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**Category:** Travail de recherche / Research work

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**Title:** A Cross-Sectional Study of Factors Associated with Sleep Disturbance in Systemic Sclerosis: A Scleroderma Patient-centered Intervention Network (SPIN) Cohort Study

**Objective(s):** Previous studies have reported that the majority of people with systemic sclerosis (SSc; scleroderma) experience sleep disturbances that impair their function on a daily basis, but this has been based on non-validated single-item measures. No studies have compared SSc sleep disturbance scores to general population norms. Our objectives were to (1) compare levels of patient-reported sleep disturbances in SSc to general population norms and (2) identify disease factors associated with sleep disturbance.

**Method(s):** This international cross-sectional study included participants from the Scleroderma Patient-centered Intervention Network Cohort (SPIN) who completed sleep disturbance measures (Patient Reported Outcomes Information System-29 profile version 2.0) as part of baseline assessments. Sleep scores were compared to US general population norms (mean = 50, SD = 10). Associations of sleep disturbance with SSc-related variables, controlling for sociodemographic and lifestyle variables, were assessed using multiple linear regression. Continuous predictor variables were standardized in models.

**Result(s):** We included 1499 participants who had complete data for all model variables. Mean sleep disturbance scores in SSc were higher than in the US general population (mean difference = 2.1, 95% confidence interval [CI] 1.48 to 2.72). Higher sleep disturbance scores in SSc were independently associated with the presence of esophageal (1.17 points, 95% confidence interval [CI] 1.63 to 4.12) and intestinal gastrointestinal involvement (1.30 points, 95% CI 0.38 to 2.22), pain (3.19 points per standard deviation [SD], 95% CI 2.74 to 3.66), pruritus (1.08 points per SD, 95% CI 0.66 to 1.51), smoking (1.54 points, 95% CI 0.28 to 3.27) and higher BMI scores (0.87 points, 95% CI 0.44 to 1.24). Sleep disturbance scores were not significantly associated with any overlap syndromes.

**Conclusion(s):** Sleep disturbance scores among people with SSc were only minimally higher than in the US general population. Nonetheless, those with significant gastrointestinal involvement, pain, pruritus and who are smokers or overweight may be vulnerable to sleep disturbances that warrant attention. Health care providers should work together with patients to identify and treat SSc manifestations associated with their sleep disturbances, particularly gastrointestinal symptoms and pain. Behavioral approaches that are effective in the general population may also help people with SSc to minimize the impact of sleep disturbances on function and quality.