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## Risk Factors of Domestic Violence in Pregnancy and Its Correlation with Mental Health Disorders

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### ABSTRACT

Domestic violence during pregnancy is a neglected & underreported problem having grave consequences. The world health organization (WHO) defines domestic violence as “the range of sexually, psychologically and physically coercive acts used against adult and adolescent women by current or former male intimate partners”. Physical & verbal abuse during pregnancy is a frequent phenomenon encountered by women of both developed and underdeveloped country, belonging to all cultural communities. There is a strong evidence that domestic violence is related to maternal mental health disorders. The aim of this literature study is to find the best available research evidence on risk factors of domestic violence in pregnancy and its correlation to mental health disorders. To achieve the goal of this study, researcher searched for all studies published between January 2010 until August 2021 using the databases such as google scholar and PubMed. The inclusion criteria were studies that describe risk factors of domestic violence in pregnancy and its correlation with maternal mental health and written in English language. Condition such as mental retardation, substance abuse and pre-existing mental health problems before were excluded from this study. After a long review of the titles and abstracts of 358 studies, 20 studies were identified for potential inclusion in the review. In the end, a total of 10 trials that fulfil researcher criteria were used in this literature review. The number of participants in each study varied, ranged from 300 to 1000 and the characteristics of the sample are similar. Domestic violence against women and mental disorders amongst pregnant women are extremely prevalent in under-resourced, urban areas and ultimately, have detrimental effects on birth outcomes. Mental health disorders are significantly associated with having experienced domestic violence in pregnancy. High risk population needs to be identified so that preventive strategies can be planned & implemented to stop the violence and improve mental health during pregnancy.

### 1. Introduction

Domestic violence during pregnancy is one of the neglected & underreported problem having grave consequences. The world health organization (WHO) defines domestic violence as “the range of sexually, psychologically and physically coercive acts used against adult and adolescent women by current or former male intimate partners”. Women are susceptible to different forms of abuse in developed countries, but domestic violence is found to be the most common form in industrialized countries. According to an estimate about 2 million women are a

victim of physical assault every year and more than 50 million have lifetime risk of being assaulted.<sup>2,4</sup>

Physical & verbal abuse during pregnancy is a frequent phenomenon encountered by women of both developed and underdeveloped world, belonging to all cultural communities, but some populations (for example, low income groups) are more vulnerable. As revealed by studies, about 10 – 69% of women are victims of domestic assault during their lifetime. WHO multi- countries study on women’s health and domestic violence shows 15–71% of women being

victims of domestic violence. According to another study done in postpartum women in a tertiary care hospital in Karachi, 44% of women had physical abuse and 80% were reported to be sufferers of verbal abuse during their married life.<sup>4,8</sup>

Previous research has found an association between mental disorder and being a victim of domestic violence (i.e., intimate partner violence and/or violence perpetrated by another family member) that is not diagnostically specific; associations have been found for common mental disorders, eating disorders, and psychosis and domestic violence in non-perinatal populations studies, equating to approximately 152,000 to 324,000 pregnant women experiencing abuse each year in the US, in low and middle-income countries the prevalence can be higher. There is strong evidence that domestic violence increases the risk of low birth weight, and growing evidence of an association with pre-term labour, miscarriage, fetal death, and subsequent child behavioural problems. Domestic violence can also be a cause of maternal death.<sup>2</sup>

The aim of this literature study is to find the best available research evidence on risk factors of domestic violence in pregnancy and its correlation to mental health disorders.

## **2. Methods**

The researcher searched for all studies published between January 2010 until August 2021 using the databases such as google scholar and PubMed. The following keywords were used to do the literature search: “Domestic Violence” AND “Pregnancy” AND “Mental Health Disorders”. This research was limited to risk factors of domestic violence in pregnancy and its correlation with mental health. It must be published in English language in order to be put in this literature review. Additional studies were identified through a manual search of the bibliographic references of the relevant articles and existing reviews. The inclusion criteria were studies that describe risk factors of domestic violence in pregnancy and its correlation with maternal mental

health. Condition such as mental retardation, substance abuse and pre-existing mental health problems before were excluded from this study. Moreover, because these confounding factors are difficult to account for this study, the adjusted results were used and discussed in this article when available. In the first step, researcher assess the titles and abstracts of the studies to exclude articles based on the criteria. The next step was researcher read and evaluated the full-text studies that met the criteria.

## **3. Results**

The PubMed and google scholar search results identified 358 potential studies, with 320 potential studies remaining after duplicates were removed. After a review of the titles and abstracts of all 320 studies, 20 studies were identified for potential inclusion in the review. After examination of the full text of the 20 studies against the inclusion criteria, a total of 10 trials were excluded.

