

MAGNITUDE AND CHRONICITY OF CHANGES IN SLEEP QUANTITY AND QUALITY ARE ASSOCIATED WITH POSTNATAL DEPRESSION

Sweeney BM¹, Signal TL¹, Paine S-J¹, Muller D¹, Priston M¹, Huthwaite M², Lee K³, Gander PH¹

¹Sleep/Wake Research Centre, Massey University, Wellington, New Zealand

²University of Otago, Wellington, New Zealand

³University of California, San Francisco, USA

Introduction: Depression is common in postpartum women, and the relationship between altered perinatal sleep and mood is increasingly being elucidated. However, the magnitude and chronicity of sleep changes that affect postnatal mood has received scant attention.

Methods: Women (n=316 Māori, mean age 28.9 years; n=635 non-Māori, mean age 32.2 years) completed comprehensive sleep, physical and mental health questionnaires during the third trimester of pregnancy (T2), and at 3-8 weeks (T3) and 11-13 weeks postnatal (T4). Pre-pregnancy sleep variables (T1) were reported retrospectively at T2. Symptoms of postnatal depression (PND) were assessed using the Edinburgh Postnatal Depression Scale (EPDS). Adjusting for demographics factors (maternal age, ethnicity and socioeconomic deprivation) and key risk factors (prenatal depression, stressful life events and relationship dissatisfaction), hierarchical regression was used to assess the relationship between sleep variables and depression scores at T4.

Results: On average, sleep duration and quality were highest before pregnancy, lowest in late pregnancy and did not return to non-pregnant levels by 3 months postpartum. There were no differences in depression scores by demographic factors. The prevalence of PND was 7.8% of this sample (EPDS ≥ 13) and scores ranged from 0 to 25. Postnatal sleep duration was independently related to symptoms of PND ($\beta = -.390$, $p < .001$). Postnatal sleep quality was also independently associated with symptoms of PND ($\beta = -.398$, $p < .001$). Higher depression scores were associated with shorter and poorer quality sleep, and were seen among women whose sleep continued to decline after birth, or whose sleep changes across time were large.

Conclusion: Large changes from habitual sleep, or continued declining sleep quantity and quality into the postpartum period, were associated with higher depression scores. The relationship between perinatal sleep and depression Enquiring about sleep is straight forward and clinically important when screening for and attending to PND.

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