

## Domestic Violence and Pregnancy Outcome

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### ABSTRACT

**Aim:** To determine the association of domestic violence with the adverse pregnancy outcome.

**Study design:** Cohort Study

**Place and duration:** Mother and Child health Unit II PIMS Islamabad from 25<sup>th</sup> April 2014 to 24<sup>th</sup> April 2015.

**Methodology:** All low risk women presenting at MCH Outpatient antenatal booking Clinic, subsequently delivered at MCH Centre PIMS, were recruited after obtaining the written informed consent. Pregnancy outcome such as miscarriage and still birth was noted. Women recruited into study were followed till delivery. Total of 108 were recruited. Two groups were made i.e. women with physical violence (group A) and women with no violence (group B)(54 Pts in each group)

**Results:** Mean age was 24.3±5.8 in group A and 24.8 ±5.2 in group B. Intrauterine fetal death in group with violence occurred in 2 cases ( 3.7%) and in group without violence in 1 case(1.9%).The difference was not statistically significant (P 0.558). In group (A) pregnancy loss at < 24 weeks occurred in 3 women (5.6%) and in 1 woman (1.9 %) in group (B). The difference again was not statistically significant (P 0.308)

**Conclusion:** Adverse pregnancy outcomes were not found to be associated with domestic violence

**Keywords:** Domestic violence, pregnancy, adverse pregnancy outcome, miscarriage, still birth, domestic abuse

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### INTRODUCTION

Internationally the extent of domestic violence faced by women is a serious health concern<sup>(1)</sup>. Intimate partner violence (IPV) should especially be of concern during pregnancy where two lives are at risk. It ranges from a single hit to emotional humiliation, physical injuries and emotional disgrace. It is assessed that every year 1.5 – 4.0 million women in US fall victims to this<sup>2</sup>. Pregnant women constitute a specific vulnerable subgroup with prevalence rate of IPV during gestation ranging between 4% and 29% (3). World health organization (W.H.O) defines domestic violence as physical, emotional or sexual violence or threat for violence that is imposed on a woman by any member of her family, parents, marital / cohabitating companion, brothers or any of well-known family member. When such type of violence takes place at home<sup>4</sup>

It is observed that women from almost all social and economic classes face domestic violence. But women from low socioeconomic class experience it more<sup>(5)</sup> Domestic violence during pregnancy can have negative impact on mother and her unborn fetus. These effects can be placental damage, spontaneous abortion, uterine rupture, APH, injury to fetus, preterm birth, low birth weight and death<sup>(1)</sup> According to a research conducted by Nigerian demographic health survey (N.D.H.S) in 2013, violence was experienced by 5% of pregnant women it was influenced by their employment, marital status and education<sup>(6)</sup>. During pregnancy, the violence faced by the women can increased the risk of homicide and suicide<sup>(7)</sup>. A study done among Vietnam women showing miscarriage

Still birth 10% with no violence and 9.1% with violence<sup>3</sup>. Violence faced by a pregnant woman has also a link with her psychosocial problems such as anxiety, stress and in particular postpartum depression<sup>8</sup>. In context of reproductive pressure women not able to purchase contraceptives including condom, may face unwanted pregnancy<sup>9</sup>. Data about abuse against women from developing countries like Pakistan is highly prevalent problem affecting the healthiness of adolescents and women<sup>10</sup>. The violence faced by the women during pregnancy and its effect on outcome is the rationale of our study. There is deficiency of prospective studies on the subject in our country. Therefore, we decided to determine the adverse pregnancy outcome in one group with violence and another group without violence.

### METHODOLOGY

The cohort study was conducted in mother and child health unit II, PIMS Islamabad during the period of twelve months 25<sup>th</sup> April 2014 to 24<sup>th</sup> April 2015. Non-probability sampling was employed to select 108 patients. These patients were divided in to two groups. Comprising of 54 patients in each group. All low risk women presenting at MCH outpatient antenatal booking clinic, subsequently delivered at MCH Centre. All the patients were recruited after obtaining the written informed consent. The survey was confidential and conducted in privacy. Pregnant women unwilling to give consent who had history of chronic hyper tension, diabetes, renal disease, vascular and connective tissue disorder were excluded.

