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Domestic violence among women attending ante natal care in a tertiary health facility in south-south Nigeria

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Abstract

Background: Domestic violence is a preventable public health problem that is under reported and under diagnosed. Women are usually the most affected and presents with serious psycho-social, physical and reproductive health implications. It violates the fundamental human right of victims and associated with perinatal and maternal morbidity and mortality.
Methodology: The study was a cross sectional descriptive study, conducted among pregnant women attending ante-natal care (ANC) at the ante natal care clinic of the department of Obstetrics and Gynecology (O and G), university of Port Harcourt Teaching Hospital. All eligible pregnant women who visited the ANC clinic were enlisted for the study until the required sample size was attained. Study instrument included a pretested, adapted, interviewer administered, questionnaire which was prepared in English language. Results were presented in simple frequency distribution table while data was analyzed using SPSS version 22.0. Categorical data were analyzed using chi-square test. Ethical clearance was granted by the hospitals ethical committee while permission for the study was also derived from the department of O and G and the Hospital Management.
Result: Results from the study revealed a statistically significant association between alcohol, cigarette ingestion and domestic violence. Results also shows associated risk factors to domestic violence such as low income, religion, poor educational background and unemployment.
Conclusion: Domestic violence is a breach of fundamental human right of those abused. It is significantly associated with alcohol and cigarette ingestion, while it is associated with young age of couple, cohabitation, poor educational background and duration of marriage. Improving women empowerment and education could help curb this social vice.

Key words: Domestic, violence, effects, predictors, prevalence, pregnant, women.

Introduction

Domestic Violence (DV) refers to violence perpetrated against women within a family or in a relationship. About 90-95% of victims are usually women of adolescent or adult age,[1] however victim may be male or female. In its resolve to eliminate violence against women, united nations (UN) defined DV as "Any act of gender-based violence that results in or is likely to result in physical, sexual or psycho social harm or suffering to women including threats of such acts or coercion or arbitrary deprivation of liberty whether occurring in public or private life.[2] Violence against women have in the past referred to as wife abuse, wife assault, battered wife syndrome, intimate partner violence etc. Intimate partner violence is most common type

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of violence against women.[3,4] Other perpetrators of violence against women include family members of spouse.[5] DV is a preventable public health problem which cut across all types of families irrespective of ethnic, socio-economic, cultural or religious background.[2] It breaches the fundamental human rights of women. Various forms of DV have been identified, with physical abuse being the most (64.6%),[6] while sexual abuse was noted as least form of violence against women (2.4%).[7] Other forms of DV includes verbal and psycho social.[8,9] About a quarter of women experience DV in their life time.[2] Also 30% of all partnered women worldwide have experienced physical and or sexual violence by intimate partner at one point.[10] The enormity of the burden of problem is evidenced by studies which shows prevalence high as 72.0% and 66.9%.[2,10] Women of reproductive age are more vulnerable to intimate partner violence.[11] Direct complications of DV against women includes, loss of pregnancy, preterm labor, low birth weight (LBW), hypertension, physical injury and stress,[11] while indirect complications include insufficient weight gain during pregnancy, reduced level of breastfeeding, delay in seeking ante natal care, increased substance abuse.[4] Despite the huge and enormous challenges caused by these social vices, including maternal and perinatal morbidity and mortality, cases are usually under reported and under diagnosed.[12] Worrisome and worse still, victims will not seek formal channel for redress,[13] while most of the affected women will feel safe in the relationship.[9] Looking at the enormity of the problem, it is essential to identify and proffer workable and sustainable solution which this article commits to address, by identifying critical factors associated with DV.

