

Effects of domestic violence on reproductive healthcare delivery among pregnant women in Kwata rural community of Jos South

ABSTRACT

Domestic violence is a common global healthcare problem relatively hidden or an ignored form of violence against pregnant women accounting for over 736 million women subjected to physical or sexual intimate partner violence, non-partner sexual violence, or both at least once in their lifetime. In pregnant women, the magnitude of domestic violence is higher in resource limited settings as compared with the developed countries which affects the physical and mental health of the mothers and their offspring. This study aimed to evaluate the factors and effects of domestic violence on women reproductive healthcare in Kwata community of Jos south, Plateau state. 200 women were conveniently sampled at random, structured questionnaires administered with 100% retrieval rate and data analyzed using descriptive statistical measures. Majority (97.5%) of the respondents indicated that alcoholism, drug abuse and gambling are major factors of domestic violence and 90% of it affects their behaviour towards their wives and children. 75% said that domestic violence can lead to health problems resulting to emotional hurt, 80% physically hurt while 55% reported that their partners insist on having sex as a result 45% said that they have ever been forced to engage in sexual activity against their will and 60% affirmed that sex could resort to violence whenever one resisted. Violence between intimate partners during pregnancy leading to the death of both the mother and child is indicated high with average mean value of 4.24. High tendencies of domestic sexual violence were associated with psychiatric problems, vagina damage (or obstetric fistula), transmitted infections and female genital mutilation with average mean values of 4.35, 4.13 and 3.7 respectively. Growing evidence of domestic violence against women are strong links of significant physical and mental health impairments, and risky health behaviour are increasing more severely thereby affecting women reproductive health and accessing healthcare will be obstructed resulting in attendant effects. Thus, addressing these factors and the attendant effects will go a long way to curb the menace thereof through cultural reorientation, enforcement of government policies, women, and girl's empowerment, reaching out to men and coordinating institutional and individual responses.

Keywords: Domestic violence, Effects of alcoholism, Physical and Mental health, Sexual violence, Reproductive healthcare, and Pregnant women.

1. INTRODUCTION

Violence against women is associated with immediate and long term adverse health outcomes for women and their children with more emotional distress and suicidal thought than nonviolence partners and two in three victims of such partners had family-related homicide putting her at risk for sexually transmitted diseases and unwanted pregnancy leading to poor attendance to antenatal, postnatal care, increase risk of pre-term birth and intensive admission of newborn [1,2,3].

In Nigeria, reports from the national population commission estimated women's lifetime exposure to intimate partner violence from their current husband or partner stands at 19% for emotional, 14% (physical), and 5% for sexual violence. In relation to the aforementioned, previous studies shown that the country's prevalence rate of intimate partner violence ranges from 31 – 61% (Psychological/emotional violence), 20 – 30% (sexual violence), and 7 – 31% (Physical violence) [4,5]. Further studies conducted in other different regions of Nigeria reported prevalence of intimate partner violence ranging from 42% in the North [6], 78.8% in the South-east [7], and 41% from the South-south [8]. However, researchers have proposed different theories and frameworks to explain and understand violence against women as to guide the design of effective prevention and intervention strategies. Yet, scholars argued that violence against women is an expansion of patriarchal domination of women by men rooted in gender and power inequality [3, 9]. In Plateau state, domestic abuse, sexual assault accounted for most reported incidence of violence against women and the girl child between 2014 – 2016 as reported by the Fund for Peace, [10].

Forms of domestic violence may include physical, sexual, economic control, psychological assault, or emotional abuse and other forms are childhood marriage, female child labour, female circumcision, negative cultural attitude, law enforcement agency violence, denial of female education, degrading traditional practices discrimination in employment etcetera [11, 12]. The multi-country study on women's reproductive health and domestic violence consisting of population-based surveys conducted in various countries using the same methods and definitions found that the prevalence of physical intimate violence in pregnancy ranges from 1% in Japan to 28% in Peru province with majority of sites ranging between 4% - 12%, 32% in Egypt, 28% in India, 21% in Saudi Arabia and 11% in Mexico [13, 14]. In 2010, findings from demographic analysis, health surveys and international violence against women survey found that the prevalence rate for intimate partner violence during pregnancy was between 2% in Australia, Denmark, Cambodia, and Philippines to 13 - 15% in Uganda with majority ranging from 4% and 9% [15]. More so, recent reviews in clinical studies from Africa reports prevalence of 23 – 40% for physical violence, 3 – 27% for sexual violence and 25 – 49% for emotional violence during pregnancy [16, 17].

