

DETERMINANTS OF VIOLENCE DURING PREGNANCY AND ITS ASSOCIATION WITH POSTNATAL DEPRESSION AMONG WOMEN IN MULTAN, PAKISTAN

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ABSTRACT

This study aimed to explore the health impacts of intimate partner violence (IPV) on the physical and mental health of pregnant women. This was a cohort study in which 400 pregnant mothers attending the antenatal outpatient departments of six Public and private hospitals in Multan, Pakistan, were selected through a systematic random sampling technique. The Hurt, Insulted, Threatened and Screamed at (HITS) screening tool was used to assess the level of violence during pregnancy, and the Edinburgh Postnatal Depression Scale (EPDS) was used to assess postpartum depression. Associations were also investigated between violence in pregnancy and selected sociodemographic variables, residential differences in the occurrence of violence and depression in the postpartum period, with descriptive statistics and chi-square tests. A p-value <0.05 was deemed to be statistically significant. Although there was a high proportion of respondents who screened positive for violence during pregnancy, a significant number also had a negative score indicating no violence occurred. Violence was found to be significantly associated with demographics (place of residence, education and husband's occupation), economic well-being (household income), previous history of violence, attitudes of husband, substance abuse, controlling behavior and support for antenatal care ($p < 0.05$). Women who lived in rural areas had higher levels of all types of physical, psychological and sexual violence than women in urban areas. There was no significant difference in the incidence of economic violence across the residential settings; however, the frequency of psychological violence differed most across residential settings. Women who experienced violence during pregnancy had a significantly higher proportion of probable depression relative to those who screened negative on the HITS scale ($p=0.001$). Women who experienced violence during pregnancy had a significantly higher proportion of probable depression relative to women who screened negative on the HITS scale ($p=0.001$). Violence during pregnancy was considerable and had a significant relationship with the various sociodemographic, behavioral, and household factors.

KEYWORDS: Edinburgh Postnatal Depression Scale, maternal mental health, antenatal care, controlling behavior, South Punjab

INTRODUCTION

Violence against women, specifically intimate partner violence (IPV), is a significant public health and human rights issue that has wide-ranging implications for women's physical, mental, and reproductive health and has also been shown to negatively impact their overall well-being. IPV is behavior in an intimate relationship that causes physical, sexual, or psychological harm, according to the World Health Organization (WHO).¹ The prevalence of IPV is further emphasized by estimates that one in four women aged 15–49 years worldwide have experienced it in their lifetime, and that it is responsible for mental health disorders, decreased quality of life, and impacts on reproductive outcomes in the context of preventing and responding to this public health problem.²

Pregnancy can also be a time of vulnerability when violence can start or escalate. Therefore, while violence in pregnancy remains a topic of concern to the social and legal system, it has also been identified as an important factor affecting maternal and neonatal health, rather than a social or legal issue including but not limited to the adverse outcomes such as maternal depression, inadequate use of PNC, maternal social and psychological dysfunction, maternal morbidity and mortality, low birth weight, stillbirth, maternal anaemia, infections, preterm birth, and infant health.^{3,4}

The previous studies focused on individual-level factors associated with IPV during pregnancy, such as childhood inter-parental exposure, early marriage, dowry payment, residence, alcohol use, and/or education. Therefore, it is critical to consider violence as a multifaceted event involving interactions both at the community and individual levels, moving beyond individual characteristics like education or dowry practices to incorporate community-level determinants.⁵ Evidence confirms that intimate partner violence during pregnancy is driven by an interactive mix of socioeconomic (e.g., poverty, low education), behavioral (e.g., substance/alcohol abuse), and social factors (e.g., poor community support, patriarchal norms). This combination significantly compounds risks for both mother and child.⁶

Poverty, systemic economic dependency, and entrenched patriarchal norms prevent women and girls in Pakistan from reporting gender-based violence (GBV) and leaving abusive relationships, trapping them in dangerous domestic environments.⁷ Cultural taboos on divorce push women away from reporting abuse and leaving relationships, while the legal climate perpetuates the cycle by often failing to protect them from violent actions. Domestic violence is severely under-reported; not only as a huge problem as described above, but it is also underreported because many women are afraid of retaliation, social exclusion, or family disapproval.^{1,8}