Scholarly articles have showcased numerous effects consequent upon DV. These ranges from mild effects such as delay in seeking ANC, substance abuse,[4] and to more severe and life-threatening forms as miscarriages, perinatal and maternal morbidity and mortality.[12] Studies reviewed have shown overwhelming conformity with various factors which have been identified as correlates of DV. A systematic review by Joy O. et al highlighted the relationship between polygamy and DV.[5,14] Another important factor which presents as a common denominator in all studies reviewed was poor and insufficient formal education. Studies have identified poor educational background as a significant factor in DV.[8,12] Other studies also supports insufficient formal education as key predictor of DV.[4,15] Furthermore, most studies reviewed linked low socio-economic status[16,17] to DV, which is closely associated with poor education. As a consequence, poor paying job or unemployment was also shown as an associated factor in DV.[6] Alcohol consumption which has tendency to compromise self-restraint was identified as a factor associated with DV by several studies.[5,6,8,11,16] It is interesting to note that these studies in their separate research associated alcohol consumption with various forms of DV including sexual abuse of intimate partner. Finally, young age was also associated with DV.[11]

The objective of this study therefore is to determine the prevalence, effects and predictors of DV among pregnant women attending ANC at a tertiary health facility. Some scholarly articles have been published on DV against women, however the rationale which justifies the relevance of this study is to determine the prevalence and predictors of this problem in a low resource setting as UPTH which would be used first hand by the researchers as an advocacy tool in seeking support for implementation of intervention measures to policy makers, non-governmental organization (NGO) and Faith based organization (FBO). Also, it could serve as a vista of opportunity in identifying women who are victims of DV during pregnancy and then, offer direct counselling, education and remediation measures to forestall further abuse. In addition, these women would serve as case finders to identify victims of DV in their communities bearing in mind that the issue on hand is usually under diagnosed and under reported due to cultural factors and stigma associated with it.

Materials and methods

The study is a descriptive cross-sectional study, conducted among pregnant women attending ANC at the ANC clinic in the Department of obstetrics and Gynecology (O&G) UPTH. Pregnant women who did not give consent for the study were excluded. Using the formula for calculating descriptive study,[18] a total sample size of 379 was derived after making adjustments for attrition.

Table 1. Socio-demographic characteristics (Part one)

Variables	**n=379**
Age	**freq. (%)**
20-24	26 (6.8)
25-29	130 (34.3)
30-34	117 (30.8)
35-39	100 (26.0)
40-44	6 (2.1)
Marital status	
Married	286 (75.5)
Single	40 (10.5)
Cohabiting	11 (2.9)
Separated/divorced	42 (11.1)
Religion	
Christianity	366 (96.6)
Islam	13 (3.4)
Occupation	
House wife	64 (16.8)
Civil servant	60 (15.8)
Trader/business	237 (62.4)
Professional	9 (2.5)
Others	9 (2.5)
Ethnic group	
Igbo	173 (46.0)
Housa	2 (0.5)
Yoruba	49 (13.1)
Others	155 (40.4)
Educational status	
None	7 (1.8)
Primary	9 (2.0)
Secondary	193 (51.0)
Tertiary	170 (45.2)
Marriage type	
Monogamous	355 (94.0)
Polygamous	24 (6.0)
Duration of relationship	
<5 years	215 (56.7)
5-9 years	124 (32.7)
=10 years	40 (10.6)
Spouse age	
20 – 24	2 (0.5)
25 – 29	5 (1.3)
30 – 34	42 (11.0)
35 – 39	169 (44.0)
40 – 44	149(39.1)
Others	13 (4.1)

Table 1. Socio-demographic characteristics (Part two)

Variables	**n=379**
Educational status of spouse	
None	5 (1.3)
Primary	2 (0.5)
Secondary	109 (29.0)
Tertiary	263 (69.2)
Spouse occupation	
Unemployed	28 (7.4)
Civil servant	113 (30.0)
Business/ trader	189 (50.2)
Professional	40 (10.4)
Farmer/others	9 (2.0)

