

# Intimate Partner Violence During Pregnancy in South Asia: Systematic Review and Meta-Analysis

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## ABSTRACT

**Background:** This systematic review collated the literature on the prevalence rate of different types of intimate partner violence (IPV) during pregnancy in South Asia.

**Methods:** Systematic literature searches were conducted in four major databases (Embase, Scopus, PubMed, PubMed Central) to identify relevant articles published from the inception of each database to May 2021, which reported data on the prevalence of intimate partner violence during pregnancy in South Asia. The Joanna Briggs Institute critical appraisal tool for prevalence studies was used to assess the risk of bias in individual studies. A random-effects model was used to calculate the pooled prevalence and corresponding 95% confidence interval due to significant between-study heterogeneity.

**Results:** Thirty-seven studies were reviewed which showed an overall prevalence of IPV from South Asian countries was 23.4% (physical violence: 13.6%; sexual violence: 8.5%; emotional violence: 20.2%).

**Conclusions:** There was a higher prevalence of intimate partner violence during pregnancy reported, with an overall prevalence ranging from 1.7% to 66.4% across studies. Emotional violence was more prevalent form when compared to sexual or physical violence.

**Keywords:** Intimate partner violence; pregnancy, south Asia; systematic review

## INTRODUCTION

Intimate partner violence (IPV) is one of the most common forms of violence against women globally, especially in low- and middle-income countries with poor physical and mental health.<sup>1</sup>

Globally, 10% to 69% of women have reported experiencing physical violence by their partners. The prevalence seems to vary from country to country, with the highest prevalence of IPV (i.e., 37.7%) in Southeast Asia.<sup>2</sup> As per the Global Burden of Disease study 2019, IPV was estimated to be 6.44 million globally (95% uncertainty interval, 3.55-9.87 million); and for Nepal age standardised summary exposure value for IPV as

a risk factor was -0.703 (-13.8-26.5) during 2010-2019 (percentage change by female sex, 95% uncertainty interval).<sup>3</sup>

IPV during pregnancy affects two lives at once and exposes women to post-natal depression. This violence affects the mental health of a mother, and such violence during pregnancy could also severely affect fetal development.<sup>4</sup> In South Asia, IPV seems to be more associated with unintended pregnancy,<sup>5</sup> and in Nepal, IPV, both emotional and physical, seems to be more associated with food insecurity.<sup>5</sup> However, existing literatures do not capture the totality of the burden in pregnancy caused by IPV in South Asia. Therefore, this systematic review and meta-analysis tried to summarize

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the existing evidence about IPV prevalence during pregnancy in South Asia.

## METHODS

### Protocol registration

The systematic review is registered in PROSPERO (CRD42021254600). It is documented as per the guidelines of the Meta-Analysis of Observational Studies in Epidemiology (MOOSE), available as [Supplementary file 1](#).<sup>7</sup>

### Information sources and search strategy

Electronic databases such as Pubmed, PubMed Central, Embase, and Scopus were searched using a search builder without a language barrier to find relevant articles. Published articles were searched using the following keywords ('South Asia' OR Nepal OR India OR Bhutan OR 'Sri Lanka' OR Pakistan OR Bangladesh OR Afghanistan OR Maldives) AND ('Pregnant women' OR Mother OR 'Breastfeeding mother' OR 'New mother') AND (Spouse OR 'Intimate partner' OR Husband) AND (Violence OR Abuse OR 'Physical assault' OR Battery OR Assault). The final search strategy for the included database is provided in [Supplementary file 2](#).

### Eligibility criteria

All published studies before May 2021 that took place in South Asia were included in this review. The included studies comprised cross-sectional studies, case series that reported on more than 50 patients, cohort studies, and case-control studies based on the prevalence of IPV during pregnancy and/or its risk factors. Editorials, commentaries, systematic reviews, viewpoint articles, case studies without adequate data on IPV during pregnancy, and related issues were excluded. Furthermore, the studies where violence was not specified during pregnancy were excluded.