Reasons for exclusion were: studies that include other conditions (e.g. mental retardation, substance abuse and pre-existing mental health problems before) and literature that was not in English. See Figure 1 for the study selection and inclusion process. The 10 selected studies were consist of 2 systematic reviews, 3 literature reviews, 4 cross sectional studies and 1 cohort prospective study, conducted in different countries such as United States, United Kingdom, Brazil, Greece, Nepal, India, Pakistan and Ethiopia. The number of participants in each study varied, ranged from 300 to 1000 and the characteristics of the sample are similar.

## **4. Discussion**

Violence is a major public health issue in developing countries, where 90% of these events occur [22]. In Latin America, this has been found to be primarily an urban phenomenon, with the highest concentrations of violence occurring in the peripheries of major cities [23, 24]. The global estimate for repeated intimate partner violence among ever-partnered women is 30.0% (95% CI 27.8– 32.2) [25]. A

recent meta-analysis found that violence towards women during pregnancy remains at an average of 14.4% (IQR 13.2–25.7) [26]. In developed countries, physical violence against the female partner has been estimated to occur in up to 20% of pregnancies [27]. Meanwhile, in Latin America, a Mexican [28] study reported rates of 33.5%, while a Brazilian study reported a rate of 33.8% [29]. The predictors of domestic violence found in the studies could be classified into four groups: those related to either the women's, her husband's, or her mother-in-law's characteristics, and those factors shared between the married couple.<sup>1,8</sup>

Two third of women did experience domestic violence by their husband or intimate partner. Approximately half of women experienced physical violence as well and emotional violence by their husband/ intimate partner. The mean life time prevalence of emotional violence was 51.7%. Domestic violence significantly associated with substance abuse (alcohol consumption and substance abuse), family history of violence, occupation being housewife, educational being literate status, residence being rural and decision making power. Majority of the women kept silent without reporting the violence to concerning bodies that are in position or authority. Approximately three quarter of women accept wife beating if husband has at least one justified. Significant number of women had experienced domestic violence during their pregnancy period by the father of the child and victimized so many injuries.<sup>4,5</sup>

The result of WHO multi county study<sup>1</sup> conducted in almost 11 countries also showed significant correlation between alcohol abuse and domestic violence. The link between addiction of husband especially alcohol abuse and domestic violence has been highlighted by Heidistock et al in 2014 and scores of other studies, showing strong and consistent association between violence against women and abuse of alcohol by abusive husband.<sup>4</sup>

As for as education status of both husband and wife was concerned, domestic violence was less prevalent in couples where either husband or wife

were educated. Due to low literacy rate of Pakistan, couples who completed even primary education were categorised as educated.<sup>4</sup>

Women education and empowerment is correlated with vulnerability to domestic violence. In our study, it was found that there were three times more chances of women being victimised by uneducated husband (75%) compared to 25% women being victims of violence by educated husband. Hamzeh et al (Iran) also conducted in their study about better husband education level does give protection against domestic violence.<sup>4</sup>

Domestic violence was found to be more prevalent among women who had forced marriage (40%) than marriage by choice (6%). Similar findings were also reported by Gracio-Moreno in WHO multi country study which shows that women are less prone to be abused by husband if their choice was considered in decision making of marriage. Having forced to marry someone they don't want to, was associated with more chances of being abused.<sup>4</sup>

Certain demographic factors did not influence the outcome of our study significantly. There was no statistically significant difference in prevalence of domestic violence among low or middle socioeconomic group, primigravida & multigravida, urban & rural residence, duration of marriage or joint & nuclear family system. While in comparison with national studies, Karamalian and others reported urban Pakistani women of younger age more were more prone to domestic violence.<sup>4</sup>

Moreover, maternal mental disorders are also highly prevalent. A systematic review [30] of studies of depression during pregnancy, which included 21 studies (only one from a developing country) reported a prevalence of 7.4%, 12.8% and 12% for the first, second, and third trimesters, respectively.<sup>1</sup>

This relation between violence and poor mental health is not new. In a meta-analysis, Golding [34] found that the weighted Odds Ratios of the association between different mental disorders and violence varied from 3.5 to 5.6; the most common disorders among those who suffered violence were depression and post-

traumatic stress disorders. A cross-sectional study in Brazil [35] found that adolescents who were victims of violence during pregnancy were 4.3 times more likely to also suffer from common mental disorders (95% CI 1.7–10.9). More recently, the WHO reported a pooled OR = 1.97 (95% CI 1.56–2.48) in a review of 6 studies about the association between depression and violence [25]. Recent trends in urbanization and westernization have been thought to contribute to the rise in violence and mental health problems, as a result of changes in family structure, deterioration of traditional social networks, new environments challenging traditional values and beliefs, and other emerging categories of vulnerability [36]. Adverse life events, such as violence, are known risk factors for poor mental health [37], thus supporting our finding that the magnitude of negative effects would be even higher when both factors were present.<sup>1,10</sup>