Domestic violence during pregnancy is not limited to a specific region or country, with nearly a third of all women experiencing either verbal, psychological, or physical abuse at some point in their life, regardless of whether their pregnancy has taken place or not.⁹ Worldwide, there is also great variation in rates of domestic violence. The World Health Organization (WHO) landmark multi-country study highlights that intimate partner violence is pervasive but highly variable. It estimates lifetime prevalence rates of physical or sexual violence ranging widely between 15% and 71% among women, with the highest rates typically found in isolated, male-dominated or socioeconomically disadvantaged contexts.¹⁰

Pregnancy violence, often manifesting as Intimate Partner Violence (IPV), is a severe yet widely underreported public health crisis in Pakistan. Research indicates alarming prevalence rates, with studies estimating that up to 41% to 57.6% of women in Pakistan experience psychological, physical, or sexual abuse during their lifetime, and pregnancy does not act as a protective factor.⁹ The researchers have reported that Intimate Partner Violence (IPV) in South Punjab, Pakistan, remains a critical public health and human rights crisis characterized by high under-reporting, a lack of localized data, and distinct cultural dynamics. While international frameworks offer general models, local research highlights that up to 80% of Pakistani households face some form of IPV, with South Punjab historically registering as a hotspot for domestic violence. However, systemic barriers leave major empirical and qualitative gaps regarding the region's specific vulnerabilities.¹¹ Such a dearth of local evidence makes it difficult to create context-specific prevention strategies and embed violence screening as part of routine maternal care. To effectively expand this evidence base in Multan, we must examine how patriarchal power structures, low literacy, and socioeconomic dependencies heighten female vulnerability across urban, peri-urban, and rural areas. The Findings from this study provide vital, evidence-based data to bridge critical gaps in clinical guidelines regarding intimate partner and domestic violence during pregnancy. They serve as leverage to mandate routine screening, structure comprehensive follow-up support, and build culturally sensitive safety and empowerment programs for women.

METHODOLOGY

A hospital-based prospective cohort study was conducted in public and private hospitals in Multan, Pakistan, involving 400 pregnant women attending the antenatal outpatient departments. This study included only women who were 18–49 years old, permanent residents of Multan, and had provided informed consent, and excluded those with known severe psychiatric illness and/or cognitive impairment. Participants were selected systematically by taking every third woman who appeared at the antenatal clinic until the desired number of women was obtained. A semi-structured questionnaire with face-to-face interviews was used for data collection, which included sociodemographic characteristics, history of violence, husband's occupation, attitude, substance abuse, controlling behavior of their husbands, support for antenatal care, and residence. The Hurt, Insulted, Threatened, and Screamed at (HITS) screening tool was used to assess violence during pregnancy. The HITS instrument has four items, which were scored on a 5-point Likert-type scale, so that the final score ranges from 4 to 20. Participants who had scores of more than 10 were considered HITS positive (those who experienced violence during pregnancy), and those who had scores of 10 or below were classified as HITS negative. Symptoms of depression during the postpartum period were assessed using the Edinburgh Postnatal Depression Scale (EPDS) with 10 items; each scored from 0–3 with total score of 30, and those who scored in the normal range '0-9' were classified as depression-free; the others with score of '10-12' were classified as 'possible depression' and the participants with score '13-30' were identified as positively screened for depression or 'probable depression' according to the scoring system suggested by the EPDS.

The Statistical Package for the Social Sciences (SPSS) version 26 was used to enter and analyze the data. Participants' characteristics were summarized using descriptive statistics and frequencies and percentages were used to represent the categorical dataset. The Pearson's Chi-square test was used to explore relationships between sociodemographic factors, residential history of violence, and postnatal depression. A two-sided p-value of <0.05 was considered statistically significant. Ethical approval was obtained from the Ethical Review Board of Times University, Multan, and informed consent was obtained from all study participants prior to data collection. Confidentiality and anonymity of participants were ensured during and after the study.

RESULTS

It was found in the present study that 28.8% of the respondents faced violence during pregnancy, while the remaining 71.2% did not report violence. Bivariate associations between selected sociodemographic and household characteristics and pregnancy-induced violence (screened by the HITS) are given in Table 1. The analysis shows that most of the variables analyzed were statistically significantly associated with violence during pregnancy, meaning that the incidence of violence occurred across various socioeconomic, behavioral, and

household factors. These results are from bivariate analyses and should, therefore, be interpreted with caution as they are unadjusted associations.

