8)	48 (32.9)	70 (35.5)	.696
Intimidated you on purpose	220 (46.8)	52 (40.9)	59 (40.4)	109 (55.3)	.007
Controlling behaviours					
Tried to stop you seeing friends or family	243 (51.7)	65 (51.2)	76 (52.1)	102 (51.8)	.989
Monitored phone, messages or social media	254 (54.0)	69 (54.3)	77 (52.7)	108 (54.8)	.927
Prevented or delayed clinic visits	152 (32.3)	40 (31.5)	47 (32.2)	65 (33.0)	.960
Physical violence					
Pushed, slapped, punched, kicked or beaten you	245 (52.1)	65 (51.2)	75 (51.4)	105 (53.3)	.910
Thrown something that could hurt you	207 (44.0)	55 (43.3)	63 (43.2)	89 (45.2)	.915
Physically injured you during this pregnancy	209 (44.5)	54 (42.5)	65 (44.5)	90 (45.7)	.855
Sexual violence and reproductive coercion					
Forced you to have sex	283 (60.2)	78 (61.4)	87 (59.6)	118 (59.9)	.947
Forced sexual acts that frightened or made you uncomfortable	93 (19.8)	24 (18.9)	32 (21.9)	37 (18.8)	.738
Pressured you to become pregnant	185 (39.4)	50 (39.4)	57 (39.0)	78 (39.6)	.995
Refused to allow family planning or contraception	237 (50.4)	63 (49.6)	73 (50.0)	101 (51.3)	.951
Pregnancy not wanted at conception (respondent's report)	207 (44.0)	56 (44.1)	66 (45.2)	85 (43.1)	.930

p values are Pearson chi-square tests of equality of proportions across the three LGAs.

A separate set of ten items asked about forms of IPV during pregnancy. Monitoring or restriction of phone and social media use was reported by 57.9%, physical attack or injury by 46.2%, restriction of contact with friends, family or clinic visits by 46.4%, and pressure to become pregnant or prevention of contraception by 42.8%. In this section, three items differed across LGAs (Kruskal-Wallis): physical attack or injury (59.8% Ife Central, 44.5% Ede North, 38.6% Osogbo; $p = .012$), forced sex or forced sexual acts (52.8%, 26.0% and 11.2%; $p < .001$) and pressure to become pregnant or prevention of contraception (29.9%, 44.5% and 49.7%; $p = .013$). Overall, 43.4% reported feeling bad, worried, hopeless or depressed during pregnancy. Estimates for sexual violence in this section were lower than in Table 2 (27.0% versus 60.2% for forced sex); we discuss this in the limitations.

Frequency of IPV behaviours

On the five-point scale, all 14 behaviours had combined mean scores above 3.4 (Table 3). The highest were refusal to allow family planning or contraception (4.68), prevention or delay of clinic visits (4.67), forced sexual acts that caused fear or discomfort (4.46), insults and humiliation (4.34) and weapon use or threat (4.13). Pushing, slapping, punching or kicking (3.54) and throwing objects (3.43) ranked lowest. Rankings were nearly identical in the three LGAs, and no behaviour differed significantly in frequency between LGAs (Kruskal-Wallis, all $p > .05$; range .408–.981).

Table 3. Mean frequency scores of IPV behaviours (1 = never, 5 = very frequently)

Partners	Ife Central	Ede North	Osogbo	Combined	Rank
Refused to allow family planning or contraception	4.69	4.68	4.67	4.68	1
Prevented or delayed clinic visits	4.67	4.71	4.64	4.67	2
Forced sexual acts that caused fear or discomfort	4.45	4.45	4.47	4.46	3
Insulted or humiliated	4.34	4.37	4.33	4.34	4
Threatened to use or used a weapon	4.13	4.16	4.10	4.13	5
Physically injured during this pregnancy	4.07	3.99	4.11	4.06	6
Monitored phone, messages or social media	4.03	4.07	4.00	4.03	7
Threatened to hurt you or someone you care about	3.91	3.95	3.87	3.91	8
Tried to stop you seeing friends or family	3.89	3.94	3.84	3.88	9
Pressured you to become pregnant	3.82	3.86	3.92	3.87	10
Intimidated on purpose	3.80	3.87	3.78	3.81	11
Forced you to have sex	3.71	3.71	3.76	3.73	12
Pushed, slapped, punched, kicked or beat you	3.56	3.55	3.53	3.54	13
Threw something that could hurt you	3.46	3.34	3.49	3.43	14

