

Trajectories of sleep quality from late pregnancy to 36 months postpartum and association with maternal mood disturbances: a longitudinal and prospective cohort study

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Abstract

Study Objectives

To examine trajectories of poor sleep quality from late pregnancy to 36 months postpartum, baseline indicators, and association with prospective maternal mood disturbances.

Methods

A cohort of 262 nonclinical women was followed at late pregnancy, 42 days, 3, 6, 9, 12, 18, 24, and 36 months postpartum. Sleep quality was measured with the Pittsburgh Sleep Quality Index at all time points, and mood disturbances were assessed at late pregnancy and 36 months postpartum.

Results

The rate of poor sleep quality followed an inverted U-shaped curve. Women reporting poor sleep quality at late pregnancy held a consistently higher risk of poor sleep quality at postpartum points. Three sleep trajectories were distinguished, namely, the stable–low (29.4%), the decreasing–mild (56.5%), and the stable–high (14.1%). Poor sleep quality, depression, and anxiety at baseline were linked to trajectory groups with poorer sleep quality. Adjusting for covariates, the trajectory of the poorer sleep quality group demonstrated increased mood disturbances at 36 months postpartum. Replicating the analyses in women without baseline symptoms of depression and anxiety above clinical cutoffs obtained similar results.

Conclusions

Women are vulnerable to poor sleep quality from late pregnancy to postpartum years, but follow distinct trajectories. Poor sleep quality, depression, and anxiety at late pregnancy help us to anticipate the sleep trajectories. Trajectories of poor sleep quality indicate increased mood disturbances at 36 months postpartum. A flexible suite of interventions targeting both poor sleep quality and mood disturbances should be implemented and tailored to women in the prenatal and postpartum periods.

[sleep quality](#), [trajectories](#), [pregnancy](#), [postpartum](#), [mood disturbances](#)

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