Women asked whether she had been physically hurt in current pregnancy by her partner or x-partner or other family members. If the answer was yes then they were

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asked questions related to physical violence such as threats,slaps,punch,kicking, burns and permanent injury. They were requested to disclose who is the perpetrator husband or the other family members. History was taken regarding risk factors for violence in husband like aggressive nature addiction,unemployment,low income and another woman. All women recruited in to study were followed till delivery. Pregnancy outcome such as fetal death (intrauterine fetal death greater than 24 weeks of gestation) and miscarriage (loss of pregnancy before the age of viability less than 24 weeks) were noted.

**Data analysis:** Data was entered on predesigned Performa. Analysis of data was done by using 10<sup>th</sup> version of SPSS.Descriptive statistics were calculated. Mean ± S.D was calculated for quantitative variable like age for both partners. Frequency and percentages were calculated for gestational age, education and occupation of both partners. Frequency and percentages were calculated risk factor for violence in husband (aggressive nature, addiction, unemployment, monthly income and another women), Type of violence (threats, slaps, punch, kicking, burns). association of domestic violence with intrauterine fetal death greater than 24 weeks of gestation and association of domestic violence with pregnancy loss before the age of viability less than 24 weeks of gestation.

**RESULTS**

A total of 108 patients (54 in each group) were included in this study during the study period of twelve months. Group Awomen with domestic violence and group B women without domestic violence. The demographic features of both groups were similar. The mean age of wife 25 years and mean age of husband 29 years in both groups respectively.

The demographic feature of both groups were same.Majority of the Pregnant women were between 20 to 30 years of age in both groups. Mean age of women was 24 years in both groups.Regarding gestational age 18 women (33.3%) in group A and 8 women (14.8%) in group B were more than 24 weeks gestation. While 36 women (66.7%) in group A and 46 women (85.2%) in group B had less than 24 weeks' gestation.When comparison was made between two groups for educational status of wife, majority of wives were uneducated. 29(53.7%) in group A and 34(62.96%) in group B. Occupation of women shows 38(70.4%) in group A and 44(81.5%) in group B were housewife. Working women were 16(29.6%) in group A and 10(18.51%) in group B (Table 1). Regarding the educational status of husband, majority of them were

uneducated. 38(70.4%) in group A and 32(59.3%) were uneducated in group B. Majority of husbands were employed 30(55.6%) in group A and 29(53.7%) in group B (Table 2). Risk factors in husband are as follows; Aggressive nature 13(12%), addiction 7(6.4%), unemployment 49(45.3%) and other women 4(3.7%). Unemployment and aggressive nature were major risk factors of husband.Table 3.Type of Physical Violence were as follows; slapping 50(92.6%), pushing 8(14.8%), punching/kicking 14(25.9%) and burns 1(1.9%). Table 4Intrauterine fetal death in group A occurred in 2 cases (3.7%) and in group B 1(1.4%).Difference between two groups were statistically non-significant (P 0.558). Pregnancy loss at <24 weeks developed in 3 women (5.6%) and in group B n=1 (1.9%). Difference between two groups wasnon-significant (P0.308) Table 5.

Table:1 Characteristics of Pregnant Women

Mean + SD Age (years)	Group A (with violence) 24.3±5.8		Group B (without Violence) 24.9±5.2	
	No	%	No	%
Gestational Age				
More than 24 weeks	18	33.3	8	14.8
Less than 24 weeks	36	66.1	46	85.2
Educated	25	46.3	20	37
Uneducated	29	53.7	34	62.96
House Wife	38	70.4	44	81.5
Working	16	29.62	10	18.51

Table:2 Characteristics of Husband n=54 in each group

Age (Years) Mean + SD	Group A (with violence) 24.3±5.8		Group B (without Violence) 24.9±5.2	
	No	%	No	%
Educated	16	29.629	22	40.7
Uneducated	38	70.4	32	59.3
Employed	30	55.6	29	53.7
Unemployed	24	44.4	25	46.3

Table 3: Risk factors for husband

Risk factor	Number	Percentage%
Aggressive	13	12
Addiction	07	6
Unemployment	49	45.6
Other woman	04	3.7

