

O50. Trajectories of maternal depressive symptoms during pregnancy and infant wheezing up to two years of age: a prospective cohort study

Background: Maternal depressive symptoms during pregnancy have been associated with infant wheezing. Previous studies, however, did not take timing of exposure and trajectories of wheezing in childhood into account. We aimed to determine whether patterns of maternal depressive symptoms are associated with trajectories of wheezing up to 2 years of age.

Methods: This study was embedded in the PRegnancy and Infant DEvelopment (PRIDE) Study, a prospective cohort study among pregnant women and their offspring. Women with a delivery in 2012-2019 completed web-based questionnaires throughout pregnancy and during childhood. Maternal depressive symptoms were assessed using the Hospital Anxiety and Depression Scale and the Edinburgh Depression Scale at enrollment and in gestational weeks 17 and 34. Group-based trajectory modelling was used to identify women with similar patterns of depressive symptoms and children with similar patterns of wheezing. Risk ratios (RRs) with 95% confidence intervals (CIs) were estimated for the associations between trajectory groups of depressive symptoms and wheezing. We adjusted for a sufficient set of confounders and weighted using inverse probability of censoring weights.

Results: Among the 5833 women included, four distinct trajectories of depressive symptoms during pregnancy were identified, as well as 5 trajectories of wheezing in the first 2 years of life. We observed an association between maternal depressive symptoms in mid-pregnancy (RR 1.30, 95% CI 1.05-1.63) and late pregnancy (RR 1.35, 95% CI 1.07-1.70) and infant wheezing up to 6 months. The trajectory of a steady increase of depressive symptoms throughout pregnancy was associated with infant wheezing between 12 and 18 months (RR 1.45, 95% CI 1.05-2.00). We did not identify associations for other exposure-outcome combinations.

Conclusion: Maternal depressive symptoms in mid- and late pregnancy may be a risk factor for the development of infant wheezing. Monitoring of depressive symptoms throughout pregnancy by healthcare providers is recommended.