Table 2: gynae/obstetric profile

Variables	**n = 379**
Number of deliveries	**freq. (%)**
None	129 (33.9)
1	91 (24.0)
2-4	138 (36.2)
= 5	21 (5.9)
Duration of marriage	
< 5 years	215(56.7)
5 – 9 years	124 (33.1)
= 10 years	40 (10.2)
Current pregnancy (planned or un planned)	
Yes	118 (30.4)
No	261 (69.6)
Gestational age of pregnancy	
1st trimester	60 (15.8)
2nd trimester	175 (46.2)
3rd trimester	144 (38.0)

Sampling technique involved enlisting all eligible pregnant women who came for ANC, at the ANC clinic of the department of O&G over a four weeks period until samples size was achieved. Women who have been enlisted for the study previously were not interviewed again when they present for repeat ANC. Written consent was obtained from respondents after describing study protocol to them. Ethical clearance was granted by ethical review committee of UPTH while permission for the study was given by management of UPTH. Each respondent was then given a pretested, interviewer administered, structured questionnaires which was adapted and prepared in English language. Data obtained from the questionnaires were cleaned and entered in a computer. Results were presented in simple frequency distribution table. Results were analyzed using SPSS version 22, standard edition. Categorical data were analyzed using chi square test while statistical significance was set at 0.05.

Results

Table 1. Socio-demographic characteristics

About 130 (34.3%) women within the age grade 25-29 years participated in the study, while 286(75.5%) of married women, and 237(62.4%) of women who engage in trade/business, were predominant respondents.

Table 3: Respondents history of domestic violence (Part one)

Variables	**n = 379**
Ever been abused?	**Freq. (%)**
Yes	147 (38.8)
No	232 (61.2)
Does husband drink alcohol?	
Yes	148(39.0)
No	231(61.0)
Frequency of alcohol consumption	
Occassionally	42(28.3)
Regularly	5(3.4)
Daily	88(59.5)
Others	13 (8.8)
Tobacco in take by husband	
Yes	129(34.0)
No	250(66.0)
Who abused you?	**n = 147**
	freq. (%)
Husband/ ex husband	24 (16.3)
Boyfriend	30 (20.4)
Mother-in-law	15 (10.2)
Husbands siblings	64 (43.5)
Others	14 (9.6)
When abused?	
In index pregnancy	5 (3.4)
Before index pregnancy	58 (40.0)
Persistently	84 (56.6)
Does abuser drink alcohol?	
Yes	104 (70.7)
No	43 (29.3)
Does abuser take tobacco?	
Yes	98 (66.7)
No	49 (33.3)
Frequency of DV	
Rarely	26 (17.8)
Once	79(53.7)
Regularly	9 (6.1)
Daily	33 (22.4)
Spouse's perceived reason for abuse	
Financial problem	2(1.4)
Alcohol/drug induced	38 (25.8)
Cultural nurture	10 (6.8)
Personality/temperament	62 (42.2)
Disrespect for spouse	8 (5.4)
Influenced by extra marital affairs	11(7.5)
Peer influence	16 (10.9)

Table 3: Respondents history of domestic violence (Part two)

Treatment following DV	
Yes	94 (63.1)
No	53 (36.2)
Type of treatment	
Outpatient	90 (95.7)
In patient	4 (4.3)
Report of DV	
Yes	79 (53.7)
No	68 (46.3)
Action following abuse	
Report to police	2 (1.4)
Report to relative and friends	69 (46.9)
Left relationship temporarily	25 (17.0)
Left relationship permanently	3(2.0)
Did nothing	32 (21.7)
Others	16 (11.0)
Reason for nil action	
Fear of stigmatization	5 (15.6)
Fear of victimization	6 (18.7)
Lack of awareness	4 (12.5)
Lack of resources	15 (46.8)
To protect relationship	2 (6.4)
Reaction if abuse repeats	
Fight back	2(6.2)
Kill spouse	1 (3.1)
Report to law enforcement agents	2(6.2)
Report to relatives /friends	21 (65.6)
Leave relationship	4 (12.5)
Others	2 (6.4)