Ranks are based on combined means

Risk context

Most respondents did not live with their partners (68.9%), 51.9% reported not having enough privacy at home, 52.6% said their partner had no stable income, 56.2% had no income of their own and 42.3% depended on their partner for something (Table 4). Family support during pregnancy was reported by 57.0%. Partner alcohol use (31.7%) and frequent arguments (45.5%) were less common, and 58.9% said their partner had wanted the pregnancy. Three characteristics were distributed differently across LGAs: partner's stable income (35.4% Ife

Central, 52.7% Ede North, 51.3% Osogbo; $p = .006$), family support (47.2%, 60.3% and 60.9%; $p = .033$) and privacy at home (29.9%, 54.1% and 55.3%; $p < .001$). These are descriptive characteristics of the sample and were not tested against IPV exposure.

Table 4. Risk-related characteristics of respondents, answering "yes"

Characteristic	Total	Ife Central	Ede North	Osogbo	p (χ^2, df = 2)
Partner wanted the pregnancy at conception	277 (58.9)	78 (61.4)	85 (58.2)	114 (57.9)	.800
Partner lives with respondent	146 (31.1)	†	†	†	†
Partner consumes alcohol	149 (31.7)	39 (30.7)	47 (32.2)	63 (32.0)	.960
Partner has stable income	223 (47.4)	45 (35.4)	77 (52.7)	101 (51.3)	.006
Partner ever argues or disagrees with respondent	214 (45.5)	64 (50.4)	64 (43.8)	86 (43.7)	.436
Respondent has own source of income	206 (43.8)	55 (43.3)	64 (43.8)	87 (44.2)	.989
Respondent depends on partner for something	199 (42.3)	54 (42.5)	61 (41.8)	84 (42.6)	.986
Respondent has family support since pregnancy	268 (57.0)	60 (47.2)	88 (60.3)	120 (60.9)	.033
Respondent has enough privacy at home	226 (48.1)	38 (29.9)	79 (54.1)	109 (55.3)	<.001

† Cohabitation was recorded by two items whose site-level distributions were inconsistent; only the pooled figure, which was identical for both, is reported.

Health consequences

About half of respondents reported feeling anxious, worried or constantly afraid (51.3%) and experiencing frequent headaches, body pains or unexplained aches (48.1%) (Table 5). Vaginal bleeding, severe abdominal pain or other pregnancy complications were reported by 47.4%, emotional exhaustion by 43.2% and sleep difficulty by 28.1%. Importantly, 44.9% had missed antenatal appointments because of problems at home or with their partner. Anxiety was most frequent in Osogbo (57.9%) and least in Ife Central (40.2%; $p = .008$); emotional exhaustion followed the same gradient (31.5%, 44.5% and 49.7%; $p = .005$); and sleep difficulty showed the reverse pattern (49.6% in Ife Central versus 15.2% in Osogbo; $p < .001$). Bodily pain, pregnancy complications and missed appointments did not differ across LGAs.

Table 5. Self-reported health consequences

Consequence	Total	Ife Central	Ede North	Osogbo	p (χ^2, df = 2)
Anxious, worried or constantly afraid	241 (51.3)	51 (40.2)	76 (52.1)	114 (57.9)	.008
Trouble sleeping because of stress, fear or worry	132 (28.1)	63 (49.6)	39 (26.7)	30 (15.2)	<.001
Emotionally exhausted or overwhelmed	203 (43.2)	40 (31.5)	65 (44.5)	98 (49.7)	.005
Frequent headaches, body pains or unexplained aches	226 (48.1)	65 (51.2)	69 (47.3)	92 (46.7)	.712
Vaginal bleeding, severe abdominal pain or other complications	223 (47.4)	55 (43.3)	70 (47.9)	98 (49.7)	.521
Missed antenatal appointments because of problems at home or with partner	211 (44.9)	54 (42.5)	66 (45.2)	91 (46.2)	.807