Table 4: Type of Physical violence

Type of violence	Number	Percentage%
Slapping	50	92.2
Pushing	08	14.8
Punch/kick	14	25.9
Burns	01	1.9

Table 5: Association of Pregnancy with intrauterine fetal death and miscarriage

Status		Group A (with violence)N=54	Group B (without violence)N=54	P value
Intrauterine fetal death	Yes	02	3.7	0.558
	No	52	96.3	
Pregnancy Loss at 24 week	Yes	03	5.6	0.308
	No	51	94.4	

## DISCUSSION

Domestic Violence faced by women is a worldwide health problem and is of utmost importance for reproductive age group population. Most of the studies regarding its impact on pregnancy outcome are not conclusive, such as for abortions, small for gestational age and postpartum depression. In most of the studies the sample size of high risk women was small. According to Department of health of United Kingdom, violence is a range of behavior from verbal abuse to threats and bullying, physical and sexual assault to rape and even murders. According to statistics from United Kingdom, between 2.5% and 3.4% of women face abusive behavior of their partner during pregnancy. While according to statistics from United States, the frequency of domestic violence is between 5.2% and 3.7% in pregnant women with highest rate during postpartum period among teenagers. Studies suggested that a large proportion of women, as high as of 20% are expired during pregnancy due to violence and were at an increased risk of complications during pregnancy resulting in adverse pregnancy outcomes. There were very few studies which scrutinized the effects of intimate partner violence on infant and child mortality as long term consequences on pregnancy outcomes. Studies have showed that domestic violence does not stop during pregnancy and may be even aggravated or initiated. The adverse consequences of violence during pregnancy on birth outcomes have been well documented. Lipsky et al reported miscarriage after domestic violence in their study. Very limited information is available on the effect of violence on perinatal and neonatal deaths and its long term effect on child survival.

Many studies examined the adverse pregnancy outcome due to domestic violence. In United States, it has been observed that 0.9% to 20.1% of pregnant women face violence. In our study unemployment was detected to be the chief cause for violence among pregnant women though violence was not found to be associated with pregnancy loss. The stress of coming newborn may be the reason for the increased violence during pregnancy. Ultimate frustration under the effect of this stress is directed back at the mother and her fetus. The underline cause of frustration shown by the male partner was not clear and more research is required to understand the problem and its solution so that we find better ways to help women at risk.

## CONCLUSION

Adverse pregnancy outcomes were not found to be associated with domestic violence

## RECOMMENDATIONS

Further research is required which should comprise of qualitative as well as quantitative approach and investigate in to the mechanism of how violence in pregnant women may lead to adverse fetal outcome. With proper information we can successfully intervene and limit violence on pregnant women and her fetus.

