

International Journal of Population Data Science

Journal Website: www.ijpds.org



Child Mental Health Service Use Following a Mother's Assault or Homicide: A Population-Based Matched Cohort Study

Lavina Matai¹, Barbara Haas², Xuesong Wang¹, Hilary Brown³, Marissa Fazio⁴, Sina Hadipour-Lakmehsari⁵, Sorina Andrei⁶, Laura MacLagan¹, Brandy Tanenbaum⁷, and Michael Lewis⁷

¹ICES, Toronto, Canada

²ICES, Toronto, Canada; Department of Surgery, University of Toronto, Toronto, Canada; Interdepartmental Division of Critical Care Medicine, University of Toronto, Toronto, Canada; Sunnybrook Research Institute, Toronto, Canada

³ICES, Toronto, Canada; Institute of Health Policy, Management and Evaluation, The University of Toronto, Toronto, Canada; Edwin S.H. Leong Centre for Healthy Children, University of Toronto, Toronto, Canada

⁴Child Health Evaluative Sciences, SickKids Research Institute, Toronto, Canada

⁵Institute of Health Policy, Management and Evaluation, The University of Toronto, Toronto, Canada

⁶Institute of Health Policy, Management and Evaluation, The University of Toronto, Toronto, Canada; Child Health Evaluative Sciences, SickKids Research Institute, Toronto, Canada

⁷Sunnybrook Research Institute, Toronto, Canada

Background

A mother's experience of violent injury represents a sentinel event with repercussions for her child's well-being. We aimed to measure and compare mental health service utilization among children exposed to a mother who experienced assault versus those unexposed.

Methods

We conducted a population-based matched cohort study of children (≤ 18 years) and their mothers residing in Ontario, Canada, 2005–2023. The main exposure was a mother's experience of assault-related injury, defined as any emergency department (ED) visit, hospitalization, or death during the child's lifetime. Children were age-, sex-, and maternal age-matched 1:4 to unexposed children. The main outcome was child mental health service utilization (outpatient, ED, or hospitalization) within the five years following the mother's injury. Modified Poisson regression models estimated adjusted rate ratios (aRRs) controlling for sociodemographic and health factors.

Results

There were 79,496 exposed and 315,755 unexposed children (52.5% male, median age at index 7 years [IQR 3–11]). Compared to those unexposed, exposed children had higher mental health service utilization across all settings including hospitalizations (2.9% versus 1.2%; aRR 2.02, 95% CI 1.85–2.20), ED visits (8.0% versus 3.8%; aRR 1.87, 95% CI 1.77–1.98), and outpatient visits for substance-use disorder (1.2% vs. 0.5%;

aRR 2.05, 95% CI 1.56–2.69).

Conclusion

Children exposed to maternal violent injury were at greater risk of mental health service utilization than unexposed children. Findings emphasize the ripple effects of violence on the children and the need for enhanced mental health support to children of mothers affected by violence.

