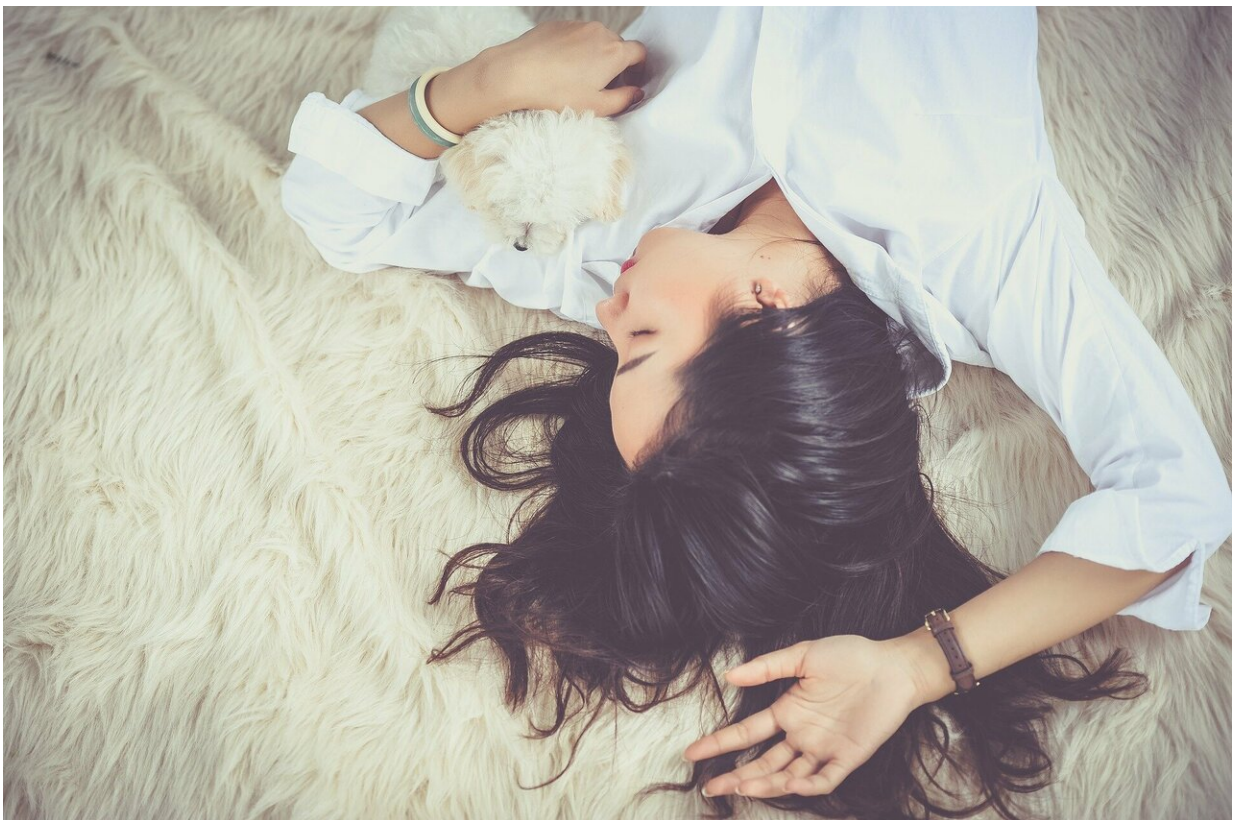


Changes in sleep and biological rhythms from late pregnancy to postpartum linked to depression and anxiety

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A set of parameters including sleep and biological rhythm variables are closely associated with the severity of depressive and anxiety symptoms,

starting in the third trimester of pregnancy to the third postpartum month, according to a new study.

The three-month period before and after giving birth is a vulnerable time for women's mental health. It is estimated that 15 to 18 percent of women experience anxiety and seven to 13 percent experience depression during this peripartum period. In addition, nearly 10 percent of women experience clinical levels of comorbid anxiety and depression during this time.

In the largest observational study to date investigating changes in sleep and biological rhythms during the peripartum period, researchers identified several variables that are linked to depression and anxiety. Most notably, changes in the circadian quotient (the strength of the circadian rhythms), the average amount of activity during nighttime rest, and the amount of fragmentation of nighttime rest were strongly linked to higher depressive and [anxiety symptoms](#).

"Our findings highlight the importance of stabilizing the internal biological clock during the peripartum period to maintain healthy mood and minimize [anxiety](#)," said Benicio Frey, senior author of the study and professor in the department of psychiatry and behavioral neurosciences at McMaster University.

"Given the findings, future efforts should be made to standardize evidence-based interventions targeting these biological rhythms variables identified by our team, either as treatment or prevention strategies."

Frey and his research team conducted the study from the Women's Health Concerns Clinic at St. Joseph's Healthcare Hamilton. This clinic specializes in psychiatric disorders during the peripartum, premenstrual, and perimenopausal periods.

Researchers recruited 100 women, 73 of whom they followed from the start of the third trimester to three months postpartum. They analyzed subjective and objective measures of sleep, biological rhythms, melatonin levels, and light exposure using a variety of tools, including questionnaires, actigraphs (wearable sleep monitors), laboratory assays, and other methods.

Interestingly, the findings indicate that certain [biological rhythms](#) variables may be important to [depressive symptoms](#) at specific points along the peripartum timeline. For instance, higher fragmentation of nighttime rest was linked to a decrease in depressive symptoms at six to 12 weeks postpartum—a [period](#) that tends to coincide with a higher risk of developing postpartum depression.

More information: Anastasiya Slyepchenko et al, Longitudinal Changes in Sleep, Biological Rhythms, and Light Exposure From Late Pregnancy to Postpartum and Their Impact on Peripartum Mood and Anxiety, *The Journal of Clinical Psychiatry* (2022). [DOI: 10.4088/JCP.21m13991](#)

Provided by McMaster University

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