Factors responsible for domestic violence

The distress women experienced during pregnancy can be overwhelming by domestic violence with more significant effects on their wellbeing and these abuses often limit the ability of women to manage their reproductive health [18, 19].

Studies conducted regarding the underlying factors for sexual violence in India and other developing countries reported that some cultures approved violence, harmful gender norms and traditions, social acceptance of violence as means of conflict resolution where most husbands have control of finances and believed that they have a right to abuse women if they do something which made their husbands angry [20, 21 - 27]. The study also found out that major cause of domestic violence has been attributed to unequal balance of power in the man-woman relationship. In these studies, there is no conclusive evidence in relation to education of men and women where even educated women suffered violence. McCarthy *et al.*, [23] reported that dowry, desire for male child and alcoholism of the spouse has been one of the major factors of domestic violence against women. In another study conducted by Chhabra [28], women were surveyed on why they were violated, 11% said it was poverty, 19% dowry, 19% infertility while others said alcoholism. The study found out that adolescent

girls were uniquely vulnerable during pregnancy as to 48% reported physical assault, and 43% had to be taken to the health facility for bruises, cuts, burns or fissures and by 2015, it was reported that 31% were sexually violated during pregnancy out of their wish affecting their physical and mental wellbeing.

Female genital mutilation also known as “female genital cutting” or “female circumcision” is a culturally supported form of gender-based violence prevalent in over 30 countries in Africa, the Middle East and Asia where a variety of procedures involving the partial or complete removal of the external female genitalia for cultural, traditional or other non-therapeutic reasons are practiced [29, 30]. The world health organization reported that more than 200 million girls and women alive today have undergone the procedure with over 3 million girls at risk of female genital mutilation yearly [31].

Effects of domestic violence on women reproductive health during pregnancy

In years past, increasing attention has been given on the effects of male partner violence on women’s physical and mental health with studies revealing significant association between lifetime experiences of partner violence, sexual violence, or both by male intimate partner and a wide range of self-reported physical and mental health problems in women [3, 32]. In the same way, epidemiological and clinical studies shown that physical and sexual violence acts by intimate partners were consistently associated with gynaecological disorders, adverse pregnancy outcomes, irritable bowel syndrome, gastrointestinal disorders, and chronic pain [33, 34]. As compared, many reported that abused women have more physical symptoms of poor health and more days in bed than those with no abused during pregnancy [35 - 38].

Statement of the problem

Many women experience domestic violence and abuse during the time of pregnancy more commonly than pre-eclampsia and placenta previa yet received less attention in perinatal care setting just because of their sex and their unequal status in the society. Women who have experienced physical, sexual, or psychological violence suffer a range of health problem often in silence. However, domestic violence occurs in all countries, rich or poor, developed or developing with no regards to caste, creed, colour, wealth, urban or rural residence, or the ages of victims and aggressors. It is a leading prevalent contributor to death, disability, and significant economic burden [25, 39 – 45].

2. MATERIAL AND METHODS

The research is a non-experimental, descriptive cross-sectional design conducted among pregnant women in Kwata community of Jos south Local Government Area with the aimed to assess the challenges of domestic violence and its effects on reproductive health care between the ages of 15 – 49 years old between the months of September – December 2020. The selection of respondents was done through the non-probability convenient sampling technique with adoption of the Taro Yamane formula for determination of sample size as stated: $n = \frac{N}{1 + N(e)^2}$

n= sample size

N= population size

1= constant

e= level of significant error (0.05)

$n = \frac{400}{1 + 400(0.05)^2}$

$n = \frac{400}{1 + 400 \times 0.0025}$

$n = \frac{400}{1 + 1} = 200$

n= 200

Thereafter, 200 interviewer structured questionnaire administered to the respondents which was divided into four sections A-D (sections A- Demographic data, B-Forms of domestic violence, C-Factors responsible for domestic violence, and D-Effects of domestic violence). The questionnaire retrieval was 100% and data analyzed using descriptive statistic and

results presented in contingency tables expressed in percentages and modified Likert scale with significant mean values.

