
Postpartum Depression Risk Factors for Mothers with History of Substance Use

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Introduction: There is increased vulnerability to depression and substance use during both pregnancy and postpartum periods. We showed that mothers with serial early prenatal substance use screening had decreased substance use by the end of their pregnancy, and their infants had decreased diagnosis of Neonatal Opioid Withdrawal Syndrome (NOWS).

Hypothesis: To test the hypothesis that mothers with history of substance use have additional risk factors that further increases their predisposition towards postpartum depression.

Methods/design: A retrospective cohort study of mothers with a history of substance use and their infants using clinic and hospital data from 1/2015 to 12/2017. The Edinburgh Postpartum Depression Scale Scores (EPDS) were collected at delivery hospitalization, 2 weeks(wks) and 6 wks postpartum. Maternal and infant characteristics were also collected. For analysis, mothers were divided into two groups based on their highest EPDS at any of the three time points: <12 vs. ≥ 12 .

Results: Of the 217 mothers with completed EPDS, 21% had EPDS ≥ 12 . Mothers w/EPDS ≥ 12 had lower income, lower employment and higher public insurance. Comparing prenatal and postpartum medications w/ EPDS, we found SSRI intake increased by 80% in mothers w/ EPDS ≥ 12 (21.7% vs. 39.1%) and Benzodiazepines decreased by 71% in mothers w/ EPDS < 12 (8.2% vs. 2.4%). NOWS infants of mothers w/ EPDS ≥ 12 had higher median length of stay compared to NOWS infants of mothers w/ EPDS < 12 (23 vs.15 days). We found significant risk factors for EPDS ≥ 12 : mothers with h/o postpartum depression had a 77-fold increase compared to mother with no psychiatric diagnosis; mothers of NOWS infants had almost 3-fold increase compared to mothers with well infants; and mothers on postpartum psychiatric medications had a 4.4-fold increase compared to mothers w/ no postpartum psychiatric medications.

Conclusions: We identified socioeconomic factors, psychiatric comorbidities and treatment, infants with diagnosis of NOWS and their LOS as postpartum depression risk factors for mothers with a history of substance use. Further prevention strategies should include, close postpartum and infant follow up, screening and treatment of depression, and reliable parenting skills.