### Study selection

The studies were selected with the use of Covidence. The title and abstract were screened independently based on four authors' inclusion criteria (AA, AM, SL, SN). Discrepancies were resolved by consensus obtained from the third author (SAN). Further full-text review (SN, SL, SAN, AM) was done independently, and discrepancies (AA) were resolved.

### Data collection process and data extraction

Three authors (SL, AM, and SN) were independently involved in the data extraction and added that to a standardized form in Excel. In addition, all the reviewers verified the accuracy and completion of each other's work. The characteristics extracted for each selected study included author, year, study design, sample size, study location, and prevalence (each type of IPV and overall prevalence).

### Data analysis

Comprehensive Meta-Analysis Software (CMA) v.3 was used to analyze the extracted data.

### Risk of bias assessment

The quality of individual articles was evaluated (DBS, PB) using the Joanna Briggs Institute (JBI) critical appraisal tool for observational studies, available as [Supplementary file 3](#).<sup>8</sup> Publication bias across the studies was evaluated by funnel plot.

## RESULTS

After thorough database searching, 4717 studies were imported for screening. After the removal of 270 duplicates 4447 studies were screened. After the exclusion of 3988 studies, full-text eligibility of 459 studies were accessed of which 422 studies were excluded for definite reasons and 37 studies were included in the analysis. The search process is presented in the PRISMA flowchart (Figure 1). A narrative summary of the included studies is presented in [Supplementary file 4](#).<sup>9-45</sup>

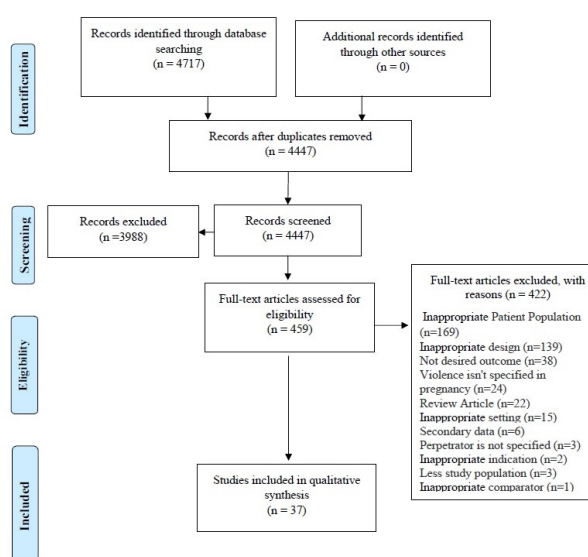
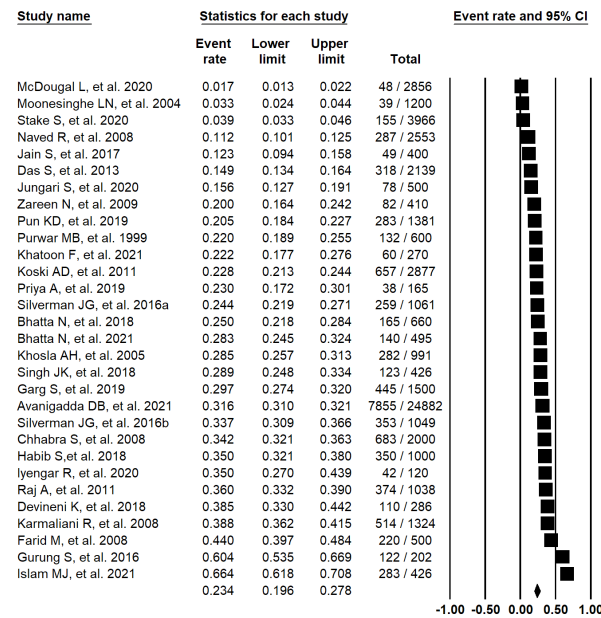


Figure 1. PRISMA flow diagram.

