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**THE RELATIONSHIPS BETWEEN MOOD, SLEEP AND FEMALE REPRODUCTIVE STATES**

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**Introduction:** Sleep is disrupted in depressed subjects; it also deteriorates with age and with the transition to menopause. The nature of the inter-relationship between mood, sleep, age and reproductive state is not well-defined.

**Objectives:** To evaluate the relationships between mood and sleep among healthy women in different reproductive states.

**Methods:** We analyzed data from 11 young (20–26 years), 21 perimenopausal (43–51 years) and 29 postmenopausal (58–71 years) healthy Finnish women. Mood was assessed with the Beck Depression Inventory (BDI), subjective sleep quality with the Basic Nordic Sleep Questionnaire (BNSQ), and objective sleep with all-night polysomnography (PSG) recordings.

**Results:** Among young women, less arousals associated with higher BDI total scores ( $p=0.026$ ), and higher SWS percentages with more dissatisfaction ( $p=0.001$ ) and depressive-somatic symptoms ( $p=0.025$ ), but with less depressive-emotional symptoms ( $p=0.001$ ). Also, less awakenings either from REM sleep or SWS associated with more punishment ( $p=0.005$ ;  $p=0.036$ ), dissatisfaction ( $p<0.001$ ;  $p=0.001$ ) and depressive-somatic symptoms ( $p=0.001$ ;  $p=0.009$ ), but with less depressive-emotional symptoms ( $p=0.002$ ;  $p=0.003$ ). In perimenopause, higher BNSQ insomnia scores ( $p=0.005$ ), lower sleep efficiencies ( $p=0.022$ ) and shorter total sleep times ( $p=0.024$ ) associated with higher BDI scores, and longer sleep latencies with more depressive-somatic symptoms ( $p=0.032$ ). In postmenopause, higher REM percentages associated with higher BDI total scores ( $p=0.019$ ) and more depressive-somatic symptoms ( $p=0.005$ ), and longer SWS latencies with more depressive-somatic symptoms ( $p=0.030$ ).

**Conclusions:** Depressive symptoms associated with sleep impairment in perimenopausal and postmenopausal women. In young women, specific BDI factors revealed minor associations, suggesting different types of sleep impairment in relation to different depressive features.