

alpha values during habitual sleep (0–6 hours before habitual wake-up time) than controls (respectively, 1.18 ± 0.22 and 1.12 ± 0.22).

Conclusion: Unmedicated women at the onset of MDD had altered circadian motor activity patterns, as indexed by higher amplitude particularly during daytime while awake, less stable 24-h activity rhythms, and highly correlated activity patterns during sleep that closely resemble those typically occurring during wakefulness. These findings suggest that MDD per se may be associated with impaired rest-activity profiles. Ultimately, the use of wearable devices might hold important prospects for the early detection of individuals at risk for mood disorders.

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SLEEP AND MENTAL HEALTH IN NEW MOTHERS WITH A HISTORY OF DEPRESSION: PRELIMINARY DATA FROM LATE PREGNANCY TO 1-MONTH POSTPARTUM

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Introduction: Perinatal women report more sleep disruptions than non-pregnant women. This phenomenon is exaggerated among women with a history of depression, as sleep complaints are one of the most frequent symptoms of depression. Understanding the change in sleep and mental health from late pregnancy to postpartum may provide insights into prevention and intervention. Presented here are preliminary data from new mothers regarding sleep and mental health.

Methods: Preliminary examination of sleep and psychological data from 22 women enrolled in a study to assess the efficacy of the SNOO on infant and maternal sleep during the first 6 months of life. Participants were eligible if they had a history of, but no active depression as assessed by the Edinburgh Postnatal Depression Scale (EPDS). Data are from late pregnancy and at 1-month postpartum. Questionnaires included the Pittsburgh Sleep Quality Index (PSQI), Insomnia Symptom Questionnaire (ISQ), Epworth Sleepiness Scale (ESS), Flinders Fatigue Scale (FFS), and the Generalized Anxiety Disorder scale (GAD). Paired t-tests or chi-square tests were used to assess change over the first month postpartum. Linear regressions were done to determine whether sleep in late pregnancy was associated with depression and anxiety scores.

Results: Participants were 30 ± 2.2 years of age and 72.7% were White. In the first month postpartum, sleep was negatively impacted. Clinical insomnia increased (4 (18.2%) vs 5 (22.7%); $X^2 = 7.61$, $p = .006$), sleep quality (PSQI) worsened (6.13 ± 3.54 vs 8.89 ± 3.54 ; $t = -3.03$, $p = .006$), daytime sleepiness was higher (4.77 ± 2.51 vs 6.64 ± 3.44 ; $t = -3.31$, $p = .003$), and fatigue was greater (9.55 ± 4.73 vs 13.36 ± 5.86 ; $t = -3.21$, $p = .004$). Likewise, depression and generalized anxiety increased (p 's < .01). Insomnia in late pregnancy was associated with more depression ($\beta = .542$, $p = .009$) and more anxiety ($\beta = .510$, $p = .015$).

Conclusion: Pregnant women with a history of depression are at risk for more sleep disturbances, and therefore more likely to be at significant risk for a recurrent depressive episode. Improving sleep in the perinatal period could have a positive impact.

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DOES OBSTRUCTIVE SLEEP APNEA INCREASE SUICIDALITY IN PATIENTS WITH BIPOLAR DISORDER?

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Introduction: Bipolar disorder (BPD) is associated with suicidality in adult population. There are several risk factors for suicide, however the relationship between Obstructive Sleep Apnea (OSA) and suicidality in patients with BPD has not been explored. Hence, we decided to perform this study with primary objective of comparison of suicidality by OSA diagnosis in patients with BPD.

Methods: We used inpatient hospitalization data from National Inpatient sample dataset year 2016–2018. Our primary population (BPD + OSA) was composed of adult patients admitted to the hospital with the primary diagnosis of Bipolar Disorder and secondary diagnosis of Obstructive sleep apnea. Age-gender matched (1:4 matching) control population was selected with primary diagnosis of BPD having no OSA (BPD-OSA). Data on suicidality (suicidal ideation/attempt) were collected and compared between the groups using logistic regression analysis methods by including OSA, age, gender, race, substance use disorder and personality disorder as predictors.

Results: From the dataset, 17895 patients were obtained for the BPD + OSA group (average age: 50.5 years, male 45.5%). After 1:4 age-gender matching, 71575 patients were included in the BPD-OSA group. In the unadjusted analysis, suicidal ideation was significantly high BPD+OSA group compared the BPD-OSA group (38.4% vs. 31.9%, $p < 0.001$). Rate of suicide attempt and self-inflicted injuries were similar in two groups (3.5% vs. 3.3%, $p = 0.27$). In the adjusted logistic regression analysis odds of suicidality were 36% more in BPD+OSA group compared to BPD-OSA (Odds Ratio: 1.36, 95% Confidence interval: 1.25–1.48, $p < 0.001$).

Conclusion: In adult patients with BPD, diagnosis of OSA significantly increases the odds of suicidality. Addressing OSA in patients with BPD, can improve management, and potentially reduce the incidence of suicide. We believe our study will be helpful in guiding future research and development on this issue.

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ASSOCIATIONS BETWEEN DEPRESSION AND GUIDELINES MET FOR PHYSICAL ACTIVITY AND SUFFICIENT SLEEP IN AN INTERNATIONAL SAMPLE

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Introduction: Physical activity (PA) and sleep both influence symptoms of depression. Here we explored relationships between guidelines met for physical activity and sleep and how this related to depression scores.

Methods: N=23,663 respondents (age range 18–98, mean age 40.1y, 51% female) completed the 10-item Harvard Department of Psychiatry National Depression Screening Day Scale (HANDS) online during one week in October from 2018–2020. Higher total scores on the HANDS indicated a higher likelihood of major depressive episode. Additional questions were added to the survey including questions on sleep duration and moderate to strenuous PA. The cut-off guidelines for PA were 150 weekly minutes and 7-9h of sleep per night. We categorized the sample based on those who met PA guidelines or not and whether respondents had short sleep duration (9h), or met the sleep guidelines (7-9h).

Results: One-way ANOVA revealed differences between the groups on HANDS depression score $F(5,23657)=262.5$, $p < 0.001$. Nearly half of the sample did not meet both PA guidelines or sleep guidelines of