**Prevalence of IPV**

Pooling data using a random-effects model from 30 studies reporting IPV prevalence from South Asian countries showed 23.4% (Proportion, 0.234; CI, 0.196-0.278; I<sup>2</sup>: 98.99%). Prevalence ranged from 1.7% to 66.4% across the studies (Figure 2). Sensitivity analysis performed by excluding one study did not show much change in the proportion of the IPV (Supplementary file 5, Figure 1).



**Figure 2. Forest plot showing the prevalence of IPV from South Asian countries using a random-effect model.**

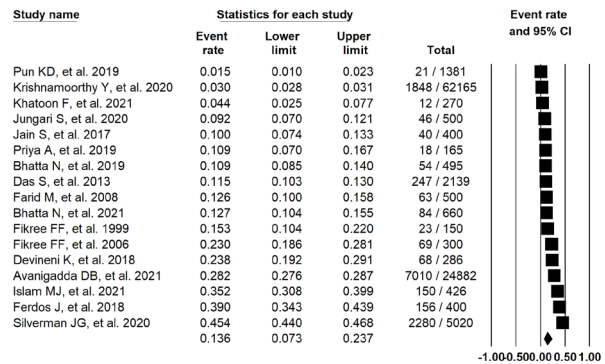
**Physical violence**

Pooling data using the random-effects model from 17 studies reporting the physical form of IPV from South Asian countries showed 13.6% (Proportion, 0.136; 95% CI, 0.073-0.237; I<sup>2</sup>: 99.65%). Prevalence ranged from 1.5% to 45.4% across the studies (Figure 3). Sensitivity analysis performed by excluding one study did not show much change in the proportion of the IPV (Supplementary file 5, Figure 2).

**Sexual violence**

The random-effects model of the pooled data from 17 studies reporting physical forms of IPV from South Asian countries showed 8.5% (Proportion, 0.085; 95% CI, 0.053-0.133; I<sup>2</sup>: 99.18%). Prevalence ranged from 1.6% to 30.8% across the studies (Figure 4). Sensitivity analysis

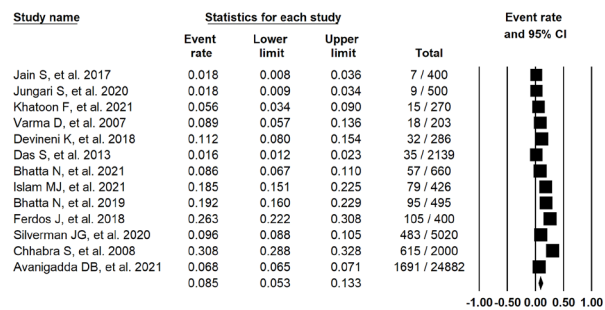
performed by excluding one study did not show much change in the proportion of the IPV (Supplementary file 5, Figure 3).



**Figure 3. Forest plot showing the prevalence of a physical form of IPV from South Asian countries using a random-effect model.**

**Emotional violence**

Pooling data using a random-effects model from 14 studies reporting the emotional form of IPV from South Asian countries showed 20.2% (Proportion, 0.202; 95% CI, 0.128-0.303; I<sup>2</sup>: 99.12%). Prevalence ranged from 7.8% to 66.0% across the studies (Figure 5). Sensitivity analysis performed by excluding one study did not show much change in the proportion of the IPV (Supplementary file 5, Figure 4).

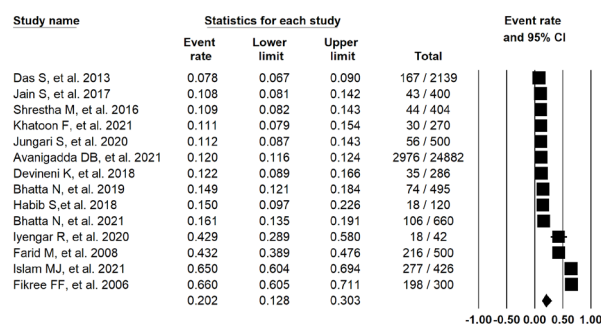


**Figure 4. Forest plot showing the prevalence of a sexual form of IPV from South Asian countries using a random-effect model.**

