

Sleep Watchers

Winter 2021/2022

Dear Colleague,

We hope this quarter's newsletter finds everyone in good health and spirits. As always we genuinely appreciate your support and look forward to continuing to help you improve the quality of life for your patients.

Please let us know if you would like to see a specific topic covered in our next issue. It is our goal to provide as much information as possible to better serve your patients. We appreciate the trust you place in us by allowing us to participate in the care of your patients.

Best Regards,

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Indiana Sleep Center

CPAP Adherence is Associated with Reduced Inpatient Utilization Among Older Adult Medicare Beneficiaries with Pre-existing Cardiovascular Disease

Emerson M Wickwire, M Doyinsola, et al.
J Clin Sleep Med 2022 Jan 1;18(1):39-45

The purpose of this study was to examine the impact of adherence to continuous positive airway pressure (CPAP) therapy on health care utilization

among a nationally representative and sample of older adults. Participants selected were older adults with multiple morbidities and pre-existing cardiovascular disease and subsequently diagnosed with obstructive sleep apnea in the United States. The authors' data source was a random 5% sample of Medicare administrative claims data. All participants (n = 1,921) were of age ≥ 65 years, diagnosed with cardiovascular disease and obstructive sleep apnea, and subsequently began treatment with CPAP between 2009-2013. Based on the number of CPAP machine charges, individuals were categorized as low, partial, or high adherers (ie, < 4 , 4-12, and > 12 CPAP charges, respectively). The impact of CPAP adherence status on health care utilization was assessed across multiple points of service, including outpatient encounters, inpatient stays, emergency department visits, and prescription fills over 24 months following CPAP initiation.

Significant differences in demographic and comorbid disease characteristics were observed between low adherers (n = 377), partial adherers (n = 236), and high adherers (n = 1,308). After adjusting for covariates and relative to low adherers, high adherers demonstrated reduced inpatient visits. *In this nationally representative sample of older Medicare beneficiaries with multiple morbidities and relative to low adherers, high adherers demonstrated reduced inpatient utilization.*

Sleep Quality and Duration are Associated with Greater Trait Emotional Intelligence

William D S Killgore, John R Vanuk, et al.
Sleep Health 2021 Nov 12

Prior work suggests that short sleep and total sleep deprivation are associated with reduced trait Emotional Intelligence (trait EI) but not reduced ability Emotional Intelligence (ability EI). To expand this knowledge base, the authors investigated the role of habitual sleep quality on trait and ability EI above and beyond the known effects of recent sleep duration. A large sample, comprising 477 healthy adults completed the Pittsburgh Sleep Quality Index (PSQI), Trait Emotional Intelligence Questionnaire (TEIQue);



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Sleep Quality...continued

trait EI), and Mayer-Salovey-Caruso Emotional Intelligence Scale (MSCEIT; ability EI).

Appropriated statistical analysis showed that recent sleep duration and PSQI sleep quality each independently predicted higher trait EI scores, including Emotionality, Self-Control, Sociability, and Well-being, but were unrelated to ability EI scores. In this large community sample, recent sleep duration and habitual sleep quality both independently associated with self-perceived dispositional aspects of EI (ie, trait EI). In contrast, recent sleep duration and PSQI score were unrelated to more crystallized aspects of EI performance, which encompass the general fund of emotional information and the ability to understand and reason about emotional concepts (ie, ability EI). *The authors concluded that greater self-perceived sleep duration and quality was associated with subjective perceptions of better emotional functioning, but was unrelated to performance-based metrics of emotional reasoning.*

Teens Not Getting Enough Sleep May Consume 4.5 Extra Pounds of Sugar During a School Year

Science Daily January 7, 2022-- Brigham Young University
Duraccio KM, Krietsch KN, et al.

Prior research has linked lack of sleep to increased risk for poor mental health, poor academic performance, and behavioral problems. But new research from BYU says insufficient sleep also increases the risk of weight gain and other cardiometabolic diseases among teenagers because teens have worse dietary habits when they sleep less. Shortened sleep increases the risk for teens to eat and drink more carbs and added sugars. This research, which was recently published in the medical journal SLEEP, analyzed the sleeping and eating patterns of 93 teenagers during two sleep conditions: spending six and a half hours each night in bed for one week (short sleep) and spending nine and a half hours each night in bed for another week (healthy sleep). Researchers measured the caloric intake, macronutrient content, food types, and the glycemic load of foods eaten by teens.

The results found that teenagers undergoing short sleep consumed more foods that were likely to spike blood sugar fast. These changes largely occurred in the late evening (after 9:00

pm). Teens getting short sleep also ate fewer fruits and vegetables across the entire day, compared to healthy sleep. The authors found that getting less sleep didn't cause teens to eat more than their peers getting healthy sleep; both groups consumed roughly the same amounts of calories of food. The investigators believe that tired teens are looking for quick bursts of energy to keep them going until they can go to bed. *The research found that teens in short sleep consumed 12 extra grams of sugar each day. With most teenagers not getting sufficient sleep during the 180 nights of a school year, an extra 12 grams of added sugar each day could result in over 4.5 pounds of extra sugar each year. The authors believe that sleep health should be incorporated into all prevention and intervention modules for child obesity.*

Sleep-Disordered Breathing Tied to Insulin Resistance in Pregnancy

Physician's Weekly Podcast-- Dr. Rachel Giles--Jan 10, 2022
(HealthDay News)

Maternal sleep-disordered breathing (SDB) is associated with insulin resistance in early pregnancy, according to a study published online Jan. 6 in SLEEP. Laura Sanapo, M.D., from the Miriam Hospital in Providence, Rhode Island, and colleagues examined the association between maternal SDB and glucose metabolism among women with body mass index (BMI) ≥ 27 kg/m² with singleton pregnancies. The associations were examined among 192 pregnant women, with a median BMI of 35.14 kg/m², who underwent an in-home sleep study and homeostatic model assessment (HOMA) at 11.14 and 15.35 gestational weeks, respectively.

The researchers found that after adjustment for covariates, the respiratory event index (REI) and oxygen desaturation index as continuous variables of SDB were associated with HOMA-insulin resistance (IR). After adjustment for BMI, an obstructive sleep apnea diagnosis (REI value: more than five events per hour) was not associated with HOMA-IR. There was no association observed for any of the parameters with β -cell function. *"Among pregnant women with overweight and obesity, objectively determined SDB is associated with an increase in insulin resistance, but not insulin secretion, in early pregnancy, after controlling for multiple factors," the authors write. "Further studies are needed to further investigate the association and its impact on the development of gestational diabetes."*



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