Residential area did not show a significant association with violence, but that value was very close to violence during pregnancy ($\chi^2 = 5.30$; $p = 0.071$). Education of the respondents was also non-significantly associated with violence ($\chi^2 = 8.48$, $p = 0.075$). There were significantly more women who were HITS positive and had little or no formal education than women who were HITS negative and had higher levels of education, especially a bachelor's degree or more. In general, the results show that there was an inverse relationship between the level of education and the occurrence of violence among women who were early pregnant (Table 1).

In addition, non-significant differences were found between violence in pregnant women and husbands' occupation ($\chi^2 = 1.46$, $p = 0.918$). Violence during pregnancy seemed to be more common in women whose husbands were laborers or not working compared with government employees. Among the various socioeconomic factors, the monthly income of families showed the strongest association with violence during pregnancy ($\chi^2 = 2024$, $p = 0.001$). Women from lower-income families were overrepresented in our sample of women who were found to be victims of violence, while women from higher-income families were underrepresented (Table 1).

There was a strong association between a previous history of violence and current violence during pregnancy ($\chi^2 = 32.96$, $p = 0.001$). The HITS-positive women were significantly more likely to be victims of violence in their past life history than the non-HITS group, indicating that women are often victims of violence at multiple phases of their lives. Another important correlate of violence was husband's attitude ($\chi^2 = 9.45$, $p = 0.009$). Women who mentioned a harsh attitude of their husband were more likely to have positive HITS scores, while women who described their husband as good were more likely to be in the negative range for scores in the HITS questionnaire. This gradient shows that less favorable spousal behavior was also consistently correlated to a higher incidence of violence during pregnancy (Table 1).

In the same way, substance abuse by the husbands was found to be statistically significant with violence ($\chi^2 = 17.09$, $p = 0.017$). Women with husbands who smoked, women with husbands who drank alcohol, women who mentioned their husbands used pan/niswar, women who said their husbands gambled, women who reported that their husbands used heroin, and women who responded that their husbands used other substances represented a higher proportion of women who suffered violent incidents compared to women with husbands who did not report any substance use. On the other hand, women who tested negative for violence were significantly more likely to not have substance abuse. Furthermore, the strongest relationships were found with husbands' controlling behavior ($\chi^2 = 72.59$; $p = 0.001$). Bivariate analysis showed a statistically significant association between husbands' controlling behavior and violence during pregnancy ($\chi^2 = 72.59$, $p = 0.001$). Among women whose husbands did not exhibit controlling behavior, 87.8% did not experience violence during pregnancy, whereas only 12.2% reported violence. Conversely, among women whose husbands displayed controlling behavior, more than half (51.2%) experienced violence during pregnancy compared with 48.8% who did not. These findings suggest that husbands' controlling behavior is strongly associated with an increased likelihood of violence during pregnancy. (Table 1).

For support in attendance at antenatal services, there was also a significant association with violence during pregnancy ($\chi^2 = 37.19$, $p = 0.001$). When husbands oppose care, pregnant women face restricted autonomy, leading to higher rates of abandoned clinic visits. Conversely, supportive partners foster safe, non-violent environments, making women more likely to complete their recommended antenatal care (ANC). The difference observed is not large, although it was statistically significant (Table 1).