3. RESULTS AND DISCUSSION

Sociodemographic data

Fifty percent of the respondents are between the ages of 40 – 49 years, ages 30 – 39 years with thirty percent, ages 20 – 29 had ten percent followed by five percent each of ages 15 – 19 and 50 years above. Sixty-five percent of the respondents are married with twenty-five percent of them are housewives. Based on their occupation, seventy percent were engaged as civil servants and petty trader with over ninety percent of the respondents are literates (table 1).

Forms of Domestic Violence experienced by respondents

In table 2, it was gathered that a remarkable proportion (77.5%) of the respondent women in the study area had experienced various form of domestic violence ranging from physical abuse such as kicks, slaps, blows etcetera to emotional and psychological abuse where they were made to feel less important and hurt verbally. In most cases 90% of the respondents aged 20 – 49 years have been subjected to some forms of violence this concur with the WHO, 2023 report that most of this violence is intimate partner violence among women aged 15 – 49 years who have been in relationship and subjected to some form of physical or sexual violence by their partners [31]. 55% of the respondents reported that their partners insist on having sex as a result 45% agreed that they have ever been forced to engage in sexual activity against their will leading to 60% violence whenever one resisted sex.

Factors of domestic violence among pregnant women in the Study Area

Based on the factors responsible for domestic violence in our study as seen in table 3, it was revealed that higher incident (97.5%) of alcoholism, drug abuse, gambling, over dependent on the spouse/husband (95%), early marriage and upsetting sexual experiences in one's lifetime are factors responsible for domestic violence in which most (98%) men take to violence to assert their authority as the head of the family among others. Our finding was similar to studies conducted in Australia and Nepalese women where Mayshak et al., [45] and Bhatta et al., [27] reported that alcohol-related domestic violence is twice more likely to involve physical violence including life-threatening injuries. Again, according to Galbicsek, [46], reported that in the USA, 40% of domestic violence has alcohol factor present during the time of the offense and in Nepal, the study conducted by Babcock, [47] found that women who economically dependent on their spouse have higher risk of domestic violence. More so, our study agreed with other studies conducted around the world were prevalence of physical intimate violence in pregnancy ranges from 1% - 28%, sexual violence (3 – 27%) and emotional violence (25 – 49%) [13].

Effects of domestic violence among pregnant women on their reproductive health outcome

It was gathered that poor attendance to ante-natal and post-natal care, the risk of having low birth weight infants, pre-term birth and intensive care admission of the newborn, abuse of pregnant women leading to unsafe abortions, miscarriages and stillbirth, high risk of extra marital sex resulting in unintended pregnancies and sometimes the death of both mother and child. More so, psychiatric disorders, damage to vagina, transmission of sexually infected diseases, chronic pains, sexual dysfunction and obstetric fistula resulting to prolonged and obstructed labour were recognized as effects of domestic violence on reproductive health. Our study was in agreement with that of Gilbert et al., [34], Alhusen et al., [43] and Campbell et al., [37] who reported that domestic violence was consistently

associated with gynaecological disorders, adverse pregnancy outcomes, irritable bowel syndrome, gastrointestinal disorders with more physical symptoms of poor health. Violence between intimate partners during pregnancy leading to the death of both the mother and child is indicated high with average mean value of 4.24. Tendencies of domestic and sexual violence can be associated with psychiatric problems, vagina damage (causing vagina or obstetric fistula), transmitted infections and female genital mutilation with average mean values of 4.35, 4.13 and 3.7 respectively (table 4).

Table 1. Demographic data of respondents

Variables	Frequency	Percentages (%)
Age group		
15 – 19	10	5
20 – 29	20	10
30 – 39	60	30
40 – 49	100	50
50 >	10	5
Marital status		
Single	70	35
Married	130	65
Divorced	0	0
Level of Education		
Primary	0	0
Secondary	20	10
Tertiary	180	90
Occupation		
Civil servants	80	40
Business or Petty trading	60	30
Students	10	5
Housewife	50	25

Table 2. Forms of Domestic Violence experienced by respondents.

