

Associations of Intimate Partner Violence and Maternal Comorbidities: A cross-sectional analysis



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INTRODUCTION

Intimate-partner violence (IPV) is the act of inflicting physical, sexual, and/or emotional assault with coercive control. IPV is a traumatic experience, and the repercussions can be exacerbated in pregnant women by imposing risks on mother and child.^{1,2} Screening methods are useful for assessing the presence of IPV, especially because IPV does not always present with warning signs and some women attempt to conceal abusive relationships.³ As such, the U.S. Preventive Services Task Force recommends routine screening to support accurate detection of IPV and to improve outcomes of women experiencing IPV.⁴ However, screenings for IPV are not always conducted— a 2019 study showed that among 24 states, less than 50% of women reported having been screened for IPV during pregnancy.⁵

OBJECTIVES

While screening for IPV during pregnancy is recommended to occur regardless of risk, identifying clinical factors associated with increased risk for IPV during pregnancy may improve detection. There are several known socioeconomic risk factors for IPV in pregnancy, but medical factors have hardly been assessed. Thus, our primary objective was to examine associations between IPV and maternal comorbidities.

METHODS

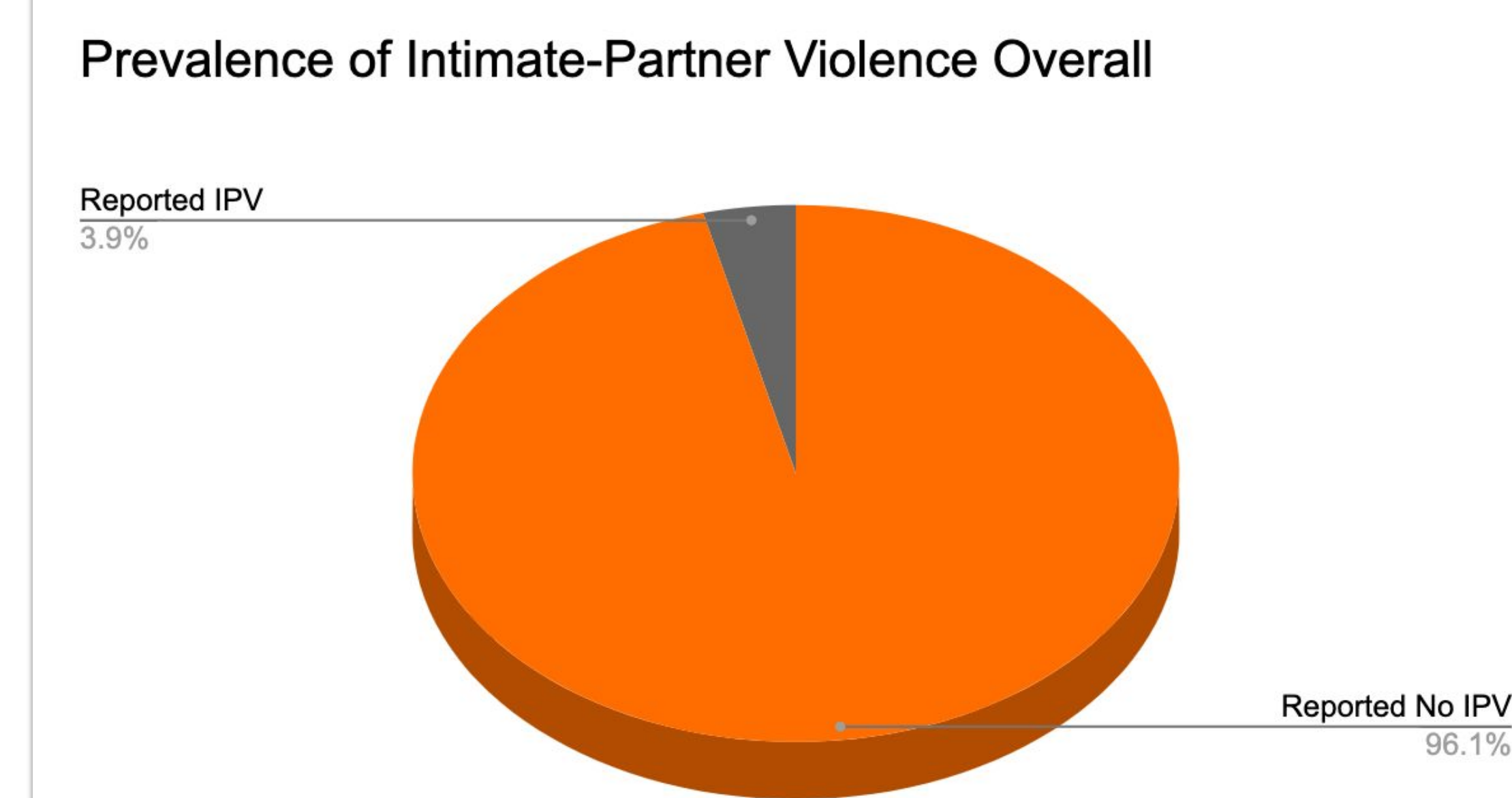
We conducted a cross-sectional analysis of the Pregnancy Risk Assessment Monitoring System (PRAMS) Phase 8 spanning 2016 through 2019. We used variables within PRAMS asking if, during pregnancy or the prior 12 months, the respondent had experienced IPV.