Table 4: Effects of domestic violence

Variables	**n = 147**
Pregnancy related complication	**freq. (%)**
Unintended pregnancy	4(2.7)
Miscarriage	83 (56.5)
Vaginal bleeding	24 (16.3)
Still birth	24 (16.3)
Others	12 (8.2)
Abortion	
Yes	26 (17.7)
No	121 (82.3)
Type of abuse suffered	
Physical injury	30 (20.5)
Depression	47 (31.9)
Anxiety	48 (32.5)
Attempted murder	15(10.4)
Sexual/ others	7 (4.7)

Table 5: Socio-demographic characteristics and domestic violence (Part one)

	Socio-demographics	**DV**		
Variables	**n=379**	**n = 147**		
Age	**freq. (%)**	**freq. (%)**	**× 2**	**p**
20-24	26 (6.8)	17 (65.4)		
25-29	130 (34.3)	46 (35.4)		
30-34	117 (30.8)	45 (38.5)	3.8	0.4
35-39	100 (26.0)	38 (38.0)		
40-44	6 (2.1)	1 (16.7)		
Marital status				
Married	286 (75.5)	108 (37.8)		
Single	40 (10.5)	16 (40.0)	0.5	0.9
Cohabiting	11 (2.9)	6 (54.5)		
Separated/divorced	42 (11.1)	17(40.5)		
Religion				
Christianity	366 (96.6)	142 (38.5)	0.5	0.8
Islam	13 (3.4)	5 (41.6)		
Occupation				
House wife	64 (16.8)	25 (39.1)		
Civil servant	60 (15.8)	24 (40.0)		
Trader/business	237 (62.4)	95 (40.1)	2.1	0.7
Professional	9 (2.5)	2 (22.2)		
Others	9 (2.5)	1 (0.7)		
Ethnic group				
Igbo	173 (46.0)	64 (36.9)		
Hausa	2 (0.5)	1 (50.0)	0.4	0.9
Yoruba	49 (13.1)	22 (44.9)		
Others	155 (40.4)	60 (38.7)		
Educational status				
None	7 (1.8)	3 (42.9)		
Primary	9 (2.0)	5 (55.6)	2.1	0.5
Secondary	193 (51.0)	83 (43.0)		
Tertiary	170 (45.2)	56 (32.9)		
Marriage type				
Monogamous	355 (94.0)	138 (38.9)	0.1	0.9
Polygamous	24 (6.0)	9 (37.5)		
Duration of relationship				
<5 years	215 (56.7)	80 (37.2)		
5-9 years	124 (32.7)	57 (45.9)	2.8	0.2
=10 years	40 (10.6)	10 (25.0)		
Spouse age				
20 – 24	2 (0.5)	1 (50.0)		
25 – 29	5 (1.3)	1 (20.0)		
30 – 34	42 (11.0)	15 (35.7)	1.8	0.7
35 – 39	169 (44.0)	68 (40.5)		
40 – 44	149(39.1)	59 (39.6)		
Others	13 (4.1)	3 (23.1)		

Table 5: Socio-demographic characteristics and domestic violence (Part two)

Educational status of spouse				
None	5 (1.3)	1 (20.0)		
Primary	2 (0.5)	1(50.0)	0.4	0.9
Secondary	109 (29.0)	41 (37.6)		
Tertiary	263 (69.2)	104 (39.5)		
Spouse occupation				
Unemployed	28 (7.4)	14 (50.0)		
Civil servant	113 (30.0)	43 (38.1)		
Business/ trader	189 (50.2)	75 (39.7)	1.72	0.7
Professional	40 (10.4)	11(27.5)		
Farmer/others	9 (2.0)	4 (44.4)		
Alcohol in-take by abuser				
Yes	148 (39.0)	104 (70.7)	42.6	<0.05
#				
No	231 (61.0)	43 (29.3)		
Tobacco in-take by abuser				
Yes	129 (34.1)	98 (66.7)	45.9	<0.05
#				
No	250 (65.9)	49 (33.3)		
Frequency of alcohol ingestion				
Occasionally	42(28.4)	38(36.5)		
Daily	88(59.5)	56(53.8)	1.9	0.4
Others	18(12.1)	10(9.7)		

Note: # = statistically significant

Table 2: Gynae/ Obstetric Profile
Women who have had 2-4 deliveries and women whose marriages were less than 5 years, constituted about 138 (36.2%) and 215 (56.7%) of respondents respectively.