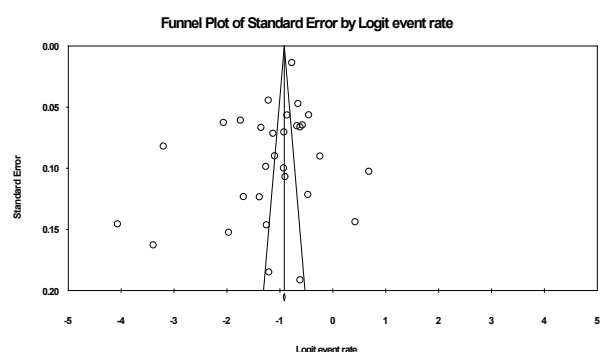
**Publication bias**

Publication bias for the assessed outcomes for overall prevalence was tested by deriving funnel plots, and it showed asymmetrical distribution suggesting significant publication bias across the studies (Figure 6). Publication bias for different types of violence is

provided in [Supplementary file 5](#), figure 6-8.



**Figure 5. Forest plot showing the prevalence of an emotional form of IPV from South Asian countries using a random-effect model.**



**Figure 6. Funnel plot showing the asymmetrical scattered distribution of studies suggesting publication bias for overall IPV.**

## DISCUSSION

This systematic review and meta-analysis identified the pooled prevalence of intimate partner violence to be over 23% based on 30 studies retrieved from South Asian countries. The pooled prevalence of reported emotional violence was the highest and the reported sexual violence was found to be the lowest. The findings of this study highlight the urgency to address IPV in South Asian countries.

IPV mostly refers to violence perpetrated between intimate or romantic partners who are married or are in a dating relationship with an adult or adolescent victim, with the aim of establishing control of one partner over another.<sup>46</sup> IPV seems to prevail not only in South Asian women, but the rate seems to be relatively high even in the South Asian immigrants of the United States.<sup>2</sup> Studies using community-based samples have shown a prevalence of up to 40%. Such a high rate of

IPV prevalence could be accounted for gendered racism, arranged marriage system, patriarchal social norms, and most importantly, the hesitance of disclosing IPV for the sake of protecting family honor.<sup>2</sup> The concept of the patriarchal family seems to be embedded deep in the culture of South Asian women, due to which no matter how educated or where the South Asian women migrate, they seem to accept IPV to some extent, and this acceptance could be fatal in case of pregnant women. Abuse during pregnancy has shown to be highly associated with increased rates of depression, suicide attempts, and tobacco, alcohol, and illicit drugs usage.<sup>47,48</sup> Moreover, IPV not only results in pregnancy complications (e.g., inadequate weight gain, infections, and bleeding) but also adverse pregnancy outcomes such as low birth weight, preterm delivery, and neonatal death.<sup>49</sup> Furthermore, IPV has a vast impact on society, and during pregnancy, when a woman needs more care and nurturing, this violence appears to take a greater toll.

The overall prevalence of intimate partner violence in this review was 23.4% (Proportion, 0.234; 95% CI, 0.196-0.278;  $I^2$ : 98.99%). The highest prevalence was 66.4%, which Islam et al observed in a study conducted in Bangladesh.<sup>12</sup> The majority of research has shown that between 3% to 9% of women experience abuse during pregnancy, which could be accounted to single relationship status, minority race/ethnicity, and poverty. Similarly, research that has assessed IPV in all three trimesters of pregnancy clearly shows a higher prevalence than those studies that have most commonly screened for IPV only once.<sup>50</sup> This statement verifies that IPV persists in most pregnancies and has a higher tendency to go unnoticed if not monitored carefully. A multi-country study conducted by WHO in 10 countries, Bangladesh was included from South Asia, showed a prevalence of 1% to 28%.<sup>51</sup> The worldwide prevalence of physical, psychological and sexual IPV in pregnancy was 9.2% (95% CI, 7.7-11.1%), 18.7% (95% CI, 15.1-22.9%), and 5.5% (95% CI, 4.0-7.5%) respectively, which is 25% higher in Africa, followed by Asia.<sup>52</sup>