Enquiry, disclosure and help-seeking

Disclosure and enquiry were low (Table 6). Only 17.4% had ever told anyone about problems or violence in their relationship, and all of these had told a family member (70.7%) or friend (29.3%); none had told a health worker. Nearly two-thirds (63.8%) had never been asked about violence or safety by a health worker during antenatal care. Even so, 52.1% said they would feel safe discussing relationship problems at the health centre. None of these indicators differed across LGAs.

Table 6. Enquiry, disclosure and perceived safety

Indicator	Total	Ife Central	Ede North	Osogbo	*p* (χ^2, df = 2)
Has been asked about violence or safety by a health worker	170 (36.2)	49 (38.6)	54 (37.0)	67 (34.0)	.684
Feels safe discussing relationship problems at the health centre	245 (52.1)	62 (48.8)	76 (52.1)	107 (54.3)	.627
Has told anyone about problems or violence in the relationship	82 (17.4)	26 (20.5)	26 (17.8)	30 (15.2)	.474
Among those who told (n = 82): told a family member	58 (70.7)	20 (76.9)	18 (69.2)	20 (66.7)	—
Among those who told (n = 82): told a friend	24 (29.3)	6 (23.1)	8 (30.8)	10 (33.3)	—
Among those who told (n = 82): told a health worker	0 (0.0)	0	0	0	—

Qualitative findings

Four themes emerged from the 18 interviews (Table 7). Seven interviewees reported physical assault during the current pregnancy, and all 18 described threats and hurtful behaviour that left them afraid and humiliated. When abuse occurred, participants sought refuge with friends and neighbours but did not consider reporting to the police or health workers, because they were unsure of being helped or understood. Several said they had told no one, fearing gossip and retaliation by their partner.

Table 7. Themes from interviews with pregnant adolescents (n = 18)

Theme	Sub-theme	Illustrative quotations
Physical violence during pregnancy	Physical assault by partners	R1: "During my pregnancy, my partner physically attacked me on several occasions." R10: "The violence became a frightening part of my experience during pregnancy, and I often felt vulnerable and unsafe."
Threats and psychological abuse	Intimidation, threats, fear and humiliation	R7: "It was not only the physical attacks; the threats and hurtful words also affected me." R3: "I lived with fear and humiliation because I never knew when the situation would become worse."
Coping and response strategies	Reliance on informal social support	R12: "When the abuse happened, I preferred to talk to friends or neighbours who could support me." R17: "I did not consider reporting the matter to the police or health workers because I was not sure they would help or understand my situation."
Disclosure patterns	Non-disclosure of IPV	R14: "I did not tell anyone about what was happening to me." R18: "I was afraid of what people would say, and I also feared that my partner might retaliate if he found out that I had disclosed the abuse."

Integration of quantitative and qualitative findings

Table 8 shows where the two data sets agreed and where they did not. Both confirmed physical and psychological abuse in pregnancy, fear as the main psychological consequence, and non-disclosure to health workers. The interviews explained the survey's low disclosure rate through fear of gossip and retaliation and doubt that formal services would help. Differences in magnitude (for example, 38.9% of interviewees versus 52.1% of respondents reporting physical violence) are expected when a small purposive sample is compared with a larger survey; the survey is the better source of prevalence. Two apparent contradictions were reconcilable: seeking refuge with a neighbour during an incident is not the same as disclosing abuse, and the 52.1% who said they would feel safe talking at the centre contrasts with the 63.8% who had never been asked, suggesting that trust in health workers had rarely been tested. Sexual violence, reproductive coercion, restriction of clinic attendance and obstetric consequences, which dominated the survey results, were not explored in the interviews and therefore rest on one method.

