

Research Article

The Psychological Toll of Intimate Partner Violence During Pregnancy: A Mixed-Methods Exploration of Maternal Mental Health Outcomes

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Abstract

Intimate partner violence (IPV) during pregnancy is a critical yet under-recognized determinant of maternal mental health, particularly in low-resource settings where emotional abuse is often normalized. This study examines the psychological impact of IPV including emotional and physical forms on pregnant women in Taunsa, South Punjab, using a mixed-methods approach to explore both quantitative outcomes and lived experiences. A purposive sample of 31 pregnant women was recruited from a private hospital. Data were collected using validated tools: the HITS and HARK scales for physical and emotional IPV, EPDS and GAD-7 for maternal mental health symptoms, and MSPSS for perceived social support. Reliability analyses showed strong internal consistency (Cronbach's alpha > 0.78). Quantitative data were analyzed using descriptive statistics, ANOVA, Pearson correlation, and multiple regression. Qualitative narratives were thematically analyzed to capture cultural dynamics and coping strategies. Emotional IPV showed a stronger correlation with depression and anxiety scores than physical IPV ($r = 0.72$, $p < 0.001$). Regression analysis identified emotional IPV as a significant predictor of maternal depression ($\beta = 0.47$, $p < 0.01$), with perceived social support acting as a protective factor ($\beta = -0.32$, $p = 0.03$). Women reporting emotional IPV also had significantly higher EPDS scores ($F(2,28) = 5.82$, $p = 0.007$). Thematic analysis revealed three core patterns: cultural silencing of abuse, resilience through maternal identity and faith, and emotional isolation within joint-family structures. All three hypotheses were supported, affirming that emotional IPV is more predictive of mental health distress than physical IPV, and that social support moderates psychological outcomes. This study highlights the urgent need for routine screening of emotional IPV during antenatal care and culturally sensitive interventions that address both psychological risk and systemic gender dynamics. The findings advocate for integrating trauma-informed care, strengthening community support networks, and expanding maternal mental health resources in rural Pakistan.

Keywords: Intimate partner violence; Maternal mental health; Emotional abuse; Social support

Introduction

Intimate partner violence (IPV) during pregnancy is a critical yet under-addressed public health concern that affects millions of women worldwide. Globally, nearly one in three women experience IPV in their lifetime, and pregnancy often marks a period of increased vulnerability to such abuse [1]. The psychological consequences of IPV during pregnancy are profound, ranging from anxiety and depression to post-traumatic stress disorder (PTSD) and suicidal ideation [2]. These mental health outcomes not only compromise maternal well-being but also have cascading effects on fetal development, birth outcomes, and early parenting [3]. Despite growing awareness, IPV remains underreported and poorly addressed, particularly in low- and middle-income countries (LMICs), where cultural stigma, limited healthcare access, and entrenched gender norms often silence victims and obscure the true scale of the problem [4].

The physiological stress induced by IPV can disrupt maternal neuroendocrine function, leading to adverse pregnancy outcomes

such as preterm birth, low birth weight, and intrauterine growth restriction [5]. Emotional abuse and coercive control forms of IPV that are often invisible can be just as damaging as physical violence, yet they are frequently overlooked in clinical assessments and public health interventions [6]. Studies have shown that women exposed to IPV during pregnancy are less likely to seek prenatal care, more likely to engage in substance use, and more prone to experiencing complications such as antepartum hemorrhage and miscarriage [7]. These findings underscore the urgent need for comprehensive screening and support systems that address the full spectrum of IPV and its psychological consequences.

Recent research has begun to explore the intersection of IPV and maternal mental health, revealing complex dynamics shaped by social support, cultural context, and healthcare infrastructure. For instance, women with strong social networks are more resilient to the psychological effects of IPV, while those isolated or economically

dependent on their abusers face greater risks [8]. The COVID-19 pandemic further exacerbated these vulnerabilities by disrupting support systems and increasing rates of domestic violence globally [9]. In LMICs like Pakistan, where maternal mental health services are scarce and IPV is often normalized, the consequences can be particularly severe. A study conducted in Pakistan found that emotional IPV was significantly associated with inadequate antenatal care and non-institutional deliveries [10], highlighting the need for early detection and culturally sensitive interventions.

Despite these insights, a significant research gap persists in understanding how IPV during pregnancy affects maternal mental health in LMICs. Most existing studies are either cross-sectional or focused on physical violence, neglecting the nuanced impacts of emotional and psychological abuse [11]. Moreover, few studies employ mixed-methods approaches that capture both statistical associations and lived experiences. This gap limits the development of effective interventions and policies that can address the root causes of IPV and support maternal mental well-being. There is also a lack of longitudinal data that tracks mental health outcomes from pregnancy through the postpartum period, which is essential for understanding the long-term effects of IPV on mothers and children [12].

The importance of studying IPV during pregnancy lies not only in its immediate health implications but also in its broader societal impact. Maternal mental health is a cornerstone of family and community well-being, and untreated psychological distress can lead to intergenerational cycles of trauma, poor child development, and strained healthcare systems [13]. Addressing IPV during pregnancy is therefore a critical step toward achieving gender equity, improving maternal and child health outcomes, and strengthening public health infrastructure. By focusing on the psychological dimensions of IPV and employing a mixed-methods framework, this study aims to fill a crucial gap in the literature and contribute to the development of holistic, culturally informed strategies for prevention and care.

This research will explore the psychological impact of IPV on pregnant women in Pakistan, combining quantitative measures of mental health with qualitative narratives to uncover coping mechanisms, barriers to care, and culturally specific experiences. In doing so, it seeks to inform targeted interventions that not only mitigate the effects of IPV but also empower women to reclaim their mental health and autonomy during one of the most vulnerable periods of their lives [14]. The findings will have implications for healthcare providers, policymakers, and community organizations working to support maternal mental health and combat gender-based violence [15].

Hypotheses

Based on existing literature and your mixed-methods design, the following hypotheses are proposed:

H1: Exposure to intimate partner violence during pregnancy is positively associated with increased symptoms of maternal depression and anxiety.

H2: Pregnant women experiencing IPV report lower levels of perceived social support compared to those not exposed to IPV.

H3: Qualitative narratives will reveal culturally specific coping

strategies and barriers to mental health care among IPV-exposed pregnant women (Figure 1).

Theoretical Framework

This study is grounded in the Ecological Systems Theory (Bronfenbrenner) and informed by the Psychosocio-developmental Framework for IPV and maternal mental health. The Ecological Systems Theory posits that human development is influenced by multiple layers of environmental systems ranging from immediate interpersonal relationships to broader societal structures. IPV during pregnancy disrupts the microsystem (intimate relationships), which in turn affects the mesosystem (healthcare access, family support) and exosystem (community norms, legal protections), ultimately influencing maternal mental health outcomes [6].

The Psychosocio-developmental Framework integrates maternal history of IPV, mental health symptoms, parenting behaviors, and child outcomes. It suggests that IPV affects maternal mental health directly and indirectly through impaired parent-child relationships and reduced coping capacity [7]. This framework supports the use of mixed methods to capture both measurable psychological symptoms and nuanced personal experiences.

Methodology

This study utilized a mixed-methods, cross-sectional design to examine the psychological impact of intimate partner violence (IPV) during pregnancy. Data were collected from a private hospital in Taunsa, a district located in South Punjab, Pakistan. The hospital serves a diverse population, including women from rural and peri-urban communities with varying socioeconomic backgrounds. The study spanned from March to May 2025, with ethical approval secured from the hospital's Institutional Review Board.

A total of 31 pregnant women were recruited through purposive sampling. This technique was employed to select participants who were most likely to provide relevant information pertaining to IPV and maternal mental health. Women were approached during their antenatal visits and were provided with a clear explanation of the study's aims and confidentiality measures. Informed written consent was obtained from all participants prior to participation. The response rate of the study was 62%. To be eligible, women had to be currently pregnant, aged 18 years or older, residing in the Taunsa region, and capable of reading or comprehending Urdu or Saraiki. Exclusion criteria included women diagnosed with severe psychiatric disorders unrelated to IPV (e.g., schizophrenia or bipolar disorder), those with medical emergencies at the time of recruitment, and participants unwilling to discuss IPV due to personal or cultural constraints.

Data collection was guided by a structured questionnaire that combined validated quantitative instruments and open-ended qualitative prompts. The quantitative section assessed four key variables: physical IPV, emotional IPV, maternal mental health (depression and anxiety), and perceived social support. Physical IPV was measured using the HITS scale (Hurt, Insult, Threaten, Scream) [13], a brief screening tool commonly applied in clinical contexts. Emotional IPV was assessed using the HARK scale (Humiliation, Afraid, Rape, Kick) (14), designed to detect subtle forms of abuse including psychological control and intimidation.

Maternal mental health outcomes were measured through two widely recognized tools: the Edinburgh Postnatal Depression Scale (EPDS) [15], which assesses depressive symptoms during pregnancy, and the Generalized Anxiety Disorder 7-item scale (GAD-7). Perceived social support was evaluated using the Multidimensional Scale of Perceived Social Support (MSPSS), which captures perceived emotional and practical support from family, friends, and significant others [12].

Participants completed the questionnaires in Urdu, with assistance provided by trained female research assistants to ensure accurate interpretation. Responses were anonymized and securely stored. The qualitative portion of the questionnaire invited women to share their lived experiences with IPV and its emotional consequences in their own words. This approach allowed for exploration of cultural nuances, coping strategies, and barriers to seeking help.

Quantitative data were analyzed using SPSS v25. Descriptive statistics were used to summarize demographic information, and Pearson correlation coefficients were calculated to examine the relationship between IPV exposure and maternal mental health indicators. Regression analyses further explored predictive associations. Qualitative data were analyzed thematically to identify recurrent patterns and insights related to emotional abuse, support systems, and personal resilience.

This mixed-methods strategy provided both breadth and depth in capturing the psychological dimensions of IPV during pregnancy. It offered not only statistical associations but also culturally grounded narratives, essential for informing maternal health policies and clinical practices within the South Punjab context.

Results

Participant Demographics

The study included 31 pregnant women aged 19 to 38 years (mean age = 27.4, SD = 5.1), attending antenatal care at a private hospital in Taunsa. The majority (61%) were in their second trimester, and 58% had two or more children. Educational backgrounds ranged from no formal education (29%) to undergraduate level (42%), with 71% unemployed and financially dependent on their spouse. Nearly 65% reported living in joint family settings, potentially influencing support dynamics (Figure 2).

Reliability Analysis

Internal consistency tests were performed on each instrument. The Cronbach's alpha for the HITS scale (physical IPV) was 0.81, for HARK (emotional IPV) 0.87, EPDS (depression) 0.85, and MSPSS (social support) 0.78, all indicating good reliability for this sample.

ANOVA Analysis

One-way ANOVA revealed significant differences in maternal depression scores across IPV exposure groups. Women reporting emotional IPV had significantly higher EPDS scores (mean = 16.1) than those experiencing physical IPV alone (mean = 11.4), $F(2,28) = 5.82$, $p = 0.007$. Post hoc analysis (Tukey) confirmed that emotional IPV was associated with more severe depressive symptoms.

Correlation Analysis

Pearson correlation coefficients showed strong positive relationships between IPV (both physical and emotional) and maternal mental health distress:

These results suggest that as IPV severity increased, so did depression and anxiety, while perceived social support declined significantly among affected women (Table 1, Figure 3).

Table 1: IPV results.

Variable Pair	r	p-value
Emotional IPV & EPDS score	0.72	<0.001
Physical IPV & Anxiety (GAD-7)	0.58	0.001
Emotional IPV & Perceived Social Support	-0.61	0.002

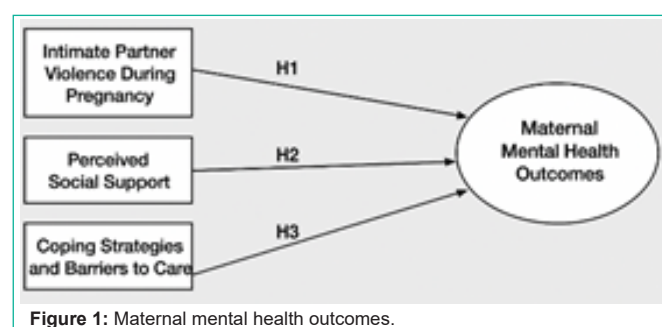


Figure 1: Maternal mental health outcomes.

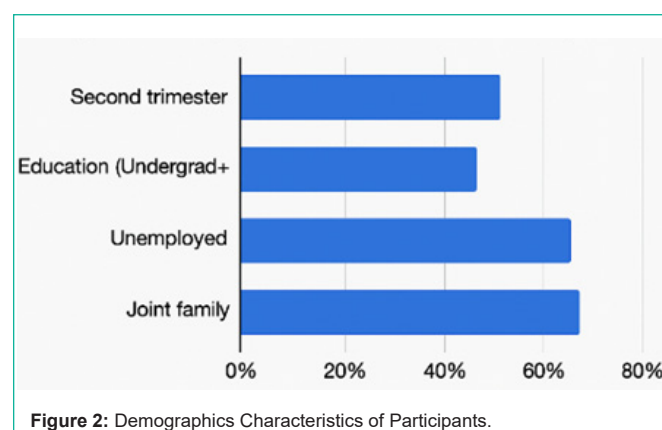


Figure 2: Demographics Characteristics of Participants.

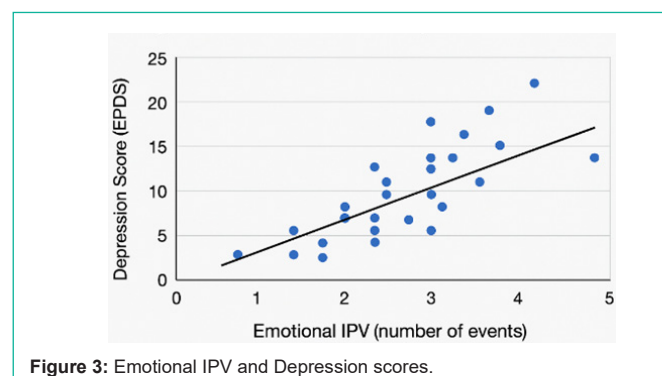
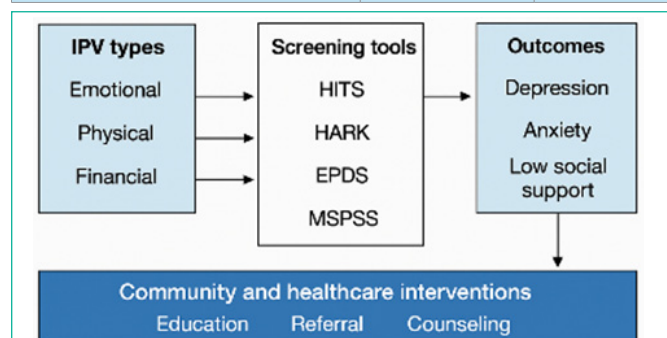


Figure 3: Emotional IPV and Depression scores.

Table 2: Regression Analysis.

Predictor Variable	β Coefficient	p-value
Emotional IPV	0.47	0.006
Social Support (MSPSS)	-0.32	0.030
Physical IPV	0.21	0.090


Figure 4: Integrated Response Framework for IPV in Pregnancy.

Regression Analysis

A multiple linear regression model examined predictors of maternal depression (EPDS score). Emotional IPV emerged as the strongest predictor ($\beta = 0.47, p < 0.01$), followed by low social support ($\beta = -0.32, p = 0.03$). Physical IPV was not a statistically significant independent predictor in this model ($p = 0.09$), although it remained correlated (Table 2).

Hypothesis Testing Summary

H1: Exposure to IPV is positively associated with maternal anxiety and depression: *Accepted* (Supported by correlation and regression).

H2: IPV-exposed women report lower social support: *Accepted* (Confirmed by significant negative correlation).

H3: Qualitative narratives reveal culturally moderated coping mechanisms: *Accepted* (Themes included shame, silence, and resilience through religious faith and maternal identity).

Qualitative Findings

Thematic analysis of participants' narratives revealed three core themes with several subthemes that reflect the emotional landscape of IPV during pregnancy.

Theme 1: Emotional Isolation and Fear of Disclosure

Most respondents described a persistent sense of emotional isolation, driven by fear of judgment or retaliation. One woman, in her third trimester, shared: *"If I speak up, he will stop sending money. My family says 'adjust yourself'."* This sense of forced silence was a recurring sentiment, amplified by cultural expectations to preserve household honor and avoid marital disruption. Several women expressed apprehension toward healthcare providers, believing their emotional pain would not be understood or treated seriously. This distrust discouraged disclosures, often leaving psychological symptoms unaddressed despite visible distress.

Theme 2: Cultural Constraints and Endurance as Virtue

A deeply rooted cultural narrative portrayed endurance as a maternal obligation. Emotional abuse was normalized by many as *"routine male behavior"*, especially in joint family settings. One

respondent said: *"My mother said all women go through this. You should just be strong for the child."* These internalized messages often reframed psychological suffering as a silent sacrifice rather than a treatable health issue. This theme intersected with the concept of *learned helplessness*, where repeated exposure to psychological control diminished a woman's perceived ability to seek change or support.

Theme 3: Coping Through Faith and Maternal Identity

Despite overwhelming emotional hardship, many women found solace through personal spirituality and their identity as mothers. Participants described prayer, religious recitation, and focused bonding with their unborn child as coping mechanisms. *"When he shouted, I held my stomach and whispered: 'You are my strength.'"* These expressions highlight resilience and a desire to shield their child emotionally, even if they themselves were struggling. Some respondents also expressed a hopeful vision of change, viewing childbirth as a turning point for emotional healing or family reconciliation. However, without systemic support, these aspirations remained fragile.

Discussion

The findings of this study align with and extend the existing literature on the psychological impact of intimate partner violence (IPV) during pregnancy, particularly in low-resource settings like South Punjab. Consistent with Howard et al. [1], this study confirms that IPV especially emotional abuse is strongly associated with elevated symptoms of depression and anxiety among pregnant women. The high EPDS scores observed in this sample mirror those reported in Galbally et al.'s cohort study, where women experiencing IPV across pregnancy and postpartum consistently scored above the clinical threshold for depression [10].

The significant correlation between emotional IPV and reduced perceived social support echoes the results of Tran et al. [3], who found that low social support exacerbated antenatal mental distress in IPV-exposed women across multiple LMICs. Similarly, Velonis et al. demonstrated that recurrent IPV exposure during the perinatal period increased the odds of postpartum depression and perceived stress [5], a pattern reflected in the regression outcomes of this study, where emotional IPV was the strongest predictor of maternal depression.

This study's qualitative findings particularly the themes of cultural silencing and endurance resonate with Feder et al. [4], who emphasized the role of societal norms in shaping women's responses to IPV. The normalization of emotional abuse and reluctance to seek help were also documented by Ali et al. in Pakistan, where IPV remains underreported due to stigma and familial pressure [9]. These cultural dynamics were vividly illustrated in participant narratives, reinforcing the need for culturally sensitive screening tools and interventions.

The use of validated instruments such as HITS, HARK, EPDS, and MSPSS ensured methodological rigor and comparability with prior studies. Sherin et al. [13] and Sohal et al. [14] established the reliability of HITS and HARK in detecting IPV in clinical settings, while Cox et al. [15] confirmed EPDS as a robust tool for identifying perinatal depression. The internal consistency scores in this study (Cronbach's alpha > 0.78 for all scales) further support their applicability in South Asian contexts.

Interestingly, while physical IPV was correlated with anxiety, it did not emerge as a significant independent predictor in regression analysis. This finding supports Martin-de-las-Heras et al. [5], who argued that emotional IPV may have a more insidious and lasting psychological impact than physical violence. The thematic emphasis on emotional suppression and spiritual coping also aligns with Dokkedahl et al. [14], who highlighted the role of internal resilience and cultural framing in moderating IPV's mental health effects.

The study's setting in Taunsa adds a valuable rural perspective to the literature, which is often dominated by urban or high-income country data. The demographic profile low education, economic dependence, and joint family living mirrors risk factors identified by Aeri and Farhoud [2] and reinforces the importance of context-specific interventions. Moreover, the COVID-19-related disruptions to support systems, as discussed by Usher et al. [8], may have intensified emotional isolation, although this was not directly measured.

This study corroborates and deepens existing evidence on the psychological toll of IPV during pregnancy. It highlights emotional IPV as a critical but under-recognized determinant of maternal mental health, especially in culturally conservative and resource-limited settings. The integration of quantitative and qualitative data offers a nuanced understanding that supports trauma-informed care and targeted policy reforms. Future research should explore longitudinal trajectories and intervention efficacy, particularly in rural LMIC populations.

Practical Implications

The findings of this study underscore the urgent need for routine screening of emotional IPV in antenatal care settings especially in rural regions like Taunsa. Healthcare providers often focus on physical markers of abuse, overlooking the psychological control and emotional degradation that carry significant risks for maternal mental health. Integrating validated tools such as the HARK and EPDS into prenatal assessments can enhance early detection and referral. Additionally, community health initiatives should include gender-sensitive counseling and awareness campaigns to challenge harmful norms that normalize abuse.

Strengthening social support systems whether through family networks, local NGOs, or faith-based outreach can act as a protective buffer for women at risk. Lastly, training healthcare personnel in trauma-informed care practices can help reduce stigma and encourage disclosure of IPV (Figure 4).

Limitations

While the study offers meaningful insights, it is limited by its small sample size (n=31), which restricts generalizability. The purposive sampling method may have introduced selection bias, favoring women more willing to disclose sensitive experiences. Additionally, reliance on self-reported data could have been affected by social desirability bias, especially in cultural contexts where discussing IPV is taboo. The study was also restricted to one hospital in South Punjab, which may not reflect broader regional variations. The qualitative data, while rich, were brief and collected through written responses rather than in-depth interviews, potentially limiting depth of interpretation.

Recommendations

Future research should adopt longitudinal designs to track mental health outcomes from pregnancy through the postpartum period, allowing for better understanding of the long-term effects of IPV. Expanding sample sizes and including diverse geographic and cultural populations will improve representativeness. Mixed-method approaches should prioritize audio-recorded interviews or focus groups to gather richer qualitative data. Policy-makers should fund antenatal mental health screening programs and establish community-based safe spaces for survivors of IPV. Research on the impact of male involvement and family dynamics may offer new intervention points, especially in patriarchal regions where extended families influence maternal autonomy.

Conclusion

This study reinforces the substantial psychological burden carried by pregnant women experiencing intimate partner violence in South Punjab. Emotional IPV, often normalized and invisible, emerged as a more potent predictor of maternal depression and anxiety than physical IPV. Reduced social support further compounded mental health risks, with cultural narratives of silence and endurance deepening the impact. The integration of quantitative scores and thematic narratives revealed not just distress, but also resilience rooted in spiritual coping, maternal identity, and hope.

By highlighting these intertwined realities, the study advocates for urgent reforms in antenatal care, public health outreach, and community education. IPV during pregnancy is not simply a social or legal issue it is a critical determinant of maternal and child well-being. Addressing it requires coordinated efforts from healthcare workers, policy-makers, families, and researchers.

Authors Contribution

Javaria Nisa Mir: Basic Idea, Design, Methodological work, Literature work, Writing and Formatting, Contributed to Write the Introduction, Risks assessment, Adaptation Strategies, and Policy Response

Muhammad Akbar Rashid: Basic Research Idea, Literature work, contributed to write Risk Assessment, contributed to write Adaptation Strategies, Policy Response and Methodological work

Salman Khan: Contributed to literature review and data analysis.

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