Question variables	Yes (%)	No (%)
Have you ever heard of domestic violence	190 (95)	10 (5)
Do you know that it can lead to other health problems	185 (93)	15 (7)
Do you and your partner tend to fight a lot	110 (55)	90 (45)
Have you ever been hurt emotionally	150 (75)	50 (25)
Are you currently of have you been in a relationship where you were physically hurt, threatened, or made to feel afraid	160 (80)	40 (20)
Does your partner insist on having sex when you do not	110 (55)	90 (45)
Does he resort to violence when you resist	120 (60)	80 (40)
Have you ever been raped or forced to engage in sexual act against your will	90 (45)	110 (55)

Table 3. Factors Responsible for Domestic Violence in the Study Area

Question Variables	Yes (%)	No (%)
Does your husband indulge in alcoholism, drugs, or gambling	195 (97.5)	5 (2.5)
Does it affect his behaviour towards you and the children	200 (100)	0 (0)
Do you thin being over dependent on your spouse can cause domestic violence	199 (99.5)	1 (0.5)

Do you thin some men take to violence in order to assert their authority as the head of the family	196 (98)	4 (2)
Have you ever had any upsetting sexual experiences as a child	194 (97)	6 (3)
Do you think early marriage can be linked to domestic violence	200 (100)	0 (0)

Table 4: Effects of Domestic Violence in the Study Area

Question Variables	SA	A	SD	D	U	Mean	Remark
Domestic violence during pregnancy could be responsible	180	-	20	-	-	4.7	Agreed
The risk of having low birth weight infants, pre-term birth and intensive care admission of the newborn can be as a result of domestic violence during pregnancy	150	-	-	20	30	4.1	Agreed
Abuse of pregnant women can lead to unsafe abortion, miscarriage and stillbirth	90	100	-	10	-	4.4	Agreed
Women that experience domestic violence are more likely to go into high risk extra marital sex which could result in unintended pregnancies	50	100	50	-	-	4.0	Agreed
Violence between intimate partner during pregnancy lead to the death of both mother and child	140	-	-	40	20	40	Agreed
Domestic and sexual violence can be associated with psychiatric problem such as:							
- Anxiety and phobia	150	-	-	50	-	4.3	Agreed
- Post-traumatic stress	90	100	-	-	10	4.3	Agreed
- Alcohol	170	10	-	20	-	4.7	Agreed
- Suicidal tendencies	80	90	-	30	-	4.1	Agreed
Sexual abuse especially forced sex can cause damage to the:							
- Vagina	140	30	20	10	-	4.5	Agreed
- Anus	50	90	60	-	-	3.9	Agreed
- Transmitted infections including HIV/AIDS	80	50	10	20	10	4.0	Agreed
Early childbearing because of early or forced marriage can result in a range of health problem such as risk for obstetric fistula resulting from prolonged and obstructed labour	200	-	-	-	-	5.0	Agreed
Female genital mutilation is associated with a range of serious health problems as:							
- Infections	110	-	80	-	10	3.0	Agreed
- Chronic pain	130	30	-	40	-	4.3	Agreed
- Sexual dysfunction	120	10	10	-	60	3.7	Agreed

4. CONCLUSION

Growing evidence of domestic violence against women and girls are strong links of significant physical and mental health impairment, and risky health behaviour are increasing more, and more severely with significant health impacts thereby affecting women reproductive health and accessing healthcare will be hampered, obstructed, and discouraged resulting in attendant effects. It is quite a phenomenon that domestic violence results in fatalities and highly condemnable act as it is capable of hampering procreation, thus, addressing these factors and the attendant effects will go a long way to curb the menace thereof through cultural reorientation, enforcement of government policies, women, and girl's empowerment, reaching out to men and coordinating institutional and individual responses.

CONSENT

All participating women consented to take part in this research and provide us with the necessary information needed.

ETHICAL APPROVAL

Approval was sought for and obtained from the Gwom rei of Kwata Zawan while due process by introducing research interviewer assistant before proceeding to meet the respondents. They were followed, research protocol and procedures discussed, and confidentiality assured.