Table 2A and 2B show associations between specific patterns of violence experienced during pregnancy and place of residence at a bivariate level. Results show a statistically significant relationship between nearly all measures of physical and psychological violence, while these factors were not significantly associated with sexual and economic violence. For many of the selected indicators of violence, women living in rural areas did not report significant violence. Place of residence had the highest and most robust association with psychological violence. There were very significant relationships with residence ($p = 0.009$) for feelings of insult or degradation from family members, the husband's aggressiveness or verbal abuse, criticism regarding household duties, seeing abuse by family and friends, and not being allowed to make decisions on their own. Likewise, there were significant differences between residential groups in terms of threats of harm or divorce due to interaction with in-laws ($p = 0.013$) and in terms of low self-esteem or anxiety experienced because of interactions with in-laws ($p = 0.009$). Moreover, the aggressive behavior of the husband ($p = 0.048$), freedom to make independent decisions ($p < 0.001$), and restrictions on going out/social support ($p = 0.011$) were also significant indicators of violence (Table 2A). Residential indicators were not significantly associated with sexual and economic violence (Table 2B). None of the indicators based on economic violence show a statistically significant association with place of residence. Household expenses or pocket money ($p = 0.102$) or having some paid work to do ($p = 0.132$) showed some differences by residential type, but there was not enough evidence to draw a conclusion about the relationship between these differences and place of residence. The results indicate the possibility of economic control being more prevalent than originally thought, rather than it being set in a specific geographic location (Table 2B).

Bivariate associations between the HITS screening for violence in the postnatal care period and the Edinburgh Postnatal Depression Scale (EPDS) were summarized by using routines and functions from Table 3. The chi-square tests showed a very significant relationship between violence during pregnancy and the severity of depression symptoms ($\chi^2 = 369.18$, $p = 0.001$), indicating that HITS scores reflect different elevations of depression

categories depending on violence during pregnancy. Probable depression among women who screened positive during pregnancy was overrepresented compared to the other groups, such as the women who screened negative for violence and were excluded from the probable depression group. Females who screened negative for violence had a relatively wider distribution across the EPDS categories, with a higher percentage in the no depression and possible depression categories than those for violence. The results show that sensitivity to violence during pregnancy significantly contributed to the elevated levels of postpartum depressive symptoms (Table 3).

Table 1. Bivariate analysis of sociodemographic factors with violence during pregnancy based on HITS score

Variable	HITS Negative n (%)	HITS Positive n (%)	Total n=400	χ ²	p-value
Place of Residence					
Peri-Urban	78 (65.0)	42 (35.0)	120	5.30	0.071
Rural	100 (78.1)	28 (21.9)	128		
Urban	107 (70.4)	45 (29.6)	152		
Educational Status of Respondent					
Illiterate	55 (67.9)	26 (32.1)	81	8.48	0.075
Primary	62 (63.3)	36 (36.7)	98		
Matric	74 (77.1)	22 (22.9)	96		
Intermediate	51 (69.9)	22 (30.1)	73		
Bachelor's or above	43 (82.7)	9 (17.3)	52		
Husband's Occupation					
Govt. employee	59 (75.6)	19 (24.4)	78	1.46	0.918
Private employee	71 (69.6)	31 (30.4)	102		
Laborer	37 (74.0)	13 (26.0)	50		
Agriculture	79 (69.9)	34 (30.1)	113		
Businessman	10 (71.4)	4 (28.6)	14		
Unemployed	29 (67.4)	14 (32.6)	43		
Family income per month in PKR					
Up to 30,000	112 (60.9)	72 (39.1)	184	20.24	0.001*
30,001 to 70,000	97 (82.2)	21 (17.8)	118		
70,001 to 100,000	50 (73.5)	18 (26.5)	68		
Above 100,000	26 (86.7)	4 (13.3)	30		
Violence before current pregnancy					
No	184 (82.9)	38 (17.1)	222	32.96	0.001*
Yes	101 (56.7)	77 (43.3)	178		
Husband's attitude					
Good	101 (80.8)	24 (19.2)	125	9.45	0.009*
Normal	116 (69.5)	51 (30.5)	167		
Harsh	68 (63.0)	40 (37.0)	108		
Husband's substance abuse					
None	None	57 (81.4)	13 (18.6)	17.09	0.017*
Huka/cigarette	Huka/Cigarette	88 (61.1)	56 (38.9)		
Alcohol	Alcohol	19 (51.4)	18 (48.6)		
Pan/Niswar	Pan/Naswar	93 (66.9)	46 (33.1)		
Sleeping pills	Sleeping pills	12 (63.2)	7 (36.8)		
Heroin	Heroin	6 (54.5)	5 (45.5)		
Gambling	Gambling/Satta	25 (56.8)	19 (43.2)		
Illegal criminal activities	Illegal/criminal activities	7 (43.8)	9 (56.2)		
Husband's controlling behavior					
No	202 (87.8)	28 (12.2)	230	72.59	0.001*
Yes	83 (48.8)	87 (51.2)	170		
Husband supports antenatal visits					
No	98 (55.7)	78 (44.3)	176	37.19	0.001*
Yes	187 (83.5)	37 (16.5)	224		

Values are n (%), with percentages calculated within HITS status column. HITS negative = score ≤ 10 ; HITS positive = score > 10 . *Statistically significant at $p < 0.05$.