## REFERENCES

1. BB Bifttu, BADachew, BT Tiruneh, AZ Zewoldie. Domestic Violence among Pregnant Mothers in Northwest Ethiopia: Prevalence and Associated Factors *Advances in Public Health* Volume 2017. ID 6506231, <https://doi.org/10.11552017/6506231>
2. BM Donovan, CN Spracklen, ML Schweizer, KK Ryckman, AF Saftlasa 'Intimate partner violence during pregnancy and the risk for adverse infant outcomes: a systematic review and meta-analysis. *BJOG* 2016; 123(8):1289-99.
3. Thanh Nguyen Hoang, Toan Ngo Van, Tine Gammeltoft, Dan W. Meyrowitsch, Hanh Nguyen Thi Thuy, Vibeke Rasch Association between Intimate Partner Violence during Pregnancy and Adverse Pregnancy Outcomes in Vietnam: A Prospective Cohort Study *PLoS One* 2016; 11(9): e0162844.
4. Monika Shrestha, Sumina Shrestha and Binwala Shrestha "Domestic violence among antenatal attendees in a Kathmandu hospital and its associated factors: a cross-sectional study" Shrestha et al. *BMC Pregnancy and Childbirth* 2016; 16:360 DOI 10.1186/s12884-016-1166-7
5. Semahegn A, Mengistie B. Domestic violence against women and associated factors in Ethiopia; systematic review. *Reprod Health* 2015; 12:78. doi:10.1186/s12978-015-0072-1
6. Ashimi and T. Amole, "Prevalence and predictors for domestic violence among pregnant women in a rural community Northwest, Nigeria," *Nigerian Medical Journal*, vol. 56, no. 2, pp. 118, 2015.
7. Sharps, P.W., Bullock, L.F., Campbell, J.C. et al, Domestic violence enhanced perinatal home visits: the DOVE Randomized Clinical Trial. *J Womens Health* 2016; 25:1129-1138.
8. Marcelo L Urquia, Patricia J O'Campo, Maureen I Heaman, Patricia A Janssen & Kellie R Thiessen Experiences of violence before and during pregnancy and adverse pregnancy outcomes: An analysis of the Canadian Maternity Experiences Survey *BMC Pregnancy and Childbirth* volume 11, Article number: 42 (2011)
9. Lindsay E. Clark, Rebecca H. Allen, Vinita Goyal, Christina Raker, Amy S. Gottlieb. Reproductive coercion and co-occurring intimate partner violence in obstetrics and gynecology patients. *AJOJ* 2014; 210(1):1-42.
10. Zareen N1, Majid N, Naqvi S, Saboohi S, Fatima H. Effect of domestic violence on pregnancy outcome. *J Coll Physicians Surg Pak*. 2009; 19(5):291-6. doi: 05.2009/JCPSP.291296.
11. CL, Ciciolla L, Crnic KA, et al. Intimate partner violence before and during pregnancy: related demographic and psychosocial factors and postpartum depressive symptoms among Mexican American women. *J Interpers Violence* 2015; 30:659-79. doi:10.1177/0886260514535262
12. Trần Thơ Nhi, Nguyễn Thị Thủy Hạnh, Tine M. Gammeltoft Emotional violence and maternal mental health: a qualitative study among women in northern Vietnam *BMC Womens Health* 2018; 18: 58. doi: 10.1186/s12905-018-0553-9
13. Vibeke Rasch, Toan Ngo Van, Hanh Thi Thuy Nguyen, Rachel Manongi, Declare Mushi, Dan W. Meyrowitsch, Tine Gammeltoft, Chun Sen Wu Intimate partner violence (IPV): The validity of an IPV screening instrument utilized among pregnant women in Tanzania and Vietnam *PLoS One* 2018; 13(2): e0190856.
14. Hill A, Pallitto C, McCleary-Sills J, Garcia-Moreno C. A systematic review and meta-analysis of intimate partner violence during pregnancy and selected birth outcomes. *Int J Gynaecol Obstet*. 2016; 133(3):269-76.
15. Kataoka Y, Imazeki M, Shinohara E. Survey of intimate partner violence before and during pregnancy among Japanese women. *Jpn J Nurs Sci* 2016; 13: 189-95.

