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## Gender Disparities in the Diagnosis of Sleep Disordered Breathing

Kenna Haile

Wayne State University, he6710@wayne.edu

Nesrine Ibrahim

Wayne State University

Safwan Badr

Apala Vaishnav

Wayne State University

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## Gender Disparities in the Diagnosis of Sleep Disordered Breathing

**Introduction:** Current diagnostic guidelines for sleep disordered breathing (SDB) require that apneas and hypopneas be accompanied by a 4% desaturation for it to constitute a respiratory event (AHI-Accepted). However, the American Academy of Sleep Medicine recommends expanding the diagnostic criteria to include apneas and hypopneas accompanied by a 3% desaturation or a cortical arousal for diagnosis (AHI-Recommended). We hypothesized that a clinical sample of both men and women would demonstrate that women are more likely to be misdiagnosed using the accepted criteria compared to the recommended criteria.

**Methods:** The clinical sample consisted of all patients receiving a PSG at the Detroit Medical Center Sleep Clinic in 2019. We used t-test calculations to analyze gender, BMI, AHI-R, and AHI-A.

**Results:** 286 Women and 158 Men were analyzed. For Women, the average AHI-R was 27.0 events/hr ( $\pm 27.4$ ), and AHI-A was 15.1 events/hr ( $\pm 21.4$ ). For Men, the average AHI-R was 47.1 events/hr ( $\pm 35.1$ ), and AHI-A was 32.5 events/hr ( $\pm 31.9$ ). 19.8% of women had an AHI-A greater than 15 compared to 35.3% of women when using AHI-R (15.5% increase). For men, 20.5% had an AHI-A greater than 15 compared to 27.4% when using AHI-R (6.9% increase).

**Discussion:** There was a significant difference between men and women when comparing AHI-A to AHI-R. Using the AHI-R criteria resulted in a greater increase in women being diagnosed with severe SDB compared to men. This indicates that using the recommended criteria benefits women to a greater extent than men.