In this review the pooled prevalence of physical violence was 13.6%, of which the highest prevalence was reported from India, where 47.6% of women were physically abused during their pregnancy.<sup>43</sup> A study from South Africa reported more than 20% of women experienced at least one form of physical, sexual, or psychological violence during pregnancy.<sup>53</sup> Almost all countries in South Asia have a patriarchal nature in the society. Some authors from Pakistan argued that spousal violence by the husband is acceptable in the family

because the wives do not reciprocate the violence and keep silent.<sup>12,18,24</sup> It is estimated that one in ten mothers is exposed to physical violence; one in twenty to sexual violence, and one in five to emotional violence on average globally.<sup>52</sup>

The pooled prevalence of reported sexual violence was the lowest among all types of IPV in this review at just 8.5%. Except for Nepal and Sri Lanka, most of the countries in South Asia lack a legislature for marital rape.<sup>54</sup> The Islamic law is followed in the countries like Bangladesh, Pakistan, Afghanistan, and the Maldives; where it is mentioned that wives should be submissive and the husband should have unrestricted access to his wife for sexual intercourse irrespective of her wishes.<sup>24,54</sup> Advanced pregnancy during which the females are discomforted and unwilling for sexual intercourse may provoke the husband to physical and sexual abuse. The extramarital affair of the husband is also one of the reasons for spousal abuse during pregnancy.<sup>43</sup> The lower prevalence of reported sexual violence highlights the need for more in-depth primary studies that could identify the natures of sexual violence during pregnancy in South Asian countries. It also highlights the need for enabling an environment for women to be able to open up about their experiences with sexual violence.

The pooled prevalence of emotional violence was reported to be the highest among all types of IPV in this review at 20%. There is a strong association between IPV during pregnancy and mental disorders.<sup>55</sup> There is a higher risk of post-natal depression and suicide in case of IPV during pregnancy.<sup>55</sup> The expecting mother with low energy, and low self-esteem might think the violence would end after the pregnancy, and staying with the partner is a safer option for her unborn child.<sup>56</sup> Nevertheless, in a society where women tend to remain silent, the increasing rate of reported emotional violence could attribute to increasing awareness among people about emotional violence. However, more studies are needed to look into the various reasons behind the increased reporting of emotional violence.

Antenatal checkups provide a window to detect IPV. Therefore, antenatal check-ups should be made mandatory in countries where IPV is more prevalent. This is when the victims of IPV visit healthcare providers; therefore, the healthcare workers need to be aware of the risk of IPV during pregnancy and screen all pregnant women for IPV. A standardized questionnaire, if developed in the local language and filled during the antenatal checkups, is recommended, which would be an ideal tool to screen IPV during pregnancy. A recent

study from Southern Italy showed that obstetricians had a negative attitude and disregarded the violence upon pregnant women.<sup>57</sup> Therefore, health care workers also need to be trained on identifying violence during pregnancy as a crucial issue and deal with it in a sensitive, safe, and empathetic way.

One of the limitations of the present study is that it focused only on the articles published in the English language in the indexed journals. Therefore, the exclusion of non-indexed studies in the retrieved databases might have led to the omission of some relevant studies. Furthermore, the majority of the study included in the present review had a small sample size. As a result, there was a high I-square and unexplained heterogeneity. Therefore, the pooled prevalence for different types of IPV must be interpreted with caution. Furthermore, the asymmetry of the funnel plot depicting the publication bias also limits the present study's findings.

## CONCLUSIONS

This work contributes to the existing literature by providing the prevalence of IPV during pregnancy in South Asia. A higher prevalence was reported, with an overall prevalence ranging from 1.7% to 66.4% across studies. Emotional violence was a more prevalent form when compared to sexual or physical violence. The present study also highlights the need for services to identify, recognize and prevent violence against women during the prenatal period as well.

## CONFLICT OF INTEREST

The authors declare no conflict of interest.

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