

# Study shows that bedtime regularity predicts CPAP compliance

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A new study suggests that regularity of bedtime prior to initiation of continuous positive airway pressure (CPAP) therapy is an important factor that may influence treatment compliance in adults with obstructive sleep apnea (OSA).

Results show that bedtime variability was a significant predictor of CPAP adherence, which was defined as four or more hours of treatment use per night. The odds of one-month CPAP non-adherence were 3.7 times greater for every one unit increase in habitual, or pre-treatment, bedtime variability.

"Long-term use of CPAP, such as after the first month or longer, requires regular routines that are conducive to establishing a new [health behavior](#)," said principal investigator Amy M. Sawyer, PhD, RN, assistant professor at Penn State University School of Nursing in University Park, Pa."

The research abstract was published recently in an online supplement of the journal [Sleep](#), and Sawyer will present the findings Wednesday, June 5, in Baltimore, Md., at SLEEP 2013, the 27th annual meeting of the Associated Professional Sleep Societies LLC.

The study group comprised 97 adults with newly diagnosed OSA. Bedtime variability was derived from a seven-day sleep diary completed by each participant before CPAP treatment and one-month CPAP adherence was based on objective data collected from each CPAP

device.

According to the authors, the study was not designed to test the effect of bedtime consistency on CPAP use. However, the results do suggest that regularity of bedtime may be a new opportunity for health scientists and [health care providers](#) to address the problem of non-adherence to CPAP.

"Our results suggest that CPAP use is associated with stable bedtime schedules," said Sawyer. "By stabilizing bedtime schedules, or promoting consistency in [bedtime](#) patterns and routines prior to initiating CPAP treatment, adherence may improve."

The American Academy of Sleep Medicine reports that obstructive [sleep apnea](#) is a common sleep illness affecting at least four percent of men and two percent of women. It involves repetitive episodes of complete or partial upper airway obstruction occurring during sleep despite an ongoing effort to breathe. The most effective [treatment](#) option for OSA is CPAP therapy, which helps keep the airway open by providing a stream of air through a mask that is worn during sleep.

**More information:** Abstract: "Sleep schedule and CPAP adherence: Is regularity of pre-treatment bedtime influential on CPAP adherence?"

Provided by American Academy of Sleep Medicine

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