

period is very poor, and the sleep duration was seriously insufficient. Emotional labor strategies moderated the relationship between work rumination and sleep quality. Nursing managers need to pay attention to the sleep of nurses during this period, adjust the training content in a timely manner to relieve their stress, help regulate their psychological state, distinguish work from life, and ultimately improve their sleep quality.

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##### ENHANCING PEDIATRIC SLEEP HEALTH: DEVELOPMENT OF AN INTERDISCIPLINARY EDUCATIONAL COURSE FOR PRIMARY CARE AND SLEEP MEDICINE PROVIDERS

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**Introduction:** Pediatric sleep disorders are common, underrecognized contributors to behavioral, cognitive, and physical health problems in children. While pediatric sleep medicine is a growing field, most primary care and general sleep medicine providers receive minimal training in pediatric-specific sleep assessment and management. To address these gaps, the American Academy of Sleep Medicine (AASM), in collaboration with eight pediatric sleep medicine experts and AASM education staff, developed a targeted educational course to build knowledge and clinical confidence in this area.

The course was designed using evidence-based instructional practices grounded in adult learning theory, which emphasizes learner self-direction, practical application, and integration with prior experience (Knowles, 1980; Merriam & Bierema, 2014). Development followed best practices in curriculum design, including needs assessment, goal alignment, and iterative content review (Harden, 2000). AASM staff with formal training in instructional design and adult education played an integral role in shaping the structure, delivery, and accessibility of the course.

**Materials and methods:** Eight pediatric sleep practitioners from diverse clinical and academic settings collaborated with AASM instructional design staff to plan and create the course. A comprehensive needs assessment was conducted using member surveys, literature review, and feedback from AASM-accredited centers. The course was designed to be asynchronous, modular, and adaptable to various practice environments. It features didactic content, case-based learning, clinical algorithms, and downloadable decision-support tools. Key topics include behavioral insomnia, circadian rhythm disorders, sleep-disordered breathing, parasomnias, and appropriate referral strategies.

**Results:** The final course includes eight modules totaling approximately six hours of CME-accredited content. Each module is designed for flexible, self-paced engagement and includes evidence-based materials, real-world case vignettes, and practical tools for clinical use. Content is tiered to accommodate varying levels of experience among learners and emphasizes actionable strategies for screening, diagnosis, management, and interdisciplinary collaboration.

**Conclusions:** This collaborative initiative highlights the effectiveness of combining clinical expertise with professional instructional design to create relevant, high-impact education for healthcare providers. By addressing critical knowledge gaps in pediatric sleep medicine, the course serves as a scalable model for cross-disciplinary learning. Future efforts will focus on evaluating learner outcomes, updating content based on emerging evidence, and expanding access to a broader provider audience. This effort supports the AASM's mission to promote high-quality sleep care and improve outcomes for children and families

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##### ENVIRONMENTAL SLEEP DISRUPTORS: THE ROLE OF THERMAL COMFORT AND CO<sub>2</sub> LEVELS

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**Introduction:** Sleep is a vital physiological process essential for physical recovery, cognitive function, and emotional balance. Its quality is influenced not only by individual and behavioral factors but also by environmental conditions in the sleep setting. Among these, thermal comfort and indoor air quality, particularly ambient temperature and carbon dioxide (CO<sub>2</sub>) concentration, are increasingly recognized as important modulators of sleep architecture and continuity. Suboptimal thermal conditions and elevated CO<sub>2</sub> levels may impair sleep efficiency, reduce total sleep time, and increase the frequency of nocturnal awakenings. This study presents preliminary data from the HypnosAir Project ([www.hypnosair.com](http://www.hypnosair.com)), which investigates the impact of indoor environmental conditions on sleep quality.

**Materials and methods:** Participants were recruited through convenience sampling and met strict inclusion criteria: age between 25 and 45 years, healthy, non-smokers, and free of diagnosed sleep, cardiovascular, respiratory, neurological, or psychiatric disorders. Female participants were included only if they were not pregnant, breastfeeding, menstruating, or in peri- or post-menopausal stages.

Each participant underwent continuous monitoring over seven consecutive days and nights between February and April 2025. Sleep was assessed using actigraphy, while environmental conditions—temperature, relative humidity, and CO<sub>2</sub> concentration, were measured continuously in the bedroom environment. A total of 295 nights were analyzed. Sleep parameters included total sleep time (TST), sleep onset latency (SO), wake after sleep onset (WASO), number of awakenings, and sleep efficiency (SE). Data analysis was performed using SPSS, applying descriptive statistics and multiple linear regression, with confirmation of Gauss-Markov assumptions.

**Results:** The average values observed were as follows: TST 447.85 ± 83.19 minutes, SO 41.84 ± 31.16 minutes, WASO 10.67 ± 14.81 minutes, number of awakenings 16.46 ± 9.90, and SE 89.39 ± 5.74%. Environmental measurements showed an average temperature of 19.72 ± 1.92 °C, relative humidity of 77.34 ± 7.00%, and CO<sub>2</sub> concentration of 1684.32 ± 925.61 ppm. Regression results indicated that a 1 °C increase in ambient temperature was associated with a 5.8-minute reduction in TST and 1.1 fewer awakenings per night. No statistically significant associations were observed between temperature and SO, WASO, or SE. Likewise, CO<sub>2</sub> concentration was not significantly associated with any sleep parameter in this preliminary analysis

**Conclusions:** These initial results suggest that thermal comfort, especially ambient temperature, has a measurable impact on sleep, particularly in reducing total sleep time and the number of awakenings. Although no significant effects of CO<sub>2</sub> were identified at this stage, ongoing data collection and analysis are expected to elucidate further the interplay between indoor environmental conditions and sleep physiology. These findings highlight the importance of considering environmental optimization as a component of sleep health promotion strategies.

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