Table 3: Respondents history of domestic violence
Majority 232 (61.2%) of the respondents have never been abused, while 64 (43.5%) of those abused were abused by husband's siblings. Most 231 (61.0%) respondent's husbands do not drink alcohol, while most 88 (59.5%) of those who drink alcohol, do so daily.

Table 4: Effects of domestic violence
Most 83(56.5%) pregnancy related complication resulted in miscarriages while, anxiety 48(32.5%) and depression 47(31.9%) were the predominant consequences suffered by respondents.

Table 5: Sociodemographic characteristics and domestic violence
There were statistically significant association established between alcohol and tobacco consumption and domestic violence, while younger women and women who co habits were more at risk of domestic violence.

Discussion
In this study, domestic violence (DV) was associated with several variables including socioeconomic, religious and cultural factors. However, this study identified significant association between DV, alcohol and tobacco consumption by spouse. This study identified several complications due to DV including physical, psycho social and obstetric factors.
A total 379 respondents were recruited for the study, all respondents completed and returned the questionnaires with zero attrition rate. Level of

attrition in this study was minimal compared to 5.9% attrition rate seen in similar study.[10] Researchers achieved this level of compliance due to robust adherence to study protocol and personal interaction with respondents.

About 130 (34.3%) women within the age grade 25-29 years, participated in the study with mean age 31±2 years, while 173 (46.0%) women from Igbo speaking tribe and 286 (75.5%) married women, were the predominant group. Christianity was the most common religion 366 (96.6%) of respondents.

In this study, 147 (38.8%) of respondents suffer one form of DV or another. Most worrisome is the fact that 84 (56.6%) of abuse occurs before and during index pregnancy. Other studies concur with this finding. A similar study conducted at Abakiliki, Nigeria, found prevalence of DV as 44.6% while a study in another part of southern Nigeria identified 43.5% and 28.3% of respondents abused, 12 months before pregnancy and during pregnancy.[15] However, few studies identified low prevalence of 7.8% and 17.1% respectively.[12,14] In addition some studies have recorded relatively high prevalence as much as 72.0%.[2] It is particularly not clear what could be responsible for differences in prevalence as all studies reviewed were conducted in southern part of Nigeria which share about the same socio cultural and religious background. However, it is believed that few factors such as recall bias and psychological state of respondents during survey could have influenced this disparity.

Women within the youthful age grade 20-24 years were the most (65.4%) abused, while respondents within the age grade 40-44 years were the least (16.7%) abused. Results from some studies were in congruence with the findings obtained in this study. Some studies reviewed, identified women within age grade 20-30 and less than 25 years as most abused respectively.[5,10] However, another study identified women within age grade 25-29 as most (48.9%) affected with age grade above 40 years the least.[3] These figures buttress young age and inexperience in relationship as culpable factors for DV. It is believed that, older persons who have acquired maturity could cope with the pressures arising from relationships. Also, the older the relationship, the more couples understand themselves. In this study, there was no significant association between duration of relationship and DV even when relationship ten years and above were the least (25.0%) involved in DV.