16. Finnbogadottir H, Dykes AK. Increasing prevalence and incidence of domestic violence during the pregnancy and one and a half year postpartum, as well as risk factors: -a longitudinal cohort study in Southern Sweden. *BMC pregnancy and Childbirth* 2016; 16: 327.
17. Sarayloo K, MirzaeiNajmabadi K, Ranjbar F, BehboodiMoghadam Z. Prevalence and Risk Factors for Domestic Violence against Pregnant Women. *Iran Journal of Nursing*. 2017; 29 (104) :28-35.
18. Kita S, Haruna M, Matsuzaki M, Kamibeppu K. Associations between intimate partner violence (IPV) during pregnancy, mother-to-infant bonding failure, and postnatal depressive symptoms. *Arch WomensMent Health* 2016;19(4):623–34. <https://doi.org/10.1007/s00737-016-0603-y>.
19. Christian A. Chisholm, MD,Linda Bullock, PhD, RN,James E. (Jef) Ferguson II, MD, MB. Intimate partner violence and pregnancy: screening and intervention. *Am J Obstet Gynecol*. 2017;217(2):145–149. <https://doi.org/10.1016/j.ajog.2017.05.043>.
20. Christian A. Chisholm, MD,Linda Bullock, PhD, RN,James E. (Jef) Ferguson II, MD, MB. Intimate partner violence and pregnancy: epidemiology and impact *AJOG* August 2017 Volume 217, Issue 2, Pages 141–144. <https://doi.org/10.1016/j.ajog.2017.05.042>
21. Hoang TN, Van TN, Gammeltoft T, Meyrowitsch DW, Nguyen ThiThuy H, Rasch V. Association between Intimate Partner Violence during Pregnancy and Adverse Pregnancy Outcomes in Vietnam: A Prospective Cohort Study. *PLoS one*. 2016;11(9):e0162844. pmid:27631968
22. Megan Hall,Lucy C. Chappell,Bethany L. Parnell, Paul T. Seed, Susan Bewley.Associations between Intimate Partner Violence and Termination of Pregnancy: A Systematic Review and Meta-Analysis Published: January 7, 2014 <https://doi.org/10.1371/journal.pmed.1001581>
23. Christina C. PallittoClaudia García-MorenoHenrica A.F.M. JansenLori HeiseMary EllsbergCharlotte Watts on behalf of the WHO Multi-Country Study on Women's Health and Domestic Violence published: 06 September 2012<https://doi.org/10.1016/j.ijgo.2012.07.003>
24. B Abebe Abate, B AdmassuWossen, T. TilahunDegfie, "Determinants of intimate partner violence during pregnancy among married women in AbayChomen district, Western Ethiopia: A community based cross sectional study," *BMC Women's Health* 2016;16(1)
25. S.Shamu, NAbrahams, CZarowsky, T.Shefer, MTemmerman, "Intimate partner violence during pregnancy in Zimbabwe: A cross-sectional study of prevalence, predictors and associations with HIV," *Tropical Medicine & International Health*, vol. 18, no. 6, pp. 696–711, 2013.
26. LA Makayoto, J Omolo, AM Kamweya, VS Harder, J Mutai, "Prevalence and associated factors of intimate partner violence among pregnant women attending Kisumu District Hospital, Kenya," *Maternal and Child Health Journal* 2013;17(3) 441-47.
27. Z Iliyasu, IS Abubakar, H S Galadanci, Z Hayatu, MH Aliyu, "Prevalence and Risk Factors for Domestic Violence Among Pregnant Women in Northern Nigeria," *Journal of Interpersonal Violen* 2013;28(4)868–88.
28. M. Salazar and M. San Sebastian, "Violence against women and unintended pregnancies in Nicaragua: A population-based multilevel study," *BMC Women's Health* 2014; 14(1)
29. Kingston, D., Heaman, M., Urquia, M. et al, Correlates of abuse around the time of pregnancy: results from a National Survey of Canadian women. *Matern Child Health J* 2016;20:778–789.
30. Alhusen, J., Ray, E., Sharps, P., Bullock, L. Intimate partner violence during pregnancy: maternal and neonatal outcomes. *J Womens Health* 2015;24:100–107.
31. Alhusen, J., Bullock, L., Sharps, P., Schminkey, D., Comstock, E., Campbell, J. Intimate partner violence during pregnancy and adverse neonatal outcomes in low-income women. *J Womens Health* 2014;23:920–926.
32. Taft, A., Hooker, L., Humphreys, C. et al, Maternal and child health nurse screening and care for mothers experiencing domestic violence (MOVE): a cluster randomised trial. *BMC Med*. 2015;13:150.
33. Bianchi, A., Cesario, S., McFarlane, J. Interrupting intimate partner violence during pregnancy with an effective screening and assessment program. *J ObstetGynecol Neonatal Nurs*. 2016;45:579–591.
34. Impacts, risk factors and responses".*Contemporary Nurse* Volume 46, 2014 - Issue 2pp 170-179 Jessica Wong& David Mellor,"Intimate partner violence and women's health and wellbeing:
35. Reema R. Safadi, Mayada A. Daibes, Waheda H. Haidar, Ahmad H. Al-Nawafleh and Rose E. Constantino, Assessing Intimate Partner Abuse: Associated Factors and Health Consequences among Jordanian Women, *Issues in Mental Health Nursing*, (1), (2018).