Bivariate and multivariable logistic regression was used to calculate adjusted odds ratios (AORs) to determine associations between IPV and diabetes, hypertension, depression, asthma, Polycystic Ovarian Syndrome (PCOS), anxiety, and thyroid disease. Confidence intervals were reported at 95%.

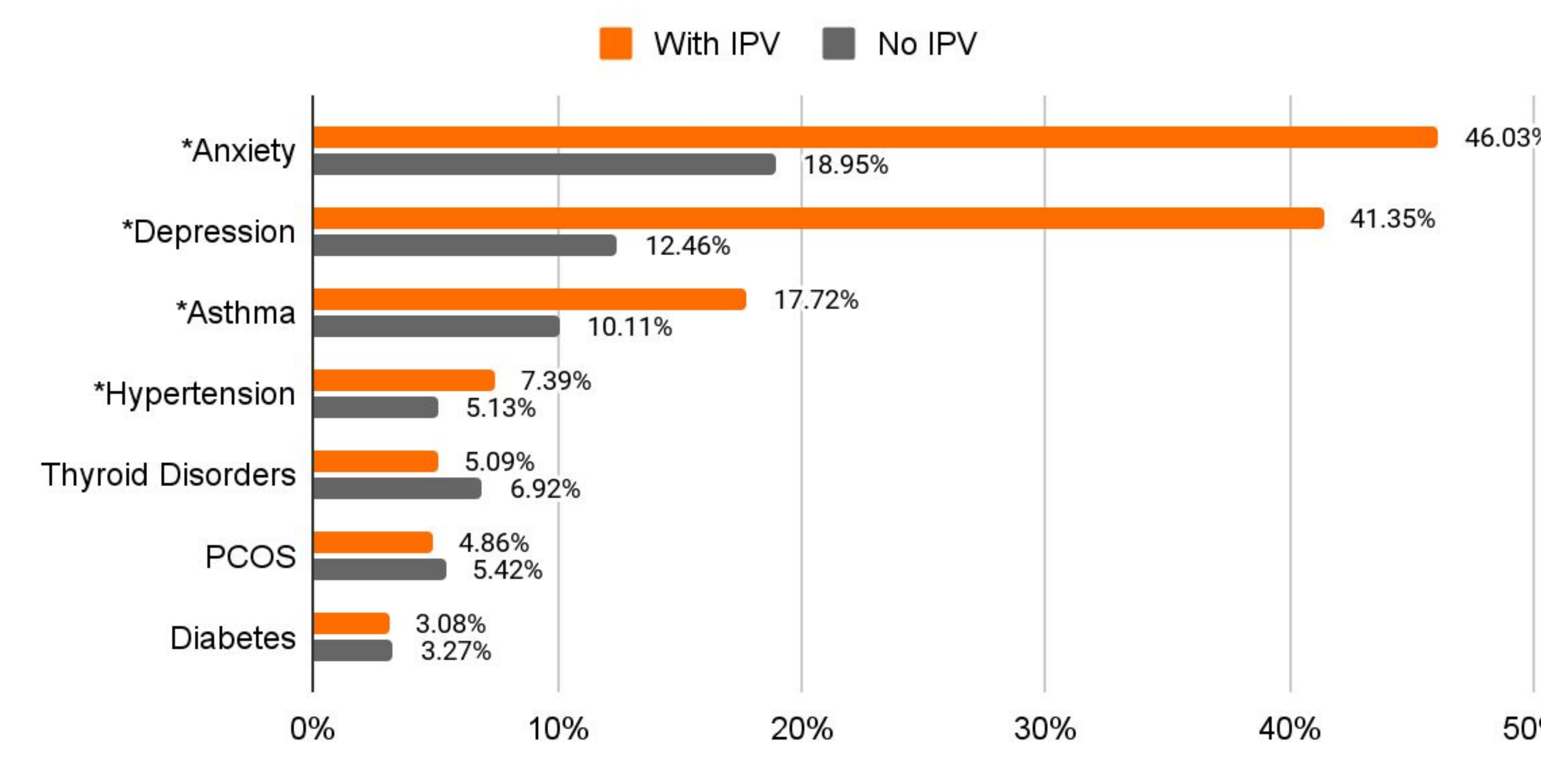
RESULTS

Of the 140,817 participants, 5,482 reported IPV, representing 240,547 (3.43%) women in the US from 2016-2019. Among women experiencing IPV, 41.35% (CI: 39.1 - 43.63) reported a history of depression, 3.08% (CI: 2.47-3.82) had diabetes, 7.39% (CI: 6.35-8.59) reported hypertension, 17.72% (CI: 15.70-19.93) had asthma, 4.86% (CI: 3.84-6.13) reported PCOS, and 46.03% (CI: 43.25-48.84) reported anxiety.

- **Anxiety:** The likelihood of reported IPV was higher among women with anxiety (OR:3.85; CI: 3.43-4.33), while the dual diagnosis of anxiety and depression together showed a significantly lower odds of reporting IPV (AOR: 0.58; CI: 0.43-0.79)
- **Depression:** Bivariate logistic regression showed that the odds of experiencing IPV were significantly more likely to occur in women reporting depression (OR: 5.03; CI: 4.56-5.55) compared to individuals without depression



Prevalence of Comorbidities Among Women Experiencing Intimate-Partner Violence



*: Statistically Significant

PCOS: Polycystic Ovarian Syndrome

- **Asthma and Hypertension:** The multivariable model also indicated women reporting asthma (AOR: 1.22; CI: 1.03-1.46) or hypertension (AOR: 1.49; CI: 1.26-1.77) were more likely to report experiencing IPV than those who did not report those comorbidities
- **Thyroid Disorders:** Women with thyroid disorders were significantly less likely to report IPV (OR: 0.74; CI: 0.57-0.97)