Table 2A. Bivariate analysis of residence and patterns/types of violence during pregnancy

Violence item	Never	Rarely	Sometimes	Often	Frequently	p-value
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Hit/slapped/beaten by husband or in-laws						
Rural	27 (21.1)	39 (30.5)	28 (21.9)	13 (10.2)	21 (16.4)	0.587
Urban	30 (19.7)	38 (25.0)	31 (20.4)	17 (11.2)	36 (23.7)	
Peri-urban	29 (24.2)	24 (20.0)	28 (23.3)	17 (14.2)	22 (18.3)	
Total	86 (21.5)	101 (25.2)	87 (21.8)	47 (11.8)	79 (19.8)	
Felt insulted or degraded due to family's behavior						
Rural	61 (47.7)	23 (18.0)	16 (12.5)	13 (10.2)	15 (11.7)	0.009*
Urban	42 (27.6)	29 (19.1)	33 (21.7)	16 (10.5)	32 (21.1)	
Peri-urban	35 (29.2)	27 (22.5)	19 (15.8)	20 (16.7)	19 (15.8)	
Total	138 (34.5)	79 (19.8)	68 (17.0)	49 (12.2)	66 (16.5)	
Husband threatens harm or divorce						
Rural	57 (44.5)	18 (14.1)	25 (19.5)	14 (10.9)	14 (10.9)	0.013*
Urban	52 (34.2)	35 (23.0)	21 (13.8)	24 (15.8)	20 (13.2)	
Peri-urban	28 (23.3)	22 (18.3)	27 (22.5)	19 (15.8)	24 (20.0)	
Total	137 (34.2)	75 (18.8)	73 (18.2)	57 (14.2)	58 (14.5)	
Husband behaves aggressively or screams						
Rural	59 (46.1)	26 (20.3)	15 (11.7)	13 (10.2)	15 (11.7)	0.048*
Urban	45 (29.6)	28 (18.4)	28 (18.4)	24 (15.8)	27 (17.8)	
Peri-urban	33 (27.5)	24 (20.0)	27 (22.5)	16 (13.3)	20 (16.7)	
Total	137 (34.2)	78 (19.5)	70 (17.5)	53 (13.2)	62 (15.5)	
Family criticizes cooking/domestic work						
Rural	61 (47.7)	19 (14.8)	16 (12.5)	17 (13.3)	15 (11.7)	0.068
Urban	54 (35.5)	21 (13.8)	25 (16.4)	30 (19.7)	22 (14.5)	
Peri-urban	35 (29.2)	19 (15.8)	26 (21.7)	16 (13.3)	24 (20.0)	
Total	150 (37.5)	59 (14.8)	67 (16.8)	63 (15.8)	61 (15.2)	
Abused in front of relatives/friends						
Rural	60 (46.9)	21 (16.4)	15 (11.7)	20 (15.6)	12 (9.4)	0.160
Urban	48 (31.6)	23 (15.1)	26 (17.1)	30 (19.7)	25 (16.4)	
Peri-urban	42 (35.0)	19 (15.8)	19 (15.8)	17 (14.2)	23 (19.2)	
Total	150 (37.5)	63 (15.8)	60 (15.0)	67 (16.8)	60 (15.0)	
Restrictions on going out/social support						
Rural	64 (50.0)	21 (16.4)	20 (15.6)	11 (8.6)	12 (9.4)	0.011*
Urban	53 (34.9)	19 (12.5)	25 (16.4)	22 (14.5)	33 (21.7)	
Peri-urban	34 (28.3)	20 (16.7)	26 (21.7)	16 (13.3)	24 (20.0)	
Total	151 (37.8)	60 (15.0)	71 (17.8)	49 (12.2)	69 (17.2)	
Low self-esteem or anxiety while living with in-laws						
Rural	63 (49.2)	18 (14.1)	18 (14.1)	13 (10.2)	16 (12.5)	0.009*
Urban	53 (34.9)	21 (13.8)	22 (14.5)	33 (21.7)	23 (15.1)	
Peri-urban	31 (25.8)	24 (20.0)	26 (21.7)	20 (16.7)	19 (15.8)	
Total	147 (36.8)	63 (15.8)	66 (16.5)	66 (16.5)	58 (14.5)	
Freedom to make independent decisions						
Rural	62 (48.4)	26 (20.3)	15 (11.7)	14 (10.9)	11 (8.6)	0.001*
Urban	49 (32.2)	18 (11.8)	25 (16.4)	33 (21.7)	27 (17.8)	
Peri-urban	37 (30.8)	13 (10.8)	31 (25.8)	22 (18.3)	17 (14.2)	
Total	148 (37.0)	57 (14.2)	71 (17.8)	69 (17.2)	55 (13.8)	

