129

Anatomical Approaches to Treating Obstructive Sleep Apnea in Patients who Fail CPAP: State of the Art Review

Phoebe Dijour, Mitchell Turley, Shri Prabha Shivram, Anders Sideris, Youseph Yazdi
Johns Hopkins University

OBJECTIVES/GOALS: The aim of this study was to evaluate current and new anatomical approaches to treating obstructive sleep apnea (OSA) in patients who fail continuous positive airway pressure (CPAP). Understanding the breadth of devices and procedures increases clinical scope of practice and innovator opportunities. METHODS/STUDY POPULATION: A comprehensive review of literature, FDA approvals, patents, and commercially available technologies was undertaken with regