

Intimate Partner Violence during Pregnancy in Asia: Prevalence, Associated Factors, and Outcomes – A Review of Literature and Meta-Analysis with Special Reference to Sri Lanka

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Review Article

Abstract

Introduction: Intimate partner violence (IPV) during pregnancy is an important yet under-detected determinant of maternal and foetal morbidity in many Asian settings. This review aims to synthesise evidence on the prevalence, associated factors, and pregnancy outcomes of IPV during pregnancy in Asia, with special reference to Sri Lanka, to inform policy and programme responses.

Methods: A narrative review was conducted using PubMed, Google Scholar, Lens.org, Dimensions, and relevant grey literature. English-language publications (2000-2025) from Asian settings were screened for evidence on IPV during pregnancy. Eligible studies were synthesised thematically across prevalence, associated factors, and outcomes. Where prevalence estimates were sufficiently comparable, pooled prevalence was calculated in RStudio using a random-effects generalised linear mixed model (logit transformation) with 95% confidence intervals, and heterogeneity was assessed using I^2 and τ^2 .

Results: IPV during pregnancy prevalence ranged from 1.6% to 41.0% across Asia, while Sri Lankan estimates ranged from 4.7% to 15.9%. In the meta-analysis of 23 studies ($n=52,072$ pregnancies), the overall prevalence in Asia was 14.4% (95% CI 10.3-19.9), with extremely high heterogeneity and a wide prediction interval (2%-55%). Subgroup pooling yielded 8.8% (95% CI, 3.6-19.9) for Sri Lanka and 15.1% (95% CI, 10.6-21.2) for other Asian countries; the between-subgroup difference was not statistically significant ($p=0.2449$). Psychological violence was reported more frequently than physical or sexual violence. Commonly identified correlates included low maternal education, younger age, poverty, limited partner support, partner alcohol use, and traditional gender norms. IPV exposure was associated with low birth weight, preterm delivery, miscarriage, maternal depression, and anaemia. Despite Sri Lanka's strong maternal health infrastructure, responses to IPV during pregnancy remain fragmented.

Conclusion: IPV during pregnancy is prevalent and preventable. Sri Lanka should strengthen routine identification and referral within maternal health services, expand longitudinal and qualitative research, and advance intersectoral frameworks that prioritise survivor support.

Key Words: Intimate Partner Violence, Pregnancy, Maternal Health, Determinants, Pregnancy Outcomes, Asia and Sri Lanka

Introduction

Intimate Partner Violence (IPV) refers to behaviour within an intimate relationship that causes physical, sexual or psychological harm, including acts of physical aggression, sexual violence, and psychological abuse and a multitude of controlling behaviours [1]. This definition covers violence by both current and former spouses and partners. IPV often leads to significant consequences, including physical injuries, chronic health conditions, psychological trauma, and even fatalities, thereby imposing a significant public health issue and an economic burden on the country [2]. Current research suggests that the negative effects of abuse can persist long after the violence has ceased. The more severe the abuse is, the greater its impact on a woman's physical and mental health, which is cumulative over time, with multiple episodes of abuse [3]. The World Health Organisation (WHO) reports that IPV is among the most common forms of violence against women, with an estimated 26% of women worldwide experiencing physical or sexual violence from a current or former male intimate partner at least once in their lifetime [4].

Pregnancy is a vulnerable period marked by significant physical, emotional, and economic strains that may increase a woman's risk of IPV [5]. Globally, IPV affects an estimated 6-16% of pregnant women [6]. A recent meta-analysis found an overall prevalence of 34% during pregnancy and identified multiple risk factors unique to this period [6]. The physical, emotional, and social practices and behaviours associated with pregnancy can increase relationship stress, potentially triggering the onset or escalation of abusive behaviours by their partners, contributing to increased IPV during the pregnancy [7].

IPV during pregnancy is linked to numerous serious health risks for both mother and child, including low birth weight, preterm birth, small-for-gestational-age infants, perinatal death, poor maternal mental health, and late and incomplete prenatal care. A particularly alarming feature of IPV during pregnancy is that abusers target the woman's abdomen, endangering both the mother and fetus [8]. Although most studies on IPV during pregnancy capture physical violence, sexual and emotional abuse are also prevalent and have significant harmful effects on their health and well-being and that of their unborn foetuses [7].

Despite the growing global literature on IPV during pregnancy, evidence from Asia, particularly from South Asian countries such as Sri Lanka, remains limited. Only a small number of studies in Sri Lanka have examined IPV during pregnancy, and these are largely cross-sectional and descriptive, offering minimal exploration of causal pathways, psychosocial determinants, or pregnancy outcomes [9-13]. The available evidence indicates considerable underreporting due to stigma, cultural norms of family privacy, and limited screening practices within maternal health services [12]. Given these research and programmatic gaps, a comprehensive synthesis of existing evidence is essential to understand the magnitude, associated factors, and consequences of IPV during pregnancy in the broader Asian region, while situating Sri Lanka's experience within this regional context. Accordingly, this review aims to consolidate regional findings and provide an in-depth analysis of the Sri Lankan situation to inform research, policy, and programme responses that strengthen the national reproductive health agenda.

Methods

This review employed an integrated evidence synthesis approach to summarise the available evidence on IPV during pregnancy, with particular attention to Sri Lanka. A thematic narrative synthesis was used to interpret findings across diverse study designs and data sources, enabling a comprehensive understanding of prevalence patterns, associated factors, and pregnancy outcomes within their social and cultural contexts. Where prevalence estimates were sufficiently comparable across studies, quantitative pooling was undertaken using a proportion meta-analysis approach. This combined approach provides both an interpretative synthesis and a robust summary estimate of IPV during pregnancy in Asia.

A systematic search of peer-reviewed and grey literature was conducted across multiple databases, including PubMed, Google Scholar, Lens.org, and Dimensions (Figure 01). To enhance contextual depth and national relevance, supplementary sources, including Demographic and Health Surveys (DHS), reports from the Family Health Bureau (FHB), and other government or NGO publications, were reviewed. Grey literature, including unpublished reports and institutional studies, was also considered. The search strategy employed Boolean operators and combined terms such as ("Intimate Partner Violence" OR "Domestic Violence") AND ("Pregnancy" OR "Maternal Outcomes") AND ("Asia" OR "Sri Lanka").

Studies were eligible for inclusion if they met the following criteria: (1) conducted in Sri Lanka or in Asia in general. (2) addressed IPV or domestic violence during pregnancy; (3) used either qualitative or quantitative designs; and (4) were published in English between 2000 and 2025. National survey

reports and institutional publications were also included where they offered primary data relevant to the review's objectives. Excluded were opinion pieces, reviews, editorials, single-case reports, and any studies not directly addressing IPV during pregnancy.

The initial database and supplementary source search yielded a total of 828 records. After removing duplicates, 379 unique articles remained. Following a preliminary screening of titles and abstracts, 21 articles were retained for full-text review based on relevance to the inclusion criteria. An additional six eligible articles were identified through citation tracking and review of the reference lists. In total, 27 studies were selected and included in the final narrative synthesis.

A thematic analysis framework was employed to guide both data extraction and synthesis. The extracted data were organised across three overarching analytical domains. The first domain addressed prevalence, which included assessments of overall IPV during pregnancy as well as its specific forms: psychological violence, physical violence, and sexual violence. The second domain examined associated factors, comprising socio-demographic and economic characteristics, reproductive and biological determinants, partner-related and behavioural influences, and marital and psychosocial contributors. The third domain focused on pregnancy outcomes, categorised into loss of pregnancy, foetal and neonatal consequences, maternal health and clinical complications, and psychological and behavioural effects. The synthesis process involved iterative reading, coding, and interpretation of findings across the selected studies, followed by thematic clustering.

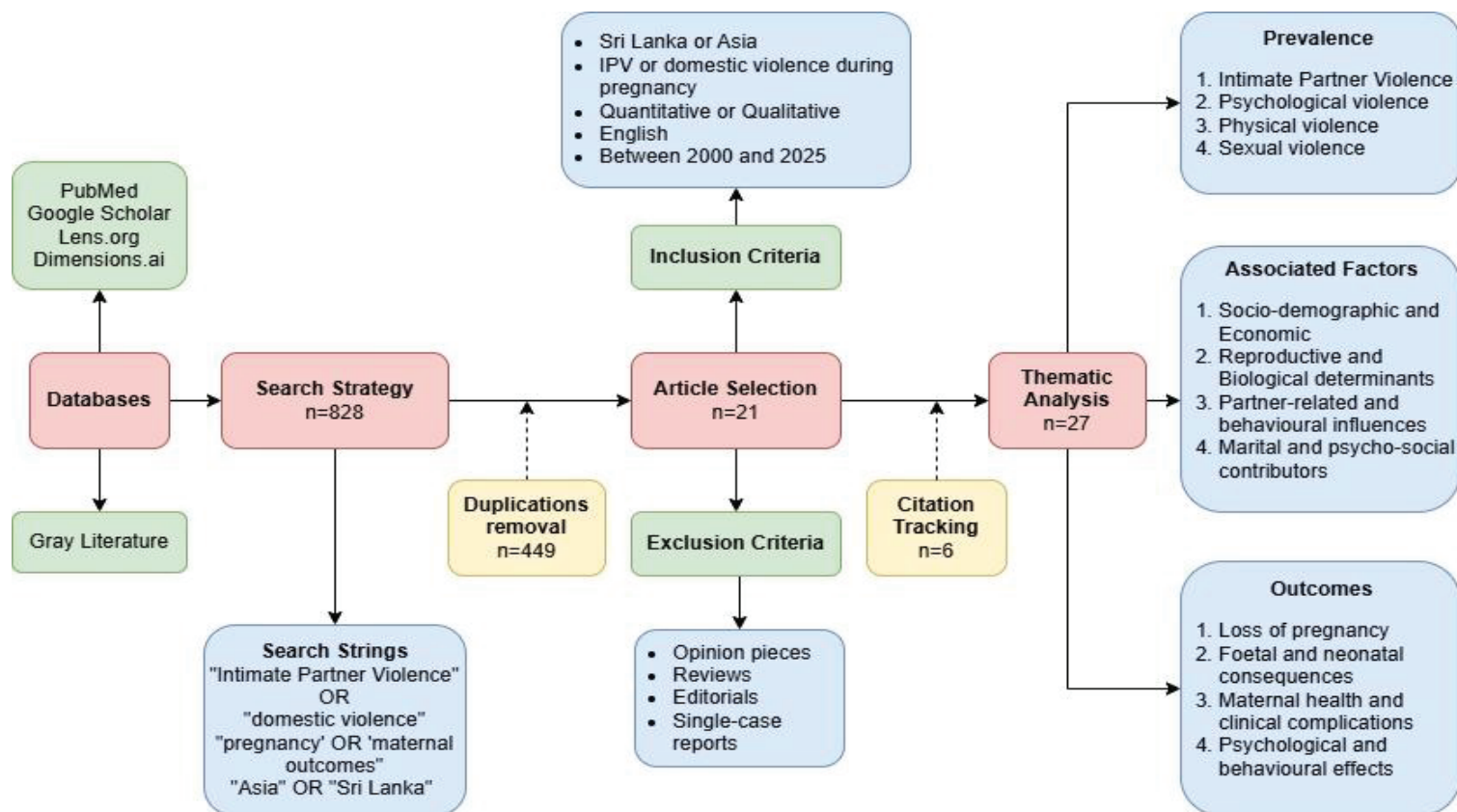


Figure 1. Methodological Framework of the Narrative Review on Intimate Partner Violence during Pregnancy in Asia and Sri Lanka with special focus to Sri Lanka.

The primary synthesis estimated the pooled prevalence of IPV during the current pregnancy using a random-effects generalised linear mixed model (GLMM) with a logit link. Individual-study confidence intervals were computed with Clopper-Pearson; between-study variance τ^2 was estimated by maximum likelihood. Heterogeneity was estimated using I^2 (with 95% CIs), τ^2 , and the Q test. Because true prevalence plausibly varies across countries, settings, instruments, and timing of assessment, the prediction interval (PI) was reported to convey the range expected for a new, similar study.

Limitations

Several limitations should be considered. First, as a narrative review, no formal quality or risk-of-bias appraisal was undertaken; consequently, confidence in individual study estimates varies. Second, restricting inclusion to English-language sources may have introduced a language bias and excluded relevant evidence published in Sinhala, Tamil, or other Asian languages. Third, substantial heterogeneity in IPV definitions, measurement tools, sampling strategies, and the timing of assessment limited comparability and constrained quantitative synthesis. Additionally, Sri Lankan evidence was largely based on

cross-sectional, clinic-based studies, which reduced national representativeness and generalizability. Finally, the limited availability of longitudinal studies restricted causal inference regarding maternal and perinatal outcomes, and the inclusion of grey literature with variable methodological reporting may have introduced reporting bias.

Results
Intimate Partner Violence during Pregnancy

The prevalence of intimate partner violence (IPV) during pregnancy demonstrates marked variability across Asian countries. As summarised in Table 1, the lifetime prevalence of IPV among women in Asian studies ranges from 18.3% in Sri Lanka [9] to 52.8% in Bangladesh [14], while the current pregnancy prevalence varies from as low as 1.6% in Oman [15] to as high as 41% in Pakistan [16]. This wide variation likely reflects differences in study design, measurement tools, socio-cultural contexts, and women's willingness to disclose violence during pregnancy. Overall, the evidence reveals that South Asian countries, including Sri Lanka, Bangladesh, Nepal, and Pakistan, tend to report higher IPV prevalence during pregnancy than East or West Asian counterparts.

Table 1. Study characteristics and reported prevalence of intimate partner violence (IPV) during the current pregnancy in Asian countries

Country	Author/Study year	Methods	Prevalence
1. Sri Lanka	Muzrif <i>et al.</i> , 2018 [13]	Clinic-based cross-sectional; 1,375 rural/urban & 800 tea-estate women (6-40 wks)	15.9%
2. Sri Lanka	Moonesinghe <i>et al.</i> , 2004 [9]	Clinic-based cross-sectional; 1,200 women (15-49 yrs)	04.7%
3. India	Garg <i>et al.</i> , 2020 [17]	Community prospective observational; 1,500 women (<20 wks)	29.7%
4. India	Jungari and Chinchor, 2022 [18]	Community cross-sectional; 550 women who gave birth in last 2 yrs	15.6%

(Continued)

	Country	Author/Study year	Methods	Prevalence
5.	India	Nath <i>et al.</i> , 2021 [19]	Hospital cross-sectional; 350 women >18 yrs (<24 wks)	03.7%
6.	India	Jain <i>et al.</i> , 2017 [20]	Hospital prospective observational; 400 women (20-28 wks)	12.3%
7.	India	Devineni <i>et al.</i> , 2018 [21]	Hospital prospective; 200 randomly selected admitted pregnant women	28.9%
8.	India	Samal and Poornesh, 2022 [22]	OPD cross-sectional; 200 women at 1st antenatal visit	06.5%
9.	India	Das <i>et al.</i> , 2013 [23]	Community cross-sectional; 2,139 women with identified births	15%
10.	Afghanistan/ Iran	Dadras <i>et al.</i> , 2021 [24]	Community cross-sectional; 424 women (18-44 yrs)	15.3%
11.	Bangladesh	Islam <i>et al.</i> , 2021 [14]	Community cross-sectional; 424 women (15-49 yrs), ≤6 months post-partum	35.2%
12.	Nepal	Sharma and Kaphle, 2023 [25]	Community cross-sectional; 263 post-partum women	30.0%
13.	Nepal	Koirala, 2022 [26]	Hospital cross-sectional; 220 post-natal women (15-45 yrs)	32.7%
14.	Pakistan	Shahmir <i>et al.</i> , 2023 [16]	Hospital prospective descriptive longitudinal; 105 women (15-49 yrs)	41.0%
15.	China	Wang <i>et al.</i> , 2017 [27]	Systematic literature review; 30,665 women during pregnancy/≤1 yr post-partum	07.7%
16.	Vietnam	Hoang <i>et al.</i> , 2016 [28]	Community prospective cohort; 1,276 women (<24 wks)	35.4%
17.	Japan	Maruyama <i>et al.</i> , 2023 [29]	Secondary analysis of cross-sectional data; 1,230 women (>34 wks)	13.4%
18.	Thailand	Boonnate <i>et al.</i> , 2015 [30]	Hospital cross-sectional; 230 women >18 yrs (32-40 wks)	11.7%
19.	Myanmar	Win Thuzar <i>et al.</i> , 2016 [31]	Secondary cross-sectional analysis; 1,045 ever-pregnant women (18-49 yrs)	06.4%
20.	South Korea	Lee <i>et al.</i> , 2022 [32]	Community cross-sectional; 5,953 pregnant women/mothers of young children	07.6%
21.	Jordan	Sanaa Abujilban <i>et al.</i> , 2022 [33]	Hospital cross-sectional; 223 antenatal women	30.0%
22.	Oman	Al Shidhani <i>et al.</i> , 2020 [15]	Hospital prospective observational; 960 women (mean age 30.3 ± 5.4 yrs)	01.6 %
23.	Hong Kong	Chen <i>et al.</i> , 2022 [34]	Clinic-based longitudinal; 340 women at 1st ANC visit (>18 yrs)	13.5%

Note: Prevalence values are reported as presented in the original studies and may not be directly comparable due to differences in IPV definitions, measurement tools, recall periods, gestational timing of assessment, and study populations. "During pregnancy" refers to IPV reported during the current pregnancy (or the most recent pregnancy where specified). ANC=antenatal care; OPD=outpatient department; wks=weeks; yrs=years; P=Prevalence in Percentage.

In Sri Lanka, two key studies have reported the prevalence of IPV during pregnancy. Muzrif *et al.* (2018) found a lifetime prevalence of 38.6% and a current pregnancy prevalence of 15.9% among women from rural, urban, and tea-estate sectors [13]. An earlier study by Moonesinghe *et al.* (2002) reported comparatively lower figures, with 18.3% lifetime and 4.7% current pregnancy prevalence among clinic-attending women

aged 15-49 years [9]. When positioned within the broader Asian context, Sri Lanka's prevalence estimates are moderate relative to other countries in the region. They are lower than those reported in Bangladesh (35.2%), Pakistan (41.0%), and Vietnam (35.4%), but higher than the rates found in China (7.7%), South Korea (7.6%), Thailand (11.7%), Oman (1.6%), and Myanmar (6.4%). India exhibits a broad range (3.7% - 29.7%)

across studies, with some estimates closely comparable to those of Sri Lanka.

For the pooled prevalence synthesis, 23 studies were included, comprising 52,072 pregnancies and 5,448 IPV events. Using a random-effects meta-analysis of proportions (logit scale), the overall pooled prevalence of IPV during the current pregnancy was 14.4% (95% CI 10.3-19.9). Between-study heterogeneity was extremely high ($I^2=99.1\%$, $\tau^2=0.8856$ on the logit scale; $Q=2357.19$, $df=22$,

$p<0.001$), indicating substantial variability in prevalence estimates across settings and study designs beyond chance. The prediction interval (2%-55%) suggests that the prevalence in a new, comparable Asian study could plausibly fall anywhere within this wide range (Figure 2). In subgroup analyses, the pooled prevalence was 8.8% (95% CI 3.6-19.9) for Sri Lanka and 15.1% (95% CI 10.6-21.2) for other Asian countries; however, the difference between subgroups was not statistically significant ($p=0.2449$).

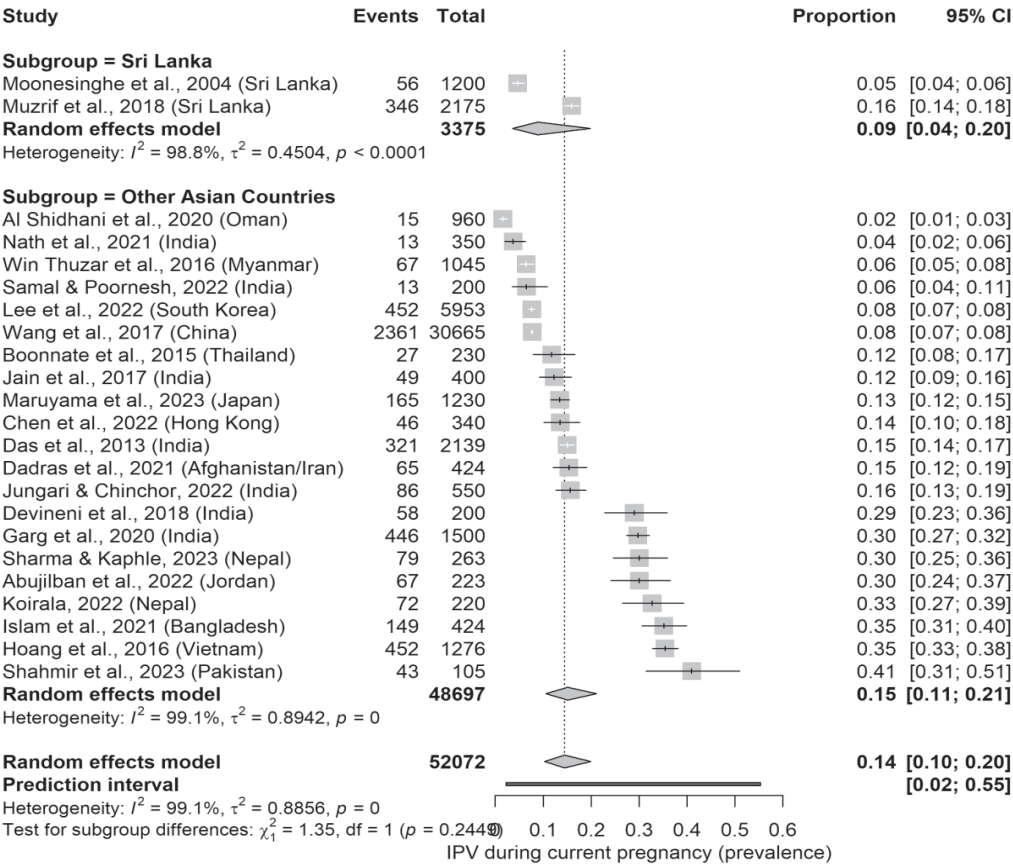


Figure 2. Prevalence of intimate partner violence during the current pregnancy across Asian studies, with a Sri Lanka subgroup comparison.

Note: Each row represents one study and shows the proportion of women reporting intimate partner violence (IPV) during the current pregnancy. The square indicates the study's estimate, and the horizontal line shows the range of uncertainty around that estimate (95% confidence interval). The diamond at the end of each subgroup summarises the overall estimate for that subgroup, and the final diamond summarises the overall estimate across all included studies, using a method that accounts for differences between studies. The vertical dotted line marks the overall pooled estimate. The prediction interval (shown at the bottom) indicates the range in which the prevalence might plausibly fall in a new, similar study conducted in the region. Studies are ordered from those with the lowest to those with the highest prevalence within each subgroup.

Psychological Violence during Pregnancy

Psychological violence, encompassing verbal abuse, humiliation, intimidation, and controlling behaviours, emerged as a significant yet often under-recognised component of IPV during pregnancy [10]. The reported prevalence of psychological violence varies widely from 1.0% in a hospital-based outpatient study in India [22] to 65.0% in a community-based study in Bangladesh [14] (Table 2).

In South Asia, the burden of psychological violence appears particularly noticeable. The Bangladeshi study by Md Jahirul Islam *et al.* (2016) reported an exceptionally high prevalence (65.0%) among postpartum women, highlighting the pervasive nature of emotional abuse. Nepal's hospital-based study [26] also reported a high rate (30.9%) among postnatal women, while studies from India documented comparatively

lower levels, ranging from 1.0% to 12.3%, depending on setting and gestational stage. In contrast, studies from East and West Asia reported generally lower prevalence rates. Psychological violence was reported at 4.3% in Thailand, 5.6% in South Korea, and 25.9% in Saudi Arabia. Although these figures are lower than those seen in South Asia, they nonetheless indicate that emotional abuse during pregnancy is a region-wide concern.

Physical Violence during Pregnancy

Physical violence represents one of the most visible and injurious forms of IPV during pregnancy, often resulting in direct harm to both the woman and her fetus [10]. As summarised in Table 3, the reported prevalence of physical violence during pregnancy across Asian studies ranges from 2.0% to 39.0%, indicating considerable variation across countries and study settings.

Table 2. Prevalence of Psychological Violence during Pregnancy among Women in Selected Asian Countries: Evidence from Hospital- and Community-Based Studies

Country	Author/Study year	Methods	Prevalence
1. India	Jain <i>et al.</i> , 2017 [20]	Hospital prospective observational; 400 women (20-28 wks)	12.3%
2. India	Samal and Poornesh, 2022 [22]	OPD cross-sectional; 200 women at 1st antenatal visit	01.0%
3. India	Das <i>et al.</i> , 2013 [23]	Community cross-sectional; 2,139 women with identified births	08.0%
4. Bangladesh	Islam <i>et al.</i> , 2021 [14]	Community cross-sectional; 424 women (15-49 yrs), ≤6 months post-partum	65.0%
5. Nepal	Koirala, 2022 [26]	Hospital cross-sectional; 220 post-natal women (15-45 yrs)	30.9%
6. Thailand	Boonnate <i>et al.</i> , 2015 [30]	Hospital cross-sectional; 230 women >18 yrs (32-40 wks)	04.3%
7. South Korea	Lee <i>et al.</i> , 2022 [32]	Community cross-sectional; 5,953 pregnant women/mothers of young children	5.6%
8. Saudi Arabia	Al Taifi. <i>et al.</i> , 2021 [35]	Community cross-sectional; 1,330 pregnant women at any gestational age	25.9%

Note: P indicates the percentage of women reporting psychological IPV during pregnancy, as defined in each original study. Estimates may not be directly comparable because studies differed in the operational definition of psychological violence, measurement instruments, recall period, timing of assessment (antenatal vs postnatal), and sampling frame (hospital/OPD vs community). OPD=outpatient department; wks=weeks; yrs=years.

Table 3. Prevalence of Physical Violence during Pregnancy among Women in Selected Asian Countries: Evidence from Hospital- and Community-Based Studies

Country	Author/Study year	Methods	Prevalence
1. Sri Lanka	Moonesinghe <i>et al.</i> , 2004 [9]	Clinic-based cross-sectional; 1,200 women (15-49 yrs)	04.7%
2. India	Jain <i>et al.</i> , 2017 [20]	Hospital prospective observational; 400 women (20-28 wks)	10.0%
3. India	Samal and Poornesh, 2022 [22]	OPD cross-sectional; 200 women at 1st antenatal visit	2.0%
4. India	Das <i>et al.</i> , 2013 [23]	Community cross-sectional; 2,139 women with identified births	12.0%
5. Bangladesh	Ferdos & Rahman, 2017 [37]	Hospital-based cross-sectional; 400 randomly selected women in postnatal wards	39.0%
6. Nepal	Koirala, 2022 [26]	Hospital cross-sectional; 220 post-natal women (15-45 yrs)	28.6%
7. Thailand	Boonnate <i>et al.</i> , 2015 [30]	Hospital cross-sectional; 230 women >18 yrs (32-40 wks)	3.5%
8. Saudi Arabia	Al Taifi <i>et al.</i> , 2021 [35]	Community-Based Cross-Sectional; 1,330 women at any gestational age	5.4%

Note: P=Percentage of women reporting physical IPV during pregnancy, as defined in each original study. OPD=outpatient department; wks=weeks; yrs=years.

The highest prevalence was reported in Bangladesh (39.0%), based on a hospital-based study among postpartum women [37], followed by Nepal (28.6%) [26]. In contrast, comparatively lower rates were observed in Thailand (3.5%), Saudi Arabia (5.4%), and certain Indian studies (2.0%-12.0%). The Sri Lankan evidence revealed that approximately one in ten pregnant women experienced physical violence (36), underscoring a substantial burden even within a context where such acts are socially condemned and often underreported. Studies from India demonstrate a wide range of estimates from 2.0% in outpatient antenatal settings [22] to 12.0% in community-based surveys [23], suggesting that prevalence may be higher when data are collected outside clinical environments, where women might feel safer to disclose abuse. Despite these variations, physical violence remains a persistent and serious public health concern, contributing to maternal injuries, pregnancy complications, and adverse neonatal outcomes.

Sexual Violence during Pregnancy

Sexual violence, though often less frequently disclosed than other forms of IPV, represents one of the most severe violations of women's bodily autonomy during pregnancy [10]. As summarised in Table 4, the prevalence of sexual violence during pregnancy among Asian countries varies considerably, ranging from 0.5% to 26.3%.

The highest levels were observed in Bangladesh, where community- and hospital-based studies reported prevalence rates of 18.5% (14) and 26.3% [37]. Similarly, a Nepalese study [26] documented a high prevalence of 22.7%, indicating that sexual violence during pregnancy is significant in the pockets of South Asia.

In contrast, studies from India and Sri Lanka reported substantially lower prevalence rates, typically below 3%. In Sri Lanka, the only available study by Moonesinghe *et al.* (2002) recorded a 2.7% prevalence among

clinic-attending women aged 15-49 years, while Indian estimates ranged between 0.5% and 2.0% across different study settings [20,22,23]. Thailand, representing Southeast Asia, reported a prevalence of 3.9%, which is somewhat higher than most Indian estimates but still considerably lower than the rates in Bangladesh and Nepal. In Sri Lanka, while available data suggest lower prevalence, cultural taboos and social silence around marital sexual coercion likely contribute to underestimation [38].

Factors Associated with IPV

The factors associated with IPV during pregnancy identified across Asian studies demonstrate a multifaceted interplay between socio-demographic, economic, marital, behavioural, and psychosocial factors (Table 5). Although the strength and direction of these associations vary by setting, several common patterns emerge, with younger age, low education, and low

socioeconomic status appearing as the most consistently reported correlates of IPV during pregnancy [6].

Evidence from Sri Lanka indicates that IPV is rooted in both structural and relationship-level vulnerabilities. Muzrif *et al.* (2018) observed that younger age, low educational attainment, low household income, and belonging to Muslim ethnic groups were associated with higher IPV risk. Moonesinghe *et al.* (2002) further emphasised that early marriage (below 19 years), limited education, low socioeconomic status, and patriarchal household dynamics such as husbands being the primary decision-makers significantly increased women's exposure to IPV. Additional risk factors included alcohol use by partners, poor sexual relationships, and nuclear family settings, highlighting the combined effects of economic strain and intimate relationship stressors.

Table 4. Prevalence of Sexual Violence during pregnancy in selected Asian settings

Country	Author/Study year	Methods	Prevalence
1. Sri Lanka	Moonesinghe <i>et al.</i> , 2004 [9]	Clinic-based cross-sectional; 1,200 women (15-49 yrs)	2.7%
2. India	Jain <i>et al.</i> , 2017 [20]	Hospital prospective observational; 400 women (20-28 wks)	1.8%
3. India	Samal and Poornesh, 2022 [22]	OPD cross-sectional; 200 women at 1st antenatal visit	0.5%
4. India	Das <i>et al.</i> , 2013 [23]	Community cross-sectional; 2,139 women with identified births	2.0%
5. Bangladesh	Islam <i>et al.</i> , 2021 [14]	Community cross-sectional; 424 women (15-49 yrs), ≤6 months post-partum	18.5%
6. Bangladesh	Ferdos & Rahman, 2017 [37]	Hospital-based cross-sectional; 400 randomly selected women in postnatal wards	26.3%
7. Nepal	Koirala, 2022 [26]	Hospital cross-sectional; 220 post-natal women (15-45 yrs)	22.7%
8. Thailand	Boonnate <i>et al.</i> , 2015 [30]	Hospital cross-sectional; 230 women >18 yrs (32-40 wks)	3.9%
9. Saudi Arabia	Al Tifi <i>et al.</i> , 2021 [35]	Community-Based Cross-Sectional; 1,330 women at any gestational age	13.5%

Note: P indicates the percentage of women reporting sexual IPV during pregnancy, as defined in each original study (e.g., forced sex or sexual acts through coercion). OPD=outpatient department; wks=weeks; yrs=years.

Across the non-Sri Lankan Asian studies, factors associated with IPV during pregnancy clustered most consistently around structural disadvantage. Lower educational attainment, lower household income and broader socioeconomic deprivation emerged repeatedly as correlates of IPV risk across diverse settings, spanning South Asia, West Asia and East Asia, suggesting that economic insecurity and constrained access to resources may heighten women’s vulnerability during pregnancy[16,18-20,22,24,25,29,35]. Several studies also pointed to contextual social stratifiers; including caste/ethnicity and gender preference norms as shaping IPV risk, indicating that social position and gendered expectations can intersect with economic hardship to intensify exposure to violence in some settings [16,18].

A second pattern related to reproductive and life-course vulnerability, where IPV was more frequently reported among women with higher parity/multigravida status, and where maternal age showed context-specific associations (with younger or older age associated de-

pending on setting) [19,20,24,29,35]. In addition, partner characteristics and behaviours were prominent: partner alcohol/substance use and related behavioural risks were recurrently associated with IPV during pregnancy across multiple countries, reinforcing the role of partner risk environments alongside women’s socioeconomic position [18,20,22,25,30].

Finally, the evidence highlighted relationship and psychosocial pathways. Indicators of reduced relationship support (e.g., low family support), limited autonomy in marital decision-making, gender-inequitable attitudes, and relationship strain (e.g., stress, lower marital satisfaction) were associated with IPV during pregnancy in several contexts [18,25,30]. Taken together, these findings suggest that IPV risk during pregnancy in Asian settings reflects the combined influence of socioeconomic disadvantage, reproductive pressures, partner risk behaviours, and gendered relationship dynamics, with the salience of individual correlates varying across countries and study designs [16,18-20,24,25,29,30,35].

Table 5. Factors Associated with IPV during Pregnancy in Selected Countries

Factor	Evidence (country, study, design)
Socio-demographic and economic factors	
Lower education	Sri Lanka – Muzrif <i>et al.</i> , 2018 [13]; Clinic-based cross-sectional; 1,375 rural/urban and 800 tea-estate women (6-40 weeks)
	Sri Lanka – Moonesinghe <i>et al.</i> , 2004 [36]; Clinic-based cross-sectional; 1,200 women (15-49 years)
	India – Jungari and Chinchore, 2022 [18]; Community cross-sectional; 550 women who gave birth in the last 2 years
	India – Jain <i>et al.</i> , 2017 [20]; Hospital prospective observational; 400 women (20-28 weeks)
	India – Samal and Poornesh, 2022 [22]; OPD cross-sectional; 200 women at the first antenatal visit
	Afghanistan/Iran – Dadras <i>et al.</i> , 2021 [24]; Community cross-sectional; 424 women (18-44 years)

(Continued)

Factor	Evidence (country, study, design)
	Nepal — Sharma and Kaphle, 2023 [25]; Community cross-sectional; 263 postpartum women
	Pakistan — Shahmir <i>et al.</i> , 2023 [16]; Hospital prospective descriptive longitudinal; 105 women (15-49 years)
	Japan — Maruyama <i>et al.</i> , 2023 [29]; Secondary analysis of cross-sectional data; 1,230 women (>34 weeks)
	Saudi Arabia — Al Taifi <i>et al.</i> , 2021 [35]; Community cross-sectional; 1,330 pregnant women (any gestational age)
Lower income	Sri Lanka — Muzrif <i>et al.</i> , 2018 [13]; Clinic-based cross-sectional; 1,375 rural/urban and 800 tea-estate women (6-40 weeks)
	India — Jungari and Chinchore, 2022 [18]; Community cross-sectional; 550 women who gave birth in the last 2 years
	India — Samal and Poornesh, 2022 [22]; OPD cross-sectional; 200 women at the first antenatal visit
	Japan — Maruyama <i>et al.</i> , 2023 [29]; Secondary analysis of cross-sectional data; 1,230 women (>34 weeks)
	Saudi Arabia — Al Taifi <i>et al.</i> , 2021 [35]; Community cross-sectional; 1,330 pregnant women (any gestational age)
Lower socioeconomic status	Sri Lanka — Moonesinghe <i>et al.</i> , 2004 [36]; Clinic-based cross-sectional; 1,200 women (15-49 years)
	India — Jungari and Chinchore, 2022 [18]; Community cross-sectional; 550 women who gave birth in the last 2 years
	India — Nath <i>et al.</i> , 2021 [19]; Hospital cross-sectional; 350 women (>18 years; <24 weeks)
	India — Jain <i>et al.</i> , 2017 [20]; Hospital prospective observational; 400 women (20-28 weeks)
	Pakistan — Shahmir <i>et al.</i> , 2023 [16]; Hospital prospective descriptive longitudinal; 105 women (15-49 years)
Women's employment status/unemployment	Afghanistan/Iran — Dadras <i>et al.</i> , 2021 [24]; Community cross-sectional; 424 women (18-44 years)
	Pakistan — Shahmir <i>et al.</i> , 2023 [16]; Hospital prospective descriptive longitudinal; 105 women (15-49 years)
	Japan — Maruyama <i>et al.</i> , 2023 [29]; Secondary analysis of cross-sectional data; 1,230 women (>34 weeks)
Ethnicity / caste	Sri Lanka — Muzrif <i>et al.</i> , 2018 [13] (reported as: Muslim ethnicity (Ctx)); Clinic-based cross-sectional; 1,375 rural/urban and 800 tea-estate women (6-40 weeks)
	India — Jungari and Chinchore, 2022 [18]; Community cross-sectional; 550 women who gave birth in the last 2 years
Birth of a girl child	Pakistan — Shahmir <i>et al.</i> , 2023 [16] (reported as: Gave birth to girls (Ctx)); Hospital prospective descriptive longitudinal; 105 women (15-49 years)
Reproductive and biological factors	
Higher parity / multigravida	India — Nath <i>et al.</i> , 2021 [19]; Hospital cross-sectional; 350 women (>18 years; <24 weeks)
	India — Jain <i>et al.</i> , 2017 [20]; Hospital prospective observational; 400 women (20-28 weeks)

(Continued)

Factor	Evidence (country, study, design)
	Afghanistan/Iran – Dadras <i>et al.</i> , 2021 [24]; Community cross-sectional; 424 women (18-44 years)
	Japan – Maruyama <i>et al.</i> , 2023 [29]; Secondary analysis of cross-sectional data; 1,230 women (>34 weeks)
	Saudi Arabia – Al Taifi <i>et al.</i> , 2021 [35]; Community cross-sectional; 1,330 pregnant women (any gestational age)
Early marriage	Sri Lanka – Moonesinghe <i>et al.</i> , 2004 [36]; Clinic-based cross-sectional; 1,200 women (15-49 years)
Maternal age - younger	Sri Lanka – Muzrif <i>et al.</i> , 2018 [13]; Clinic-based cross-sectional; 1,375 rural/urban and 800 tea-estate women (6-40 weeks)
	Japan – Maruyama <i>et al.</i> , 2023 [29]; Secondary analysis of cross-sectional data; 1,230 women (>34 weeks)
	Saudi Arabia – Al Taifi <i>et al.</i> , 2021 [35]; Community cross-sectional; 1,330 pregnant women (any gestational age)
Maternal age - older (Age >20)	India – Nath <i>et al.</i> , 2021 [19]; Hospital cross-sectional; 350 women (>18 years; <24 weeks)
Previous miscarriage/stillbirth	Japan – Maruyama <i>et al.</i> , 2023 [29]; Secondary analysis of cross-sectional data; 1,230 women (>34 weeks)
Partner-related and behavioural factors	
Partner occupation	India – Nath <i>et al.</i> , 2021 [19] (reported as: Husband semi-/skilled occupation (Emp)); Hospital cross-sectional; 350 women (>18 years; <24 weeks)
Partner education	Afghanistan/Iran – Dadras <i>et al.</i> , 2021 [24]; Community cross-sectional; 424 women (18-44 years)
Partner alcohol use	Sri Lanka – Moonesinghe <i>et al.</i> , 2004 [36]; Clinic-based cross-sectional; 1,200 women (15-49 years)
	India – Jungari and Chinchore, 2022 [18]; Community cross-sectional; 550 women who gave birth in the last 2 years
	India – Samal and Poornesh, 2022 [22]; OPD cross-sectional; 200 women at the first antenatal visit
	Nepal – Sharma and Kaphle, 2023 [25]; Community cross-sectional; 263 postpartum women
	Thailand – Boonnate <i>et al.</i> , 2015 [30]; Hospital cross-sectional; 230 women (>18 years; 32-40 weeks)
Partner substance use / addiction (alcohol/tobacco/smoking)	India – Jain <i>et al.</i> , 2017 [20]; Hospital prospective observational; 400 women (20-28 weeks)
	Nepal – Sharma and Kaphle, 2023 [25]; Community cross-sectional; 263 postpartum women
	Pakistan – Shahmir <i>et al.</i> , 2023 [16]; Hospital prospective descriptive longitudinal; 105 women (15-49 years)
Marital and psychosocial factors	
Nuclear family setting	Sri Lanka – Moonesinghe <i>et al.</i> , 2004 [36]; Clinic-based cross-sectional; 1,200 women (15-49 years)
Unmarried status	Japan – Maruyama <i>et al.</i> , 2023 [29]; Secondary analysis of cross-sectional data; 1,230 women (>34 weeks)

(Continued)

Factor	Evidence (country, study, design)
Low family support	Nepal — Sharma and Kaphle, 2023 [25]; Community cross-sectional; 263 postpartum women
Husband decision-maker (patriarchal dynamics)	Sri Lanka — Moonesinghe <i>et al.</i> , 2004 [36]; Clinic-based cross-sectional; 1,200 women (15-49 years)
Husband's prior marriage	Sri Lanka — Moonesinghe <i>et al.</i> , 2004 [36]; Clinic-based cross-sectional; 1,200 women (15-49 years)
Poor sexual relationship	Sri Lanka — Moonesinghe <i>et al.</i> , 2004 [36]; Clinic-based cross-sectional; 1,200 women (15-49 years)
Low autonomy in marriage decision	Nepal — Sharma and Kaphle, 2023 [25]; Community cross-sectional; 263 postpartum women
Traditional male gender role attitudes	India — Jungari and Chinchore, 2022 [18]; Community cross-sectional; 550 women who gave birth in the last 2 years
Stress	Thailand — Boonnate <i>et al.</i> , 2015 [30]; Hospital cross-sectional; 230 women (>18 years; 32-40 weeks)
Lower marital satisfaction	Thailand — Boonnate <i>et al.</i> , 2015 [30]; Hospital cross-sectional; 230 women (>18 years; 32-40 weeks)

Pregnancy Outcomes among Women Experiencing IPV

Across the reviewed Asian studies, IPV during pregnancy was associated with adverse pregnancy continuation and birth outcomes, with a recurrent pattern of pregnancy loss and impaired foetal growth/gestational duration (Table 6). Miscarriage/abortion and stillbirth were reported across multiple settings, including South and South-East Asia and the Afghanistan/Iran context, indicating that IPV exposure during pregnancy may compromise pregnancy viability through both stress-related pathways and direct physical harm [22,24,26,28]. Similarly, low birth weight and preterm birth were repeatedly identified across diverse countries and study designs, reinforcing a consistent signal that IPV is linked to restricted foetal growth and shortened gestation [16,17,21,26,28,35,37].

A second pattern concerns maternal and obstetric complications, where IPV exposure was linked with haemorrhagic and placental complications

(e.g., placental abruption, antepartum and intrapartum haemorrhage) and membrane rupture, alongside broader maternal morbidity such as anaemia and genital/gynaecological infections [16,21,24]. Although outcome profiles varied by setting, these findings collectively suggest that IPV may contribute to clinical risk through a combination of physiological stress responses, reduced care-seeking, and trauma-related obstetric sequelae, with some studies reporting substantial burdens of complications among exposed women [16,24,37].

Finally, the evidence indicates that IPV during pregnancy has a marked psychological impact, with clinically significant depressive morbidity documented among women experiencing IPV [20]. Taken together, the reviewed studies show a coherent pattern in which IPV during pregnancy is not confined to psychosocial harm, but aligns with multi-domain adverse outcomes; pregnancy loss, foetal/neonatal compromise, maternal/obstetric complications, and maternal mental health [16,17,20,21,24,26,28,35,37].

Table 6. Pregnancy Outcomes among Women Experiencing IPV during Pregnancy

Pregnancy outcome	Evidence (country, study, design)
Miscarriage / abortion	India – Samal and Poornesh <i>et al.</i>, 2022 [22]; OPD cross-sectional; 200 women at first antenatal visit; miscarriage/abortion reported Afghanistan/Iran – Dadras <i>et al.</i>, 2021 [24]; Community cross-sectional; 424 women (18-44 years); miscarriage/abortion 5.7% Nepal – Koirala, 2022 [26]; Hospital cross-sectional; 220 postnatal women (15-45 years); miscarriage/abortion 35% Vietnam – Hoang <i>et al.</i>, 2016 [28]; Community prospective cohort; 1,276 women (<24 weeks; 30-34 weeks), miscarriage/abortion 13.2%
Stillbirth	Afghanistan/Iran – Dadras <i>et al.</i>, 2021 [24]; Community cross-sectional; 424 women (18-44 years); stillbirth 7.5% Nepal – Koirala, 2022 [26]; Hospital cross-sectional; 220 postnatal women (15-45 years); stillbirth 2.8% Vietnam – Hoang <i>et al.</i>, 2016 [28]; Community prospective cohort; 1,276 women (<24 weeks; 30-34 weeks); stillbirth 9.7%
Low birth weight	India – Garg <i>et al.</i>, 2020 [17]; Community prospective observational; 1,500 women (<20 weeks); LBW 47.2% Nepal – Koirala, 2022 [26]; Hospital cross-sectional; 220 postnatal women (15-45 years); LBW 36% Bangladesh – Ferdos and Rahman, 2017 [37]; Hospital cross-sectional; 400 postnatal women; LBW 69.5% Vietnam – Hoang <i>et al.</i>, 2016 [28]; Community prospective cohort; 1,276 women (<24 weeks; 30-34 weeks; 48 h post-delivery); LBW 2.4% Saudi Arabia – Al Taifi <i>et al.</i>, 2021 [35]; Community cross-sectional; 1,330 pregnant women (any gestational age); percentage not reported
Preterm birth	India – Garg <i>et al.</i>, 2020 [17]; Community prospective observational; 1,500 women (<20 weeks); PTB 12.7% India – Devineni <i>et al.</i>, 2018 [21]; Hospital prospective observational; 200 admitted women; PTB 6.14% Nepal – Koirala, 2022 [26]; Hospital cross-sectional; 220 postnatal women (15-45 years); PTB 24% Pakistan – Shahmir <i>et al.</i>, 2023 [16]; Hospital longitudinal; 105 women (15-49 years); PTB 63.8% Vietnam – Hoang <i>et al.</i>, 2016 [28]; Community prospective cohort; 1,276 women (<24 weeks; 30-34 weeks; 48 h post-delivery); PTB 2.7% Saudi Arabia – Al Taifi <i>et al.</i>, 2021 [35]; Community cross-sectional; 1,330 pregnant women (any gestational age); percentage not reported
Placental abruption	India – Devineni <i>et al.</i> , 2018 [21]; Hospital prospective observational; 200 admitted women; placental abruption 6.14%
Antepartum haemorrhage	Pakistan – Shahmir <i>et al.</i> , 2023 [16]; Hospital longitudinal; 105 women (15-49 years); APH 55.2%
Pre-labour rupture of membranes	Afghanistan/Iran – Dadras <i>et al.</i> , 2021 [24]; Community cross-sectional; 424 women (18-44 years); PROM 11.3%

(Continued)

Pregnancy outcome	Evidence (country, study, design)
Intrapartum haemorrhage	Afghanistan/Iran — Dadras <i>et al.</i> , 2021 [24]; Community cross-sectional; 424 women (18-44 years); intrapartum haemorrhage 12.7%
Anaemia	Pakistan — Shahmir <i>et al.</i> , 2023 [16]; Hospital longitudinal; 105 women (15-49 years); anaemia 71.4%
Maternal illness	India — Samal and Poornesh <i>et al.</i> , 2022 [22]; OPD cross-sectional; 200 women at first antenatal visit; maternal illness reported
Obstetric complications	Bangladesh — Ferdos and Rahman, 2017 [37]; Hospital cross-sectional; 400 postnatal women; obstetric complications 44.3%
Clinical depression	India — Jain <i>et al.</i> , 2017 [20]; Hospital prospective observational; 400 women (20-28 weeks); clinical depression 46.3%

Discussion

The findings of this review clearly establish that IPV during pregnancy is a substantial and under-recognised public health concern in many Asian countries, including Sri Lanka. The synthesis of local and regional evidence points to a consistent pattern: women who experience IPV during pregnancy face heightened risks of adverse maternal and perinatal outcomes. These include preterm birth, low birth weight, miscarriage, stillbirth, antenatal complications, and psychological disorders such as antenatal depression.

The implications of IPV during pregnancy extend beyond the clinical sphere. Women subjected to violence often experience delays in seeking antenatal care, reduced compliance with medical advice, and increased stress-related complications, all of which place an additional burden on the healthcare system. Moreover, the intergenerational consequences of IPV, such as compromised early childhood development and a perpetuation of violent norms, underscore its broader societal impact [10]. What makes this issue particularly urgent is that the determinants of IPV during pregnancy are well-established and largely modifiable [6]. Factors such as low maternal education,

partner substance abuse, limited autonomy in reproductive decision-making, poor communication within relationships, and inadequate social support consistently appear across studies as key drivers of violence during pregnancy [41]. This recognition presents a critical opportunity for the health system to respond proactively. If these determinants are addressed through integrated, gender-sensitive public health strategies, the prevalence and impact of IPV during pregnancy can be substantially mitigated [42]. Antenatal care platforms offer a unique and strategic entry point for early identification, screening, and referral of women at risk. Strengthening the health sector response by building capacity, revising protocols, and enhancing referral pathways could play a pivotal role in breaking the cycle of violence and safeguarding the well-being of both mothers and their unborn children [10].

Despite Sri Lanka's recognised maternal health achievements, research on IPV during pregnancy remains sparse and largely overlooked in the national reproductive health agenda. Available studies, such as Senanayake (2011) and Moonesinghe & Barraclough (2018), highlight the existence and implications of IPV among pregnant women, yet comprehensive prevalence data at national and subnational levels

remain limited. Much of the existing literature is concentrated in small-scale, hospital-based, or regional studies (e.g., in the Badulla district or plantation sector settings), which lack representativeness across diverse ethnic, geographical, and socio-economic contexts. Moreover, these studies often focus on physical violence, with less attention to emotional, sexual, and controlling behaviours, and rarely explore the intersecting vulnerabilities of marginalised populations such as adolescents, disabled women, or estate-sector workers [11]. Furthermore, limited research has been conducted on the longitudinal impact of IPV on maternal and neonatal outcomes in Sri Lanka, and the voices of pregnant women themselves regarding their help-seeking behaviours, coping mechanisms, and barriers to care are underrepresented. This evidentiary gap restricts the formulation of context-specific interventions and undermines the integration of IPV screening within maternal health programmes.

Sri Lanka's policy framework increasingly embeds IPV response within maternal health services. National guidance for first-contact providers supports IPV enquiry in antenatal and postnatal care settings where privacy and referral mechanisms are in place, including use of the four-item HITS tool, while the accompanying SOPs direct PHMs to conduct sensitive enquiry, provide first-line support (L.I.V.E.S.), and refer survivors to dedicated services such as Mithuru Piyasa/Natpu Nilayam, with follow-up through routine field systems [43-45]. However, recent evidence from the World Bank-supported GBV costing study (2025) suggests an implementation gap: IPV during pregnancy may remain under-identified and inconsistently managed due to limited practical capacity,

variable uptake of protocols, and missed opportunities to integrate IPV assessment across ANC/PNC contacts, including postnatal and immunisation settings. These gaps are further compounded by low awareness and limited usability of the 24/7 helpline, resulting in delayed identification, fragmented referral pathways, and uneven access to specialised support [46].

Conclusion

IPV during pregnancy remains a substantial and preventable public health concern across Asia, with prevalence varying widely by setting and study design. In this review's quantitative synthesis, the pooled prevalence was approximately 14.4% (95% CI: 10.3%-19.9%), with very high heterogeneity and a broad prediction interval, indicating that prevalence can differ markedly across populations and contexts. Psychological violence was reported more frequently than physical or sexual violence, and commonly identified correlates included low maternal education, younger maternal age, poverty, limited partner support, partner alcohol use, and restrictive gender norms. IPV exposure during pregnancy was consistently associated with adverse maternal and pregnancy outcomes, including depression and psychological distress, anaemia, miscarriage, preterm delivery, and low birth weight.

In Sri Lanka, policy and service frameworks increasingly support IPV enquiry and first-line response within antenatal and postnatal care, including guidance for PHMs on sensitive enquiry, first-line support, and referral to Mithuru Piyasa/Natpu Nilayam. However, recent system assessments indicate implementation gaps: national protocols are not uniformly

applied, GBV screening is often absent from routine maternal and child health contacts, and PHMs are not yet fully integrated into early identification and referral pathways. Strengthening routine, privacy-assured IPV enquiry and referral across ANC/PNC (including postnatal and immunisation contacts), alongside practical capacity-building, supportive supervision, and stronger monitoring and intersectoral coordination, is essential. Parallel priorities include more standardised and nationally representative research particularly longitudinal and qualitative studies to better characterise trajectories, service uptake, and outcomes, and to guide context-specific, survivor-centred interventions.

Author Contribution

MSS conceptualized the literature review, conducted the synthesis and meta-analysis, and drafted the manuscript. PK conducted the literature search, screening, and data charting. LS led the overall study, formulated recommendations, and critically reviewed the manuscript. JD, CB, AD, PS and CR contributed to conceptualize the research design, interpretation and critical review. All authors approved the final manuscript.

Use of Artificial Intelligence Assisted Technologies

During the preparation of this work, the authors used OpenAI (version GPT-5.2) to improve the language and readability. The authors reviewed and edited the content as needed and take full responsibility for the final publication.

Conflict of Interest

The authors declare that there are no conflicts of interest.

Ethical Approval

Ethical approval for this study was obtained from the Ethical Clearance Committee of the Faculty of Medicine, General Sir John Kotelawala Defence University, Sri Lanka. The application (Reference No: RP/2025/09) was reviewed and approved at the ERC meeting held on 23rd April 2025. The official approval letter was issued on 25th April 2025.

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