- **PCOS and Diabetes:** We found significantly lower odds of experiencing IPV occurred with dual diagnoses of depression and diabetes (AOR: 0.58; CI: 0.36-0.96) and depression and PCOS (AOR: 0.44; CI 0.27-0.72), while the singular diagnosis of diabetes and PCOS lacked statistical significance

CLINICAL IMPLICATIONS & RECOMMENDATIONS



IPV has severe ramifications for both pregnant mothers and their children. Exposure can be classified as direct observation or awareness of abuse between adults and is considered an adverse childhood experience.⁶

While many major medical associations, including the AMA⁷ and ACOG,⁸ recommend routine screening for IPV among women, screening does not occur often, with one study showing that only 14% of women who presented for orthopedic fractures for an IPV related-injury were asked about IPV.⁹ Thus, more widespread adoption and implementation of IPV screening in clinical settings using validated tools such as the Woman Abuse Screening Tool,¹⁰ the Partner Violence Screen,¹¹ or the Composite Abuse Scale¹² to identify IPV are recommended. Screening alone was shown to reduce recurrence of IPV and associated mental health symptoms, while improving quality of life scores.¹³ Recognition of risk factors such as these comorbidities can improve timely identification and/or prevention of IPV.

CONCLUSION

IPV is common in pregnant women, which imposes additional risks to mother and child. We found that an estimated 3.43% of women in the US have experienced IPV while pregnant. Nearly half of those women had previously been diagnosed with anxiety or depression; however, other comorbidities such as hypertension and asthma are also common in pregnant women experiencing IPV. Therefore, it is recommended to implement clinical guidelines to identify IPV in women with these comorbidities. Physician intervention is key in order to end traumatic circumstances towards pregnant women.

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