Table 8. Joint display of survey and interview findings

Dimension	Survey (n = 470)	Interviews (n = 18)	Integration
Physical violence	52.1% beaten or assaulted; 44.5% injured during this pregnancy	7 of 18 assaulted during pregnancy; "frightening", "unsafe"	Partial convergence (same direction, lower proportion in small sample)
Psychological abuse and fear	51.7% insulted or humiliated; 46.8% intimidated; 51.3% anxious or afraid	All 18 described threats causing fear and humiliation	Convergence and complementarity
Disclosure	82.6% told no one; none told a health worker; 63.8% never asked	Told no one; feared gossip and retaliation	Convergence; interviews explain the silence
Help-seeking	70.7% of those who told chose family; 29.3% friends; 52.1% would feel safe at the centre	All sought refuge with friends or neighbours; doubted police and health workers would help	Convergence on informal support; divergence on trust in health workers (conditional on being asked)
Sexual violence, reproductive coercion, clinic restriction, obstetric outcomes	60.2% forced sex; 50.4% refused contraception; highest frequency scores; 47.4% bleeding or complications	Not explored	No qualitative corroboration

DISCUSSION

This study provides facility-based evidence that IPV is common, multi-faceted and largely hidden among pregnant adolescents attending PHCs in Osun State. Six of 15 indicators were reported by half or more of respondents, with forced sexual intercourse, monitoring of communication, physical violence, humiliation, isolation and refusal of family planning all above 50%. These figures are higher than the 8.3–41% range reported for IPV during pregnancy among adolescents in sub-Saharan Africa (Adjimi Nyemgah et al., 2024). Several features of our approach may explain part of the difference. We asked about behaviours "ever" experienced, which covers a longer period than pregnancy-only measures; we reported items individually and not as one overall measure; and we collected data face-to-face with assurances of confidentiality, which may have encouraged fuller disclosure than household surveys. The high prevalence also fits the profile of the sample: young, mostly unmarried and unemployed, with low incomes, a profile associated with constrained autonomy and economic hardship, both linked to IPV in pregnancy (Cochran et al., 2022; Kaufman & Walsh, 2021). Because we did not calculate an overall prevalence of any IPV, our results should be compared with other studies cautiously.

A notable finding is the prominence of reproductive coercion and control over health care. Refusal of family planning and prevention of clinic visits had the highest frequency scores, 44.0% reported that the pregnancy was not wanted, and nearly half had missed antenatal visits because of problems at home. This agrees with evidence that IPV undermines contraceptive autonomy (Baritwa & Joho, 2024), that reproductive coercion is associated with pregnancy and mental health outcomes (Grace et al., 2025), and that restricted access to care is a pathway from IPV to adverse reproductive outcomes (Sunmola et al., 2025). Physical acts ranked lowest in frequency despite prevalence above 44%, suggesting that physical violence is common but episodic whereas control and coercion are more continuous. The interviews support this reading: participants described never knowing "when the situation would become worse". Frequency scores should be read as relative rankings, since they were high relative to prevalence and probably reflect the responses of those who experienced each behaviour.

IPV was widespread across the three LGAs. Prevalence differed significantly for only two of 15 indicators, and frequency did not differ for any behaviour. Differences that did emerge, such as forced sex and reproductive coercion in the forms section and anxiety and sleep difficulty among consequences, may reflect local norms, stigma, service availability or willingness to report, as the socio-ecological model would suggest, but our data cannot test this. The opposite site gradients for anxiety and sleep difficulty, in particular, require further investigation before conclusions are drawn.

The risk context was marked by economic dependence and limited privacy. More than half lacked privacy at home, more than half had partners without a stable income, and more than half had no income of their own. Most adolescents did not live with their partners yet reported high levels of violence, which suggests that control operates across separate households, probably through surveillance by phone, financial dependence and contested pregnancy intentions. Partner alcohol use was reported by less than a third, lower than might be expected from studies linking partner drinking to IPV (Aboagye et al., 2022; Adebowale & James, 2020), although adolescents may be unaware of or under-report partners' drinking. It is important to stress that these characteristics were compared across LGAs and were not tested against IPV exposure; they describe the context of the sample and should not be read as established determinants.

