

Intimate Partner Violence, Smoking, and Pregnancy: What Can We Do to Help?

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EXPOSURE TO INTIMATE PARTNER VIOLENCE (IPV) during pregnancy is an important cause of maternal morbidity and mortality¹ and adverse birth outcomes, including preterm birth and low birth weight.² The association between IPV and small for gestational age (SGA) birth has been less clear and may be attributable to other risk factors that co-occur with IPV.² To address this issue, Alhusen et al.³ examined whether IPV in the year before or during pregnancy was related to SGA birth in a large sample of U.S. mothers who delivered neonates from 2004 to 2011. Adjusting for demographic and obstetric factors, they found that IPV was related to greater odds of SGA birth, but this association was attenuated after further adjusting for perinatal smoking. Notably, women with perinatal IPV were significantly more likely to smoke before pregnancy and to continue smoking during pregnancy, suggesting that smoking cessation may be more difficult for this group of women.

In this study, IPV was based on exposure in the year before or during pregnancy, and smoking was based on the 3 months before pregnancy and the last 3 months of pregnancy, which limits the ability to understand nuances about the timing and chronicity of exposures. Furthermore, the authors did not adjust for important potential confounding variables, including co-occurring drug use and mental health disorders, which are also associated with smoking and SGA birth. Alhusen et al.³ analyzed exposure to physical IPV. However, because of data limitations, they were unable to examine sexual or emotional IPV, which are also associated with adverse birth outcomes.² Nevertheless, this study provides provocative data indicating that increased risk for smoking and continued smoking during pregnancy among women experiencing IPV may mediate risk for SGA birth.

Women experiencing perinatal IPV represent a priority population for tobacco control, and smoking cessation support for pregnant women with IPV may mitigate some of the associated harms. However, as noted by Alhusen et al.³ if we are committed to improving the health of both mothers and their children, we need to do more than encourage women with IPV to stop smoking during pregnancy.

Maternal IPV is a major health and safety issue that increases morbidity, and is a leading contributor to preventable deaths occurring during or within 1 year of pregnancy from any cause.⁴ Furthermore, IPV is associated with substantial

healthcare costs for the mother and child.^{1,5,6} Healthcare organizations are uniquely situated to identify IPV and it has been demonstrated that healthcare interventions can increase safety and improve outcomes.⁷ The U.S. Preventive Services Task Force recommends routine IPV screening and counseling among women of childbearing age,⁸ and IPV screening and counseling are a core women's preventive service as part of the Affordable Care Act.⁹ Healthcare approaches to addressing IPV that are designed to engage the whole healthcare system and connect with patients at each step, rather than only at the doctor office visit, can potentially markedly increase IPV identification and improve patient health.¹⁰ Healthcare organizations can effectively implement IPV screening and intervention as part of routine healthcare services using a comprehensive coordinated systems model approach with actionable quantitative and qualitative measures.¹¹ Universal screening for IPV during pregnancy is a first step enabling obstetricians to identify high risk women and triage them for further risk assessment, continued support, wraparound services, and postpartum follow-up, on par with services offered to other patients with high-risk pregnancies (*e.g.*, diabetes or hypertension).

Resources to support the development of a robust system of coordinated interventions are needed to address perinatal IPV and commonly co-occurring issues, including substance use and mental health problems. In particular, multifaceted psychobehavioral counseling interventions and in-home visitation programs have shown promise for reducing IPV, including injury, and improving pregnancy outcomes and postpartum mental health.^{12,13} Additional high-quality studies are needed to determine how we can best support these women during the pre- and postpartum period. Finally, in addition to treating perinatal tobacco use directly, we may also improve women's chances of quitting smoking by appropriately and routinely inquiring about exposure to IPV, providing trauma-informed care that includes education about the impact of IPV on health and well-being, and connecting women with appropriate resources and referrals.

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References

1. Chisholm CA, Bullock L, Ferguson JEJ, 2nd. Intimate partner violence and pregnancy: Epidemiology and impact. *Am J Obstet Gynecol* 2017;217:131–144.
2. Donovan BM, Spracklen CN, Schweizer ML, Ryckman KK, Saftlas AF. Intimate partner violence during pregnancy and the risk for adverse infant outcomes: A systematic review and meta-analysis. *BJOG* 2016;123:1289–1299.
3. Alhusen JL, Geller R, Jellig J, Budhathoki C, Decker M. Intimate partner violence, small for gestational age birth and cigarette smoking in the pregnancy risk assessment monitoring system. *J Womens Health (Larchmt)*, 2017;27:458–465.
4. Mehta PK, Bachhuber MA, Hoffman R, Srinivas SK. Deaths from unintentional injury, homicide, and suicide during or within 1 year of pregnancy in Philadelphia. *Am J Public Health* 2016;106:2208–2210.
5. Rivara FP, Anderson ML, Fishman P, et al. Healthcare utilization and costs for women with a history of intimate partner violence. *Am J Prev Med* 2007;32:89–96.
6. Rivara FP, Anderson ML, Fishman P, et al. Intimate partner violence and health care costs and utilization for children living in the home. *Pediatrics* 2007;120:1270–1277.
7. Bair-Merritt MH, Lewis-O'Connor A, Goel S, et al. Primary care-based interventions for intimate partner violence: A systematic review. *Am J Prev Med* 2014;46:188–194.
8. Moyer VA, US Preventive Services Task Force. Screening for intimate partner violence and abuse of elderly and vulnerable adults: U.S. Preventive Services Task Force recommendation statement. *Ann Intern Med* 2013;158:478–486.
9. Adler NE, Johnson PA. Violence and women's health. *Science* 2015;350:257.
10. Miller E, McCaw B, Humphreys BL, Mitchell C. Integrating intimate partner violence assessment and intervention into healthcare in the United States: A systems approach. *J Womens Health (Larchmt)* 2015;24:92–99.
11. Young-Wolff K, Kotz K, McCaw B. Transforming the health care response to intimate partner violence: Addressing “wicked problems”. *JAMA* 2016;315:2517–2518.
12. Kiely M, El-Mohandes AA, El-Khorazaty MN, et al. An integrated intervention to reduce intimate partner violence in pregnancy: A randomized controlled trial. *Obstet Gynecol* 2010;115:273–283.
13. Van Parys AS, Verhamme A, Temmerman M, Verstraelen H. Intimate partner violence and pregnancy: A systematic review of interventions. *PLoS One* 2014;9:e85084.

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