Table 2B. Bivariate analysis of residence and patterns/types of violence during pregnancy

Violence type	No	Yes	p-value
Sexual violence:			
Rural	118 (92.2)	10 (7.8)	0.274
Urban	134 (88.2)	18 (11.8)	
Peri-urban	103 (85.8)	17 (14.2)	
Total	355 (88.8)	45 (11.2)	
Economic violence:			
Receives pocket money/household expenses without teasing			
Rural	51 (39.8)	77 (60.2)	0.102
Urban	69 (45.4)	83 (54.6)	
Peri-urban	64 (53.3)	56 (46.7)	
Total	184 (46.0)	216 (54.0)	
Restrictions on doing a job to earn livelihood			

Rural	85 (66.4)	43 (33.6)	0.132
Urban	83 (54.6)	69 (45.4)	
Peri-urban	71 (59.2)	49 (40.8)	
Total	239 (59.8)	161 (40.2)	

Values are n (%), with percentages calculated within each residence group. For total rows, percentages are calculated using N=400. P-values are from chi-square tests. Rows listed in the consistency notes should be checked against the source data before publication. *Statistically significant at $p < 0.05$.

Table 3. Bivariate analysis of HITS violence status and postnatal depression category (EPDS)

Variable	Violence negative n (%)	Violence positive n (%)	Total	χ^2	p-value
EPDS depression category (n=374)					
No depression	90 (33.8)	9 (8.3)	99	186.46	0.001*
Possible depression	153 (57.5)	13 (12)	166		
Probable depression/ Positive screen	23(8.6)	86(79.6)	109		

Values are n (%), with percentages calculated within each HITS category. EPDS categories: no depression, possible depression, and probable depression. *Statistically significant at $p < 0.05$.

DISCUSSION

The present study demonstrated that there is a high risk of violence during pregnancy with other socio-demographic, economic, and behavioral factors. The results of the present study indicated that many of the variables, including living in a lower household income, prior experience with violence, negative husband attitude score, substance abuse, high controlling behavior score, and deficiency of support for antenatal care, were independently associated with a positive HITS score. This agrees with previous studies which show a complex interrelatedness of the social and structural factors that shape women's lives, such as poverty, gender inequality, economic dependence, and unequal power in intimate relationships, which contribute to women's experiences of violence.^{6,12,13}

In the present study, although no significant association was found between residential areas (rural, urban, or peri-urban), the p-value was very close to significant. The previous research studies have reported that rural women are disproportionately more likely to be victims of violence than their urban counterparts. This gap is primarily driven by deeply entrenched traditional gender norms, lower educational attainment, restricted access to essential health services, and diminished women's autonomy in rural regions.¹⁴ The researchers have also reported that rural patriarchal structures often strictly limit female autonomy, leaving women dependent on male family members for economic support and limiting their decision-making power within households.¹⁵ More traditional gender norms are common in rural communities where women are less likely to be able to seek support or discuss abuse, which further exposes them to abuse. Also, the inverse link between education and violence corroborates other studies that have indicated that education increases women's awareness, decision-making power and access to social resources, and decreases vulnerability to abusive relationships.¹⁶

Economic disadvantage also was an important correlate of violence. Violent behavior was more prevalent among women in the lower-income households. Financial scarcity causes severe chronic stress and heightens daily tensions, directly contributing to family conflicts and intimate partner violence. Studies repeatedly show that poverty exacerbates the vulnerability of low-income women, trapping them in harmful situations while limiting their ability to seek safety.¹⁷ Similarly, previous exposure to violence remained significantly associated with violence during pregnancy, suggesting persistence of abusive relationships across the life course rather than isolated episodes.⁹ Studies consistently show that the psychological trauma, anxiety, and depression resulting from economic abuse (which traps a victim financially) can be just as severe as the trauma caused by physical or sexual violation.