The reported consequences, anxiety and fear, bodily pain, bleeding or pregnancy complications and sleep difficulty, are consistent with literature linking IPV in pregnancy to poorer mental and physical health (Navarrete et al., 2020; Díaz-Ogallar et al., 2025; Aeri & Farhoud, 2024). They were self-reported and not tested against IPV exposure, so they should be interpreted as associated with the context of violence and not as proven effects. They also overlap with common pregnancy symptoms. Nevertheless, they are clinically relevant, because they may be the only visible signs of violence in a busy antenatal clinic.

The most actionable finding concerns disclosure and enquiry. Four in five respondents had told no one, none had told a health worker, and almost two-thirds had never been asked, although more than half said they would feel safe if asked. The interviews added that adolescents turn to friends and neighbours, fear gossip and retaliation, and doubt that formal services would help. Taken together, the results suggest that the silence is not simply a matter of adolescents'

reluctance but also of services that do not ask. This is consistent with documented barriers to routine screening in Nigerian antenatal care, including lack of privacy and limited capacity to respond to disclosure (Musa-Maliki & Duma, 2024), and with the influence of social support on help-seeking among young Nigerian women (Adaramoye et al., 2025). Health-sector responses such as counselling, safety planning and facilitated referral are available but depend on implementation capacity (Mercier et al., 2024). Our findings suggest that PHC antenatal care is a missed opportunity for identification and first-line support.

Implications for practice, policy and research

Practice: nurses and midwives should offer private, non-judgemental, provider-initiated enquiry about safety to every pregnant adolescent, alone and never in the presence of a partner or relative, with first-line support, safety planning and referral (WHO, 2013). Cues such as missed visits, unexplained pain, sleep difficulty and a controlling companion should prompt sensitive enquiry.

Services: PHCs need private consultation space, written confidentiality procedures, agreed referral links with social welfare, legal and mental health services, and safeguarding procedures for adolescents under 18 years. Contraceptive counselling should be safety-informed, given the frequency of reproductive coercion.

Education and policy: pre-service and in-service training for nurses, midwives and community health workers should include competency-based content on IPV, adolescent health and trauma-informed communication. Programmes that involve male partners should be voluntary and safety-screened, because partner involvement can increase risk if enquiry takes place in their presence.

Research: studies should test the association between IPV and its determinants and consequences using multivariable methods, include longitudinal follow-up to birth outcomes, deepen qualitative work on sexual violence and reproductive coercion, and evaluate nurse-led enquiry and referral in PHCs.

Strengths and limitations

Strengths include a large sample (95.9% of the target), coverage of three LGAs in all senatorial districts of the state, the combination of survey and interview data, and attention to adolescents specifically. Several limitations should be noted. The design was cross-sectional and based on self-report, so causality cannot be inferred and social desirability or recall bias is possible. Only adolescents attending antenatal care were included; those who do not attend, who may be at higher risk, were missed, and findings cannot be generalised to all of Osun State. Prevalence was reported item by item, and some items from different sections gave inconsistent estimates (for example, forced sex was 60.2% in the prevalence section and 27.0% in the forms section, which used combined wording), indicating that individual estimates should be interpreted with caution. Cohabitation items gave inconsistent site-level distributions and were reported only in pooled form. Association between IPV exposure and risk characteristics or consequences was not tested. Reliability coefficients for the questionnaire sections were not reported. The qualitative sample was small, and the interview guide did not cover sexual violence,

reproductive coercion or controlling behaviour. Preventive measures were assessed mainly through disclosure and enquiry; safety planning and use of formal services were not measured.

CONCLUSIONS

IPV among pregnant adolescents attending PHCs in Osun State is common, takes physical, psychological, sexual and controlling forms, and is similar across the three LGAs studied. Reproductive coercion and restriction of clinic attendance were the most frequently experienced behaviours, and many adolescents reported anxiety, pain, pregnancy complications and missed antenatal visits. Almost none disclosed to a health worker, and most had never been asked. Integrating routine private enquiry, trained first-line response, clear referral pathways and safety-informed contraceptive counselling into adolescent antenatal care offers a practical route for nurses and midwives to identify and support adolescents who are experiencing violence.

