

Association between Hypertensive Disorders of Pregnancy and the Development of Offspring Mental and Behavioural Problems: Systematic Review and Meta-Analysis

Authors : Berihun Dachew, Abdullah Mamun, Joemer Maravilla, Rosa Alati

Abstract : Background: Hypertensive disorders of pregnancy are a major cause of maternal and childhood morbidity and mortality worldwide. However, its effect on offspring mental and behavioural disorders is unclear. Aims: The aim of this study was to provide the best scientific evidence regarding the association between hypertensive disorders of pregnancy and offspring mental and behavioural problems. Methods: We systematically searched Scopus, PubMed, Cochrane, EMBASE, CINAH and PsycINFO databases. A total of 23 studies (11 included in meta-analysis) were identified. A qualitative analysis was conducted by summarizing, comparing, and contrasting the abstracted data for all included studies. For quantitative analysis, relative risk (RR) with 95% confidence interval (95% CI) was used as pooled effect size. Heterogeneity was assessed by measuring Cochran's Q and I² test statistics. Results: Of the 23 studies included in this review, 15 studies found that hypertensive disorders of pregnancy had a negative impact for at least one mental or behavioural problem. The pooled effect of 11 studies included in the meta-analysis showed that preeclampsia was associated with increased risk of offspring schizophrenia (RR=1.37; 95% CI, 1.08-1.72). Conclusions: Intrauterine exposure to pre-eclampsia increased the risk of schizophrenia among offspring. However, we found inconclusive finding on the effect of hypertensive disorders of pregnancy and other mental and behavioural problems. Further high quality, large sample, mother child cohort studies are needed to further progress this area of research.

Keywords : behavioural disorders, hypertensive disorders of pregnancy, mental disorders, offspring

Conference Title : ICMH 2018 : International Conference on Mental Health

Conference Location : Sydney, Australia

Conference Dates : January 29-30, 2018