REFERENCES

- 1) Adeyemo, O. O., & Bamidele, I. (2016). The Menace of Domestic Violence: Improving the Lives of Women in Nigeria. *African Journal of Legal Studies*, 9(3), 177-198. <https://doi.org/10.1163/17087384-12340007>
- 2) WHO, 2013, Responding to intimate partner violence and sexual violence against women. VA:World Health Organization on clinical and policy guidelines. WHO Geneva.
- 3) Banebo FO, Schumann B, Vaezghasemi M (2018) Intimate partner violence against women in Nigeria: A multilevel study investigating the effect of women's status and community norms *BMC Womens Health* 2018,18, 136. <https://doi.org/10.1186/s12905-018-0628-7>
- 4) Folayan, M.O., Oloniniyi, I.O., Nwakamma, I. *et al.* Associations between sexual identity, living with disability, bully victimisation, and HIV status and intimate partner violence among residents in Nigeria. *BMC Public Health* 22, 1756 (2022). <https://doi.org/10.1186/s12889-022-14186-6>
- 5) Makanjuola et al., 2013
- 6) Tanimu et al., 2016
- 7) Okemgbo CN, Omideyi AK, Odimegwu CO. (2002) Prevalence, patterns and correlates of domestic violence in selected Igbo communities of Imo state, *Nig Afr J reprod Health.* 6(2):101-114. <https://www.jstor.org/stable/3583136?origin=crossref>
- 8) Dienye P, Gbeneol P, Itimi K (2014) Intimate partner violence and associated coping strategies among women in a primary care clinic in Port Harcourt, *Nig J. Fam Med Prim Care* 3(3):193-198 <http://www.ncbi.nlm.nih.gov/pubmed/25374852>
- 9) Lawson, 2012
- 10) Fund for Peace, (2016) Impacts of Conflict, Violence on Women and Girls in Plateau: Inter-Communal Violence in Plateau State-Impacts on Women and Girls
- 11) World Bank (2019) Gender-Based Violence an Analysis of the Implications for the Nigeria For Women Project. www.worldbank.org
- 12) Campbell, K. A., Vargas-Whale, R., & Olson, L. M. (2021). Health and Health Needs of Children of Women Seeking Services for and Safety From Intimate Partner Violence. *Journal of interpersonal violence*, 36(3-4), NP1193–1204NP. <https://doi.org/10.1177/0886260518754871>
- 13) Mojahed, A., Alaidarous, N., Kopp, M., Pogarell, A., Thiel, F., & Garthus-Niegel, S. (2021). Prevalence of Intimate Partner Violence Among Intimate Partners During the Perinatal Period: A Narrative Literature Review. *Frontiers in psychiatry*, 12, 601236. <https://doi.org/10.3389/fpsy.2021.601236>