Ethical consideration

Ethics approval and consent to participate: Approved by the Osun State Ministry of Health Research Ethics Committee (OSHREC/PRS/2026/842/01/216).

REFERENCES

Aboagye, R. G., Ahinkorah, B. O., Tengan, C. L., Salifu, I., Acheampong, H. Y., & Seidu, A.-A. (2022). Partner alcohol consumption and intimate partner violence against women in sexual unions in sub-Saharan Africa. *PLOS ONE, 17*(12), Article e0278196. https://doi.org/10.1371/journal.pone.0278196

Adaramoye, T. O., Adedini, S. A., & Sunmola, K. A. (2025). Factors influencing help-seeking behaviour among young women with experience of intimate partner violence in Nigeria. *BMC Women's Health, 25*. https://doi.org/10.1186/s12905-025-03934-6

Adebowale, O., & James, B. (2020). The association between intimate partner violence, psychiatric morbidity amongst pregnant women and partner alcohol use in southern Nigeria. *African Journal of Primary Health Care & Family Medicine, 12*(1), Article 2226. https://doi.org/10.4102/phcfm.v12i1.2226

Adjimi Nyemgah, C., Ranganathan, M., & Stöckl, H. (2024). Intimate partner violence during pregnancy against adolescents in sub-Saharan Africa: A systematic review. *Injury Prevention*. https://doi.org/10.1136/ip-2023-044985

Aeri, R., & Farhoud, F. (2024). Intimate partner violence during pregnancy: Impact on women and children: A review. *Journal of Social Behavior and Community Health, 8*(1). https://doi.org/10.18502/jsbch.v8i1.15676

Akanbi, M., Ope, B., Adeloye, D., Amoo, E., Iruonagbe, T., & Omojola, O. (2021). Influence of socio-economic factors on teenage pregnancy. *African Journal of Reproductive Health, 25*(5s), 138. https://doi.org/10.29063/ajrh2021/v25i5s.13

Alukagberie, M. E., Elmusharaf, K., Ibrahim, N., & Poix, S. (2023). Factors associated with adolescent pregnancy and public health interventions to address in Nigeria: A scoping review. *Reproductive Health, 20*. https://doi.org/10.1186/s12978-023-01629-5

Armah-Ansah, E. K., Adejumo, S. A., Ezekobe, E. E., Jalili, A., Ahmed, S., Oko-Oboh, E., Budu, E., & Oga-Omenka, C. (2025). A socio-ecological analysis of intimate partner

violence among women of reproductive age in Nigeria: A multilevel analysis of data from 2008 to 2018 Nigeria demographic and health surveys. *BMC Public Health, 25*. https://doi.org/10.1186/s12889-025-25220-8

Ayeni, O. B., & Tekbaş, S. (2021). Prevalence, frequency, and affecting factors of intimate partner violence against pregnant women in Osun State, Nigeria. *Violence and Gender*. https://doi.org/10.1089/vio.2021.0015

Baritwa, M. S., & Joho, A. A. (2024). Intimate partner violence influences modern family planning use among married women in Tanzania: Cross-sectional study. *BMC Public Health, 24*. https://doi.org/10.1186/s12889-024-17666-z

Belay, H. G., Debebe, G. A., Ayele, A. D., Kassa, B. G., Mihretie, G. N., Bezabih, L. M., & Worke, M. D. (2022). Intimate partner violence during pregnancy and adverse birth outcomes in Ethiopia: A systematic review and meta-analysis. *PLOS ONE, 17*(12), Article e0275836. https://doi.org/10.1371/journal.pone.0275836

Chen, X.-Y., Kin, C., Chen, Q., Gao, S., Ho, F. K., Brownridge, D. A., Leung, W. C., Ip, P., & Chan, K. L. (2024). Intimate partner violence against women before, during, and after pregnancy: A meta-analysis. *Trauma, Violence, & Abuse*. https://doi.org/10.1177/15248380241226631

Cochran, K. A., Kashy, D. A., Bogat, G. A., Levendosky, A. A., Lonstein, J. S., Nuttall, A. K., & Muzik, M. (2022). Economic hardship predicts intimate partner violence victimization during pregnancy. *Psychology of Violence*. https://doi.org/10.1037/vio0000454

Creswell, J. W., & Plano Clark, V. L. (2018). *Designing and conducting mixed methods research* (3rd ed.). SAGE Publications.

