

Association between postnatal mental health-related hospitalisation and child development and education outcomes: Systematic review and meta-analysis

Abstract

This study consolidates existing knowledge regarding the association between postnatal maternal mental health-related hospitalisation and childhood development and education outcomes. We conducted a thorough search across MEDLINE, PsycINFO, CINAHL, Scopus, Embase, Google Scholar, and a reference list of accessed papers. A weighted random-effects meta-analysis and a sub-group analysis were conducted following the detection of heterogeneity. After Egger's test, a trim and fill analysis was executed, and the funnel plot indicated publication bias. We accessed 12 studies ($n = 536,471$), indicating children whose mothers with postnatal mental health-related hospitalisation had 54% higher pooled odds of developmental vulnerability in any domain (Pooled Odd Ratio (POR) = 1.54, 95% CI; 1.17-1.90), and 26% higher pooled odds in the social domain (POR = 1.26, 95% CI; 1.18-1.35) compared to children whose mothers did not have such hospitalisation. Children whose mothers experienced postnatal mental health-related hospitalisation had elevated pooled odds of below-average academic performance on any measure (POR = 1.85, 95% CI 1.22-2.48), in spelling (POR = 1.48, 95% CI; 1.01-1.95), and in writing (POR = 1.37, 95% CI; 1.04-1.70) compared to children whose mothers did not have such hospitalisation. Children whose mothers experience postnatal mental health-related hospitalisation are at increased risk of vulnerability in any domain of development and below-average academic performance in any measure of educational areas. Early screening and treatment for mothers experiencing mental health-related conditions, social support, and access to perinatal mental health services are necessary to enhance the developmental and educational outcomes of children.