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# Interprofessional Opportunities in Sleep Practice

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**Abstract**

Interprofessional education has the potential to prepare health career students to be practice-ready and enter the workforce with a collaborative mindset. Respiratory care educators must adequately prepare students to work in this capacity. This emphasis on a team approach to patient-centered care has the ability to impact and improve health outcomes. Throughout the last decade, sleep medicine has experienced fluctuations. Sustainability of sleep labs who only perform diagnostic testing may prove challenging. The role of interprofessional practice in sleep medicine would be to overcome traditional roles (silos) so that multiple skilled practitioners could help identify and treat complex patient conditions. A review of the literature demonstrated how various providers can serve as active members of interprofessional health care teams. The opportunity to expand services and partner with other providers to detect, educate, and treat sleep disordered breathing could help laboratories endure and even thrive in the current health care system.

**Keywords:** Interprofessional; Allied Health; Respiratory Care; Sleep Medicine

Mini Review

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## Introduction

The World Health Organization defines interprofessional practice (IPP) as "when multiple health workers from different professional backgrounds provide comprehensive services by working with patients, their families, caregivers and communities to deliver the highest quality of care across settings" [1]. If collaborative practice is the goal for how health care is to be delivered, then we should educate future generations of practitioners to deliberately "learn about, from and with each other" [1]. Interprofessional education (IPE) has the potential to prepare health career students to be practice-ready and enter the workforce with a collaborative mindset. Graduates of Commission on Accreditation for Respiratory Care (CoARC) accredited programs are expected to be able to function within interprofessional teams (Standard 4.05) [2]. Respiratory care educators must adequately prepare students to work in this capacity. The Commission on Accreditation of Allied Health Education Programs (CAAHEP) recognizes that polysomnography technologists "use sleep technology as part of a team" [3]. This emphasis on a team approach to patient-centered care has the ability to impact and potentially improve health outcomes.

## Discussion

### Changes in sleep practice

Throughout the last decade, sleep medicine has experienced fluctuations [4]. Home sleep testing (HST) is becoming more prevalent than its in-lab polysomnogram (PSG) counterpart. Third party payers are a driving force for what type of sleep testing is performed due to reimbursement. Payment is now based on patient outcomes as opposed to number of procedures performed. In-lab PAP titration studies are avoided by utilizing auto-adjusting PAP devices in the home [5]. Sustainability of sleep labs who only perform diagnostic testing may prove challenging. Therefore, establishing stronger more cooperative working relationships with various providers who can aid in the detection, screening, and referral of sleep disordered breathing (SDB) may help this essential component of medicine endure unpredictable times. Referrals for patients who have been screened for SDB or high risk conditions/occupations could lead to a greater number of sleep apnea diagnoses, expedited testing, and subsequently treatment. The role of IPP in sleep medicine would be to overcome traditional roles (silos) so that multiple skilled practitioners could help identify and treat complex patient conditions. When the appropriate testing and treatment occur sooner in the disease process, health care costs accumulated could be lowered, health outcomes could be enhanced, and greater patient/caregiver satisfaction could be achieved.

### Interprofessional opportunities

In an attempt to identify current interprofessional practices among various health care providers and sleep practitioners, a review of the literature was performed. Upon review, dental health professionals can play a key role in the detection of SDB and obstructive sleep apnea (OSA). Patients may be more likely to visit a dentist than a physician for an annual exam [6]. Dentists and physicians boarded in sleep medicine already have some ties due to the need for creating oral appliances used in the treatment of OSA. However, dental health professionals are also in a wonderful position to identify risk factors for OSA and oral clinical manifestations of the condition. These manifestations may include sleep bruxism (teeth grinding), xerostomia (dry mouth), and a scalloped tongue (due to macroglossia). Dental hygienists (DH) could administer the STOP-BANG questionnaire, determine the patient's Mallampati classification, or have the patient complete the Epworth Sleepiness Scale (ESS) after proper training. Based on the findings, the dentist could refer patients to their physician for sleep testing. Educating the patient on lifestyle modifications to maintain the integrity of the oral cavity and the patient's overall well-being is within the scope of practice for dental health professionals [7].

Psychologists/psychiatrists are another example of providers who could aid in the detection of SDB. Dr. Smith from Johns Hopkins University stated in a recent editorial that "the majority of patients with sleep disturbances seeking neurological, psychiatric, and psychological care for related disorders are rarely screened or treated for sleep disorders" [8]. We know deficient sleep, regardless of the cause, has extensive mental and physical implications on health. Patients that are seeking help with psychological issues such as depression, irritability, decreased concentration, or any increase in use of drugs or alcohol could benefit from sleep testing, especially if other risk factors are present. Neuromuscular disease (NMD) may be associated with a higher incidence of SDB [9]. Some of these conditions include ischemic stroke, Parkinson's disease, and amyotrophic lateral sclerosis (ALS). Routine screening, lung function testing, polysomnography, and treatment with noninvasive ventilation (NIV) are mainstays in NMD and could be facilitated by neurologists overseeing the care of these patients. Interprofessional referrals for PSG testing at earliest onset of symptoms could accelerate the time to treatment allowing for an improvement in sleep quality and a decrease in daytime symptoms.

We are also seeing an increase in the frequency of sleep testing pediatric patients. Though the majority of OSA occurrences in children can be reversed through the surgical removal of enlarged tonsils/adenoids, some of those younger patients have anatomic issues (naso-septal obstruction, micrognathia, retrognathia, obesity) that allow SDB to continue. Pediatricians and teachers who recognize things such as poor academic performance, increased accidental injuries, and difficulty remaining attentive could refer parents/guardians of those children for sleep testing [10]. Community pharmacists have the ability to recognize OSA risk factors and screen patients that frequent their pharmacies. Pharmacists have intimate knowledge concerning patient medications and often have good relationships with their clients. One study conducted in France resulted in an 85% positive sleep test for patients that were referred by community pharmacists after screening and consultation [11]. Lastly, athletic trainers could help identify risk factors for SDB in their players through screening and questionnaires. One study found an 8% prevalence of SDB among a group of Division 1AA collegiate football players [12]. Also, in athletes with mild traumatic brain injury (mTBI) with persistence sleep/wake disturbances, referral for a sleep consultation has been incorporated into the latest clinical practice guideline [13].

## Conclusion

These studies demonstrate how various providers can serve as active members of interprofessional health care teams. Change often brings opportunity. For sleep medicine, the opportunity to expand services and partner with other providers to detect, educate, and treat SDB could help laboratories endure and even thrive in the changes currently taking place in health care today.

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