Da Thi Tran, T., Murray, L., & Van Vo, T. (2022). Intimate partner violence during pregnancy and maternal and child health outcomes: A scoping review of the literature from low-and-middle income countries from 2016–2021. *BMC Pregnancy and Childbirth, 22*. https://doi.org/10.1186/s12884-022-04604-3

Díaz-Ogallar, M. A., Martínez-Vázquez, S., Peinado-Molina, R. A., Hernández-Martínez, A., & Martínez-Galiano, J. M. (2025). Intimate partner violence during the perinatal period and women's risk of anxiety, depression, and suicidal ideation. *Public Health, 248*, Article 105930. https://doi.org/10.1016/j.puhe.2025.105930

Fetters, M. D., Curry, L. A., & Creswell, J. W. (2013). Achieving integration in mixed methods designs: Principles and practices. *Health Services Research, 48*(6, Pt. 2), 2134–2156.

Flor, L. S., Spencer, C. N., Cagney, J., Gil, G. F., et al. (2025). Disease burden attributable to intimate partner violence against females and sexual violence against children in 204 countries and territories, 1990–2023: A systematic analysis for the Global Burden of Disease Study 2023. *The Lancet*.

Grace, T. K., Gupta, J., Fay, K., Altay, T., Kanselaar, S., & Miller, E. (2025). Pregnancy, birth, and mental health outcomes associated with recent reproductive coercion and intimate partner violence in a crowd-sourced national sample. *Journal of Midwifery & Women's Health*. https://doi.org/10.1111/jmwh.13758

Kaufman, J. M., & Walsh, C. M. (2021). The effects of adolescent and early adulthood intimate partner violence on adult socioeconomic well-being. *The Sociological Quarterly, 63*(4), 733–758. https://doi.org/10.1080/00380253.2021.1953414

Lincoln, Y. S., & Guba, E. G. (1985). *Naturalistic inquiry*. SAGE Publications.

Mbulu, C. O., Yang, L., & Wallen, G. R. (2024). Adolescent pregnancy persists in Nigeria: Does household heads' age matter? *PLOS Global Public Health, 4*(5), Article e0003212. https://doi.org/10.1371/journal.pgph.0003212

Mercier, O., Fu, S. Y., Filler, R., Leclerc, A., Sampsel, K., Fournier, K., Walker, M., Wen, S. W., & Muldoon, K. (2024). Interventions for intimate partner violence during the perinatal period: A scoping review. *Campbell Systematic Reviews, 20*(3). https://doi.org/10.1002/cl2.1423

Musa-Maliki, A. U., & Duma, S. E. (2024). Barriers to routine screening for intimate partner violence during pregnancy in Nigeria. *Heliyon, 10*(9), Article e30504. https://doi.org/10.1016/j.heliyon.2024.e30504

Navarrete, L., Nieto, L., & Lara, M. A. (2020). Intimate partner violence and perinatal depression and anxiety: Social support as moderator among Mexican women. *Sexual & Reproductive Healthcare*, Article 100569. https://doi.org/10.1016/j.srhc.2020.100569

Sunmola, A. M., Morakinyo, L. A., Sunmola, F. T., & Mayungbo, O. A. (2025). The role of healthcare access in the association between intimate partner violence and pregnancy loss in Nigeria. *Discover Public Health, 22*. https://doi.org/10.1186/s12982-025-00916-9

World Health Organization. (2013). *Responding to intimate partner violence and sexual violence against women: WHO clinical and policy guidelines*.

World Health Organization. (2016). *Ethical and safety recommendations for intervention research on violence against women.*

World Health Organization. (2025, November 19). *Lifetime toll: 840 million women faced partner or sexual violence*. https://www.who.int/news/item/19-11-2025-lifetime-toll--840-million-women-faced-partner-or-sexual-violence