One of systematic review in researcher's source found that high levels of symptoms of all types of perinatal mental disorders included in studies to date (i.e., antenatal and postnatal anxiety, depression, and PTSD) were associated with having experienced domestic violence, although causality cannot be inferred. Pooled estimates from cross sectional studies show that women with probable depression in the antenatal and postnatal periods have 3- to 5-fold increased unadjusted odds of having experienced domestic violence over the adulthood lifetime, during the past year, and during pregnancy, with correspondingly high prevalence estimates.<sup>2</sup>

Domestic violence during pregnancy is associated with depression, both during pregnancy<sup>19,33,34</sup> and in the postpartum period.<sup>35–37</sup> Indeed, women experiencing abuse during pregnancy are 2.5 times more likely to report depressive symptomatology than their nonabused counterparts.<sup>22</sup> Depression has been identified as the most common mental health consequence of domestic violence during pregnancy, with nearly 40% of abused women reporting depressive symptomatology.<sup>34,38</sup> Post-traumatic stress disorder (PTSD) is also a common sequelae of domestic violence with reported rates of PTSD ranging

between 19% and 84%.<sup>39–41</sup> Abused women experience depression and PTSD as comorbidities at significantly higher rates than nonabused women. Research examining depression and PTSD had found that in 49% - 75% of the cases, major depression co-occurred with PTSD.<sup>6</sup>

Meta-analysis of data from longitudinal studies suggests that women who experience domestic violence during pregnancy have 3-fold increased unadjusted odds of probable depression in the postnatal period. The pooled PAF of 12.7% (95% CI 11.8%– 13.6%) calculated from these studies suggests that, if the association between domestic violence during pregnancy and postnatal depression are causal, experiences of domestic violence during pregnancy may contribute to the burden of postnatal mental disorder, and underlines the importance of domestic violence as a public health problem. Individual longitudinal studies also suggest that women with probable depression in the antenatal period have 3- to 5-fold increased odds of experiencing domestic violence during or up to a year after pregnancy. Although causality cannot be inferred, these findings suggest that a two-way association between experiences of domestic violence and probable depression in the antenatal and postnatal periods is likely, in which symptoms of depression may increase women's vulnerability to domestic violence, and having experienced domestic violence can increase the odds of probable depression in the antenatal and postnatal period. Insufficient data were available for other perinatal mental disorders to draw conclusions about the direction of causality for associations.<sup>2</sup>

The gravest consequences of domestic violence during pregnancy include homicide and suicide. Several studies have indicated that maternal injury is a leading cause of maternal mortality.<sup>44–46</sup> Homicide and suicide are two potentially prevent causes of maternal injury. A recent study utilized a multistate sample from the National Violent Death Reporting System and found pregnancy- associated suicide and homicide rates of 2.0 and 2.9 deaths per 100,000 live

births, respectively. Further, 54.3% of pregnancy-associated suicides involved intimate partner conflict attributable to the suicide, and 45.3% of pregnancy-associated homicides were associated with domestic violence.<sup>47</sup> Similar results have been found in several other studies.<sup>48–51</sup> These findings highlight that pregnancy associated suicide and homicide each account for more deaths than many of the more “traditional” obstetrical causes of maternal mortality that receive greater attention.<sup>6,11</sup>

Aside from the disturbing fact that women who are pregnant are physically and sexually abused, there are a number of consequences of pregnancy-related violence both for the unborn child and for the pregnant mother. These consequences include late entry into prenatal care, low birth weight babies, premature labor, unhealthy maternal behaviors, fetal trauma, and health issues for the mother (See Table 3 for a summary of these consequences). Although a significant body of research finds that violence during pregnancy is associated with negative maternal outcomes, it has also been suggested that many of the factors associated with increased risk for victimization (e.g., youth, alcohol use, poverty) are the same factors associated with negative maternal outcomes.<sup>12</sup>

## 5. Conclusion

Domestic violence against women and mental disorders amongst pregnant women are extremely prevalent in under-resourced, urban areas and ultimately, have detrimental effects on birth outcomes. It is a common & often neglected psychosocial health problem.<sup>1,4,5</sup>

Symptoms of perinatal depression, anxiety, and PTSD are significantly associated with having experienced domestic violence. High risk population needs to be identified so that preventive strategies can be planned & implemented to stop the violence and improve mental health during pregnancy.<sup>2,11</sup>

Appropriate domestic violence intervention programs such as domestic violence awareness program for both husband and wife, women empowerment program, and health institution-based

domestic violence screening program as well as rehabilitation support should be focused on the pregnant and postpartum period mothers. These types of programs will be crucial for preventing domestic violence and minimizing its effects. Furthermore, strict law enforcement to the perpetrator of this horrific crime should be implemented. This will raise the social awareness that violence against women by her husband is an unacceptable act and is a crime by itself. Further study on the pattern of domestic violence during pregnancy and the postpartum period should be extended to the community level.<sup>8</sup>

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