International Journal of Population Data Science

Journal Website: www.ijpds.org

# Perinatal Mental Illness in Those With and Without Pre-existing Diagnosis of ADHD: A Population-Based Study

Amreen Babujee[1], Hilary Brown[1], Jonathan Zipursky[1], Joel Ray[1], Eyal Cohen[1], Natasha Saunders[1], Alene Toulany[1], Tara Gomes[1], Lucy Barker[1], and Cindy-Lee Dennis[2]

[1]ICES, Toronto, Canada

[2]University of Toronto, Toronto, Canada

Attention Deficit Hyperactivity Disorder (ADHD) affects 1 in 50 women of reproductive age. The perinatal period is a time of heightened vulnerability to sleeplessness, stress and mental illness. Pre-pregnancy ADHD and adverse perinatal psychiatric outcomes is understudied. This population-based cohort study used health administrative data in Ontario, Canada, 2013–2023. Compared were 22,995 mothers with vs. 1,028,038 mothers without pre-pregnancy ADHD. The main outcome was a non-ADHD-related mental healthcare system contact from conception up to 365 days postpartum. Secondary outcomes included contacts for specific psychiatric disorder subtypes (anxiety, bipolar, depressive, psychotic, substance/alcohol use disorders), and for severe psychiatric illness (psychiatric ED visits, hospitalizations, intentional self-injury). Relative risks (aRR) and 95% CI were adjusted for maternal age, parity, immigration status, income quintile, rurality, preconception mental illness, infant sex, and year of delivery. Pre-pregnancy maternal ADHD was associated with elevated aRR for mental health contact for any psychiatric disorder (1.35, 95% CI 1.33–1.38), all psychiatric disorder sub-types with aRRs ranging from 1.34 to 2.37, psychiatric ED visits (1.98, 95% CI 1.88–2.08) or hospitalizations (2.26, 95% CI 2.06-2.48), and intentional self-injury (2.16, 95% CI 1.88–2.49). Pre-pregnancy maternal ADHD is a risk factor for various forms of perinatal mental healthcare contact, highlighting the need for targeted supports and services to enhance prevention and early identification in this vulnerable group.

https://doi.org/10.23889/ijpds.v11i5.3512