- 14) García-Moreno C, Jansen H, Ellsberg M, Heise L, Watts C. WHO multi-country study on women's health and domestic violence against women: initial results on prevalence, health outcomes and women's responses [Internet]. Geneva: WHO Press, World Health Organization; 2005 [cited 21 Feb 2017]. p. 206. Available from: http://whqlibdoc.who.int/publications/2005/924159358X_eng.pdf
- 15) Karen M Devries, Sunita Kishor, Holly Johnson, Heidi Stöckl, Loraine J Bacchus, Claudia Garcia-Moreno & Charlotte Watts (2010) Intimate partner violence during pregnancy: analysis of prevalence data from 19 countries, *Reproductive Health Matters*, 18:36, 158-170. DOI: [10.1016/S0968-8080\(10\)36533-5](https://doi.org/10.1016/S0968-8080(10)36533-5)
- 16) Ahinkorah, B. O., Aboagye, R. G., Seidu, A. A., Boadu Frimpong, J., Hagan, J. E., Jr, Budu, E., & Yaya, S. (2023). Physical violence during pregnancy in sub-Saharan Africa: why it matters and who are most susceptible?. *BMJ open*, 13(6), e059236. <https://doi.org/10.1136/bmjopen-2021-059236>
- 17) Sahmu S et al., (2011) A systematic review of African studies on intimate partner violence against pregnant women: prevalence and risk factors. *PLoS One*, 2011, 6(3):e17591
- 18) Amel Barez, M., Babazadeh, R., Latifnejad Roudsari, R. et al. Women's strategies for managing domestic violence during pregnancy: a qualitative study in Iran. *Reprod Health* 19, 58 (2022). <https://doi.org/10.1186/s12978-021-01276-8>
- 19) Rennison Callie Marie and Sarah Welchans (2013) Intimate partner violence 1993-2004. US department of Justice Bureau of Justice Statistics Washington, DC.
- 20) Perrin, N., Marsh, M., Clough, A. et al. Social norms and beliefs about gender based violence scale: a measure for use with gender based violence prevention programs in low-resource and humanitarian settings. *Confl Health* 13, 6 (2019). <https://doi.org/10.1186/s13031-019-0189-x>
- 21) Sinha, P., Gupta, U., Singh, J., & Srivastava, A. (2017). Structural Violence on Women: An Impediment to Women Empowerment. *Indian journal of community medicine : official publication of Indian Association of Preventive & Social Medicine*, 42(3), 134–137. https://doi.org/10.4103/ijcm.IJCM_276_15
- 22) Kalra, G., & Bhugra, D. (2013). Sexual violence against women: Understanding cross-cultural intersections. *Indian journal of psychiatry*, 55(3), 244–249. <https://doi.org/10.4103/0019-5545.117139>
- 23) McCarthy, K. J., Mehta, R., & Haberland, N. A. (2018). Gender, power, and violence: A systematic review of measures and their association with male perpetration of IPV. *PloS one*, 13(11), e0207091. <https://doi.org/10.1371/journal.pone.0207091>
- 24) Christaki, C., Orovou, O., Dagla, D., Sarantaki, S., Moriati, M., Kirkou, K., & Antoniou, A. (2023). Domestic Violence During Women's Life in Developing Countries. *Materia socio-medica*, 35(1), 58–64. <https://doi.org/10.5455/msm.2023.35.58-64>
- 25) Erten, B., & Keskin, P. (2018). For Better or for Worse?: Education and the Prevalence of Domestic Violence in Turkey. *American Economic Journal: Applied Economics*, 10(1), 64–105. <https://www.jstor.org/stable/26528370>
- 26) Weitzman A. (2018). Does Increasing Women's Education Reduce Their Risk of Intimate Partner Violence? Evidence from an Education Policy Reform. *Criminology: an interdisciplinary journal*, 56(3), 574–607. <https://doi.org/10.1111/1745-9125.12181>
- 27) Bhatta, N., Assanangkornchai, S. & Rajbhandari, I. (2021) Does husband's alcohol consumption increase the risk of domestic violence during the pregnancy and

- postpartum periods in Nepalese women?. *BMC Public Health* 21, 5 (2021). <https://doi.org/10.1186/s12889-020-10021-y>
- 28) Chhabra S (2014) Sexual violence among married women burden and action taken: journal of Basic and clinical reproductive sciences. 3:101-104
 - 29) Odukogbe, A. A., Afolabi, B. B., Bello, O. O., & Adeyanju, A. S. (2017). Female genital mutilation/cutting in Africa. *Translational andrology and urology*, 6(2), 138–148. <https://doi.org/10.21037/tau.2016.12.01>
 - 30) Ndoye, M., Gueye, S., Niang, L., Cassim, F., Adlam, J. (2023). Female Genital Mutilation/Cutting. In: Martins, F.E., Holm, H.V., Sandhu, J., McCammon, K.A. (eds) Female Genitourinary and Pelvic Floor Reconstruction. Springer, Cham. https://doi.org/10.1007/978-3-030-71112-2_63-1
 - 31) WHO, 2023 <https://www.unwomen.org/en/what-we-do/ending-violence-against-women/facts-and-figures>
 - 32) Tesfaw, L.M., Muluneh, E.K. (2022) Assessing the prevalence and association between physical, emotional, and sexual of intimate partner violence against women in Nigeria. *Reprod Health* 19, 146. <https://doi.org/10.1186/s12978-022-01431-9>
 - 33) Nadine Wathen (2012) Health Impacts of Violent Victimization on Women and their Children Cat. No. J2-377/2013E-PDF
 - 34) Gilbert, L. K., Zhang, X., Basile, K. C., Breiding, M., & Kresnow, M. J. (2023). Intimate Partner Violence and Health Conditions Among U.S. Adults-National Intimate Partner Violence Survey, 2010-2012. *Journal of interpersonal violence*, 38(1-2), NP237–NP261. <https://doi.org/10.1177/08862605221080147>
 - 35) Stone, R. (2015) Pregnant women and substance use: fear, stigma, and barriers to care. *Health Justice* 3, 2. <https://doi.org/10.1186/s40352-015-0015-5>
 - 36) Tavoli, Z., Tavoli, A., Amirpour, R. *et al.* Quality of life in women who were exposed to domestic violence during pregnancy. *BMC Pregnancy Childbirth* 16, 19 (2016). <https://doi.org/10.1186/s12884-016-0810-6>
 - 37) Campbell K.A, Vargas-Whale R and Olson L.M (2021) Health and Health Needs of children of women seeking services for and safety from intimate partner violence. *Journal of Interpersonal violence*, 36(3-4), NP119-1204NP. <https://doi.org/10.1177/0886260518754871>
 - 38) Denkinger Jana K., Windthorst Petra, Rometsch-Ogioun El Sount Caroline, Blume Michael, Sedik Hes, Kizilhan Jan I., *et al.*, (2018) Secondary Traumatization in Caregivers Working with Women and Children Who Suffered Extreme Violence by the “Islamic State” *Frontiers in Psychiatry* Vol. 9: 2018 <https://www.frontiersin.org/articles/10.3389/fpsy.2018.00234>
DOI:10.3389/fpsy.2018.00234
 - 39) Lin C-H, Lin W-S, Chang H-Y, Wu S-I (2022) Domestic violence against pregnant women is a potential risk factor for low birthweight in fullterm neonates: A population-based retrospective cohort study. *PLoS ONE* 17(12): e0279469. <https://doi.org/10.1371/journal.pone.0279469>
 - 40) Dickson, K.S., Boateng, E.N.K., Adzrago, D. *et al.* (2023) Silent suffering: unveiling factors associated with women’s inability to seek help for intimate partner violence in sub-Saharan Africa (SSA). *Reprod Health* 20, 110 <https://doi.org/10.1186/s12978-023-01651-7>
 - 41) Arisukwu, O., Igbalekwu, C., Adebisi, T., & Akindele, F. (2021). Perception of domestic violence among rural women in Kuje. *Heliyon*, 7(2), e06303. <https://doi.org/10.1016/j.heliyon.2021.e06303>
 - 42) Nabaggala, M.S., Reddy, T. & Manda, S. (2021) Effects of rural–urban residence and education on intimate partner violence among women in Sub-Saharan Africa: a

meta-analysis of health survey data. *BMC Women's Health* 21, 149. <https://doi.org/10.1186/s12905-021-01286-5>

- 43) Alhusen, J. L., Ray, E., Sharps, P., & Bullock, L. (2015). Intimate partner violence during pregnancy: maternal and neonatal outcomes. *Journal of women's health* (2002), 24(1), 100–106. <https://doi.org/10.1089/jwh.2014.4872>
- 44) Sapkota D, Bhattarai S, Baral D, Pokharel PK. (2016) Domestic violence and its associated factors among married women of a village development committee of rural Nepal. *BMC Res Notes*. 2016;9:178
- 45) Mayshak R., Curtis A., Coomber K., Tonner L., Walker A., Hyder S. *et al.*, (2020). Alcohol-involved family and domestic violence reported to police in Australia. *J. Interpers. Violence* 886260520928633. 10.1177/0886260520928633
- 46) Galbicsek C. (2020). *Alcohol-Related Crimes*. Available online at: <https://www.alcoholrehabguide.org/alcohol/crimes/> (accessed October 13, 2023)
- 47) Babcock RL, Deprince AP. (2013) Factors contributing to ongoing intimate partner abuse: childhood betrayal trauma and dependence on one's perpetrator. *J Interpers Violence*. 2013;28(7):1385–402.

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