This study identified married women as least (27.8%) abused with women cohabiting as most (54.5%) abused. The finding in this study was also corroborated by other studies.[17,19] This study did not establish any significant association between marital status and DV. However, it is believed that men place more premium on married women than single women who cohabit, hence the later are more predisposed to abuse. Women in Islamic faith were more (41.6%) abused than their Christian (38.5%) counterparts. A study conducted in Lagos, Nigeria, was also in tandem with this result.[20] Furthermore, in this study and above reviewed article, there was no significant association between religion and DV, Interestingly, this study identified polygamy with higher (62.5%) rate of DV. Some studies also corroborate this result.[5,21]

Psycho social abuse including depression (31.9%) and anxiety (32.5%) were the common types of abuse suffered by respondents. Sexual abuse was the least. This finding also finds support from other studies.[2,7,8,13] However some studies identified physical abuse as most common type of abuse,[6] while findings from other studies identified physical abuse as the least form of abuse.[8] Reason for disparities in the types of abuse cannot be explicitly ascertained. Remarkably, the study identified personal traits as a major (42.2%) factor guiding reason and types of abuse. Therefore, it is the opinion of the researchers that this factor strongly dictates the type of abuse unleashed on women by their spouses.

Spouse's siblings were culpable for most of the DV suffered by respondents in this study, while intimate partner abuse was not very common. Some studies reviewed concur with this finding. A few studies support the view that family members were most perpetrators of DV before the women becomes pregnant but identifies intimate partner as most culpable during pregnancy.[5] In digression, some studies reveal husbands and intimate partners as most perpetrators of DV against their spouses.[5,13,14,22]

About 53.7% of respondents who suffer DV report these incidents. Regrettably, majority (46.9%) report to relatives and Friends, while few (1.4%) reports to law enforcement agents, with some (21.7%) not taking any action. The responses

elicited in this study were also found in some studies conducted in Port Harcourt, Nigeria.[12,13] Sadly, majority (46.8%) of respondents who suffer DV do not take any action due to lack of resources. This is understandable in view of the fact that most (62.4%) respondents are petty traders and small-scale business women. Though most (63.1%) victims of DV receive treatment following abuse, about 4.3% were hospitalized indicating severe injuries. Even as grave as this, most (65.6%) victims will continue with the relationship but report to relatives and friends, with only 6.2% reporting to the police while 12.5% will opt to leave the relationship if abuse continues. The findings in this study concur with findings in other studies in which 76% of victims of DV remain and feel safe in their relationship.[9]

This study identified alcohol and tobacco consumption as significant predictors of DV. Several studies were in concordance with this finding.[8,11,16] However, there are factors which this study identified associated with DV and includes poor educational status of respondents and spouse, unemployment, and low income. Some surveys conducted by other scholars corroborates this result.[6,7,10,12]

Conclusion / Recommendation

DV especially against women have continued to appear as a reoccurring decimal in our society despite its antisocial effects. It has been shown to have a significant association with alcohol and cigarette consumption with several other associated factors such as poor educational status of respondents and spouse, unemployment, and low income. Its effect on victims is enormous including physical, psychosocial, sexual, obstetric and gynecological complications. Regrettably, perpetrators could be close family members and intimate partners while most times, victims will not report to relevant authorities nor take any action at all. It is therefore recommended that measures including legislative intervention should be in place to discourage men from indulging in alcohol and cigarrete consumption. Also, women education and empowerment should be given serious attention by relevant authority, while perpetrators should be dealt within the extant laws of the society to forestall further abuse.

