

# Atopic Dermatitis and Sleep Disturbance among Adults: Cross-sectional Study of Patient-Reported Outcomes for Measuring Eczema Severity, Sleep Disturbance and Sleep-Related Impairment

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## ABSTRACT

This study was carried out to assess the correlation between atopic dermatitis disease severity, Sleep disturbance and Sleep-Related impairment in adult atopic dermatitis patients in King Khaled University Hospital (KKUH); a teaching facility with general and subspecialty medical services in King Saud University Medical City (KSUMC), Riyadh, Saudi Arabia. This study is a cross-sectional study targeting adults diagnosed with atopic dermatitis in KKUH. Patients visiting the dermatology clinic during the study period from May 2023 to September 2023 were asked to fill out a paper-based self-administered questionnaire to assess AD severity, Sleep disturbance and Sleep-related impairment using the Patient-Oriented Eczema Measure (POEM) tool and the Patient-Reported Outcomes Measurement Information System (PROMIS) Sleep Disturbance (SD) and Sleep-related impairment (SRI) instruments respectively. Only patients who fulfilled the inclusion criteria were included in the study. Data was analyzed using SPSS 22.0 version statistical software. A p-value < 0.05 was considered statistically significant. Among 763 participants with atopic dermatitis were included, 74.7 % were females. Allergic rhinitis, asthma, and sinusitis were the highest concomitant associations with atopic dermatitis. Only 17.56% of the participants have eczema without other associations. Almost two-thirds of the participants were within normal limits for sleep disturbance and sleep-related impairments. Eczema severity was proportionate to disease duration and the recent last flare-up. Sleep disturbance and sleep-related impairments were significantly correlated with eczema severity in all categories. As the high prevalence of Sleep disturbance and sleep-related impairment in AD, it is recommended to further study the subject and develop effective interventions to improve sleep and disease outcomes in individuals with AD.

**Keywords:** Atopic dermatitis; sleep disturbance; Sleep Quality; Sleep Related Impairment; eczema severity; adults

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