It was found in the present study that behavioral characteristics of husbands also demonstrated important associations. These findings are in line with previous studies. Previous research studies have also reported that women who experience intimate partner violence (IPV) are at a significantly higher risk for co-occurring psychosocial burdens, including harsh attitudes, spousal substance use, and coercive, controlling behaviors of their husbands.¹⁸ These intersecting factors often form a cyclical pattern of trauma and volatility. Intoxication can impair judgment and lower inhibitions, while abusers may use substances to justify violence. This dynamic fuels emotional and physical abuse, deepening severe power imbalances in intimate relationships.¹⁹ Support for antenatal care was also linked to violence; however, this association was found to be quite weak, which indicates that support for health care use alone may not sufficiently capture the wider interpersonal relations in families. Furthermore, the analysis by residence revealed that psychological violence (insults, threats, aggressive behavior, social isolation, and restrictions in decision-making) had the highest associations with residence, while there were no significant differences in the associations found for economic and sexual violence. This phenomenon is known as the "equivalence of violence" or the "co-occurrence of abuse patterns," which demonstrates that different forms

of intimate partner violence (IPV), such as economic control and sexual assault, often carry a similarly devastating impact on a survivor's mental health, autonomy, and overall well-being.^{22,23} The result of this phenomenon corroborates earlier results on the prevalence of psychological violence, its co-occurrence with other types of violence, and its often-hidden character, which is seen as having a significant impact on women's mental health.^{4,14} Lastly, women who had been victims of pregnancy-related violence were more likely to screen positive for probable postpartum depression in this study. Extensive global research confirms that women who experience pregnancy-related intimate partner violence (IPV) are significantly more likely, up to 2 to 4 times more likely, to screen positive for probable postpartum depression (PPD) than those who do not experience violence.²⁰ Extensive public health and clinical research consistently validates the present study observation, demonstrating that intimate partner violence (IPV) and interpersonal abuse are primary drivers of maternal psychosocial morbidity, including depression, post-traumatic stress, and anxiety during pregnancy.²⁴ The results of the present study support an overall multifactorial continuum of violent behaviors during pregnancy and the links with poor maternal mental health outcomes.

CONCLUSION

The results of the present study indicated a significant level of experience of violence during pregnancy, pointing to the large number of women with reports of violence. The results indicated that violence was unequally distributed and that there are several sociodemographic and behavioral factors which influence IPV. Risk factors associated with violence during pregnancy included having a low level of education, low household income, husband substance abuse, and controlling behavior. Harsh attitudes of husbands and low educational status, previous experiences of violence, unemployment, low income, and living in rural areas are also risk factors associated with the occurrence of violence during pregnancy. The association of antenatal care support and violence was also significantly observed, but to a lesser extent compared to the other studied factors. These results suggest that the severity of IPV during pregnancy is closely linked to the individual, household and social characteristics. Furthermore, from the analysis of individual patterns of violence, it was evident that psychological violence was the most consistently reported across all the residential settings; however, rural women reported the highest number of repeated insults, threats, aggressive behavior, social restrictions and restrictions on independent decision-making. Other indicators, including physical and sexual violence, also showed significant differences by residential area, but not the economic indicators. The study also showed strong relationships between violence during pregnancy and postpartum depression. The mothers who were screened positive for violence had significant mental health problems and were significantly more likely to experience probable postpartum depression than mothers who did not report violence. In summary, the results confirmed that violent experiences during pregnancy continue to be a complex public health concern that is linked to negative pregnancy-related psychological consequences. The study offers significant local insights into the prevalence, associated factors and mental health impacts of violence during pregnancy and helps to develop a greater awareness of this significant maternal health challenge in Multan, Pakistan.

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