References

1. Lu MC, Lu JS, halfin VP. Domestic violence and sexual assault. In: current diagnosis and Treatment: Obstetrics and Gynecology. Decherney AH, Nathan L, Roman AS, Laufer N. eds. Mc Graw Hill. 11th Editions 2013, PP 971-977
2. Ayodapo AO, Sekoni OO, Asuzu MC. Pattern of intimate partner violence disclosure among pregnant women attending ante-natal clinic in Oyo East Local Government, Nigeria, South African Family practice, 59:2,67-71,D01:10.1080/20786190.2016.1272245
3. Onoh RC, Umeora O, Onyebuchi Aki, Lawani OL, Agwu UM. Prevalence, pattern and consequences of intimate partner violence during pregnancy at Abakaliki Southeast Nigeria. Ann Med Health Sci Res 2013; 3:484-91
4. Karen MD, Sunita K, Johnson H, Heidi S, Loraine Jet al. intimate partner violence during pregnancy: analysis of prevalence data from 19 countries. Reproductive health matters. 2010,18(36), 158-170
5. Joy O, Chris p, Shuby P. The prevalence of domestic violence among pregnant woman in Nigeria: A Systematic review. Trauma, violence & abuse 2020; 21:1, pages 3-15
6. Yohannes K, Abebe L, kisi T, Deneka IV, Feyison M, et al. the prevalence and predictors of domestic violence among pregnant women in Southeast Oromia Ethiopia. 3MC 2019;16(37)
7. Bifftu BB, Dadiew BA, Tadesse Tiruneh B, Zewoldic AZ. Domestic violence among pregnant mothers in Northwest Ethiopia: prevalence and associated factors. Adv Public Health. 2017; 2017.
8. Isaac OO, Margaret KN, Harryson EA. Intimate partner violence in pregnancy among antenatal attendees at health facilities in west Pokot country, Kenya. Pan African medical Journal 2017; 28:229
9. Anzaku SA, Shuaibu A, Dankyau M, Chima GA. Initimate partner violence and associated factors in an obstetric population in Jos, North-central Nigeria. Sahel Med J 2017; 20:49-54
10. Isaac Ogweno owaka et al. intimate partner violence in pregnancy among antenatal

attendees at health facilities in west pokot country, Kenya. Pan African Medical Journal. 2017; 28:229.
11. Shamu S, Abrahams N, Temmerman M, Musekiwa A, A systematic review of African studies on intimate partner violence against pregnant women: prevalence and risk factors. P Los ONE. 2011 March; 613): e17591.
12. Jeremiah, I, Kalio, G.B, Oriji, V.K. domestic violence in pregnancy among attendances at the University of Port Harcourt Teaching Hospital, Port Harcourt. Nigeria Journal of Medicine, 2011; 20,355-359
13. Tella O, Tobin – West O, Babatunde S. Domestic violence and risk factors among rural and urban pregnant women in Niger Delta, Nigeria. Injury prevention 2016; 22:A260
14. Adesina O, Oyugbo I, & Olubukola A. prevalence and pattern of violence in pregnancy in Ibadon, South-west Nigeria journal of Obstetrics and Gynecology 2011 31(3), 232-236
15. Olagbuji B, Ezeanochie M, Ande A and Ekop E. Trends and determinants of pregnancy – related domestic violence in a referred center in Southern Nigeria. International journal of Gynecology obstetrics 2010; 108(2):101-03
16. Fekadu E., Yigzaw G., Gelaye KA., Ayele TA., Minwuye T. et al. Prevalence of domestic violence and associated factors among pregnant women attending antenatal care services at University of Gondar Referral Hospital, Northwest Ethiopia. BMC Women's Health, 2018. 18.138
17. Joseph Umana, Olufunmilayo Fawole, Ikeola Adeoye. Prevalence and correlates of intimate partner violence towards students of the University of Ibadan, Nigeria. BMC Women health. 2014;14:131
18. $\frac{Z1-\alpha/22\ p\,(1-p)}{d2}$
19. Tanimu T, Yohanna S, Omeiza S. The pattern and correlates of intimate partner violence among women in Kano, Nigeria. African Journal of Primary health care and family medicine. 2016;8(1):e1-e6
20. Makinde O, Bjorkqvist K, Osterman K. overcrowding as a risk factor for domestic violence and antisocial behavior among adolescents in Ejigbo, Lagos, Nigeria.Global mental health. 2016;3:e16
21. Ashimi AO, Amole TG. Prevalence and predictors for domestic violence among pregnant in a rural community Northwest, Nigeria Med 2015; 56: 118-21
22. Jonathan BN, Ekenedo G. Prevalence and perpetrators of domestic violence against pregnant women in Rivers State. Ilorin. Journal of Health promotion and environmental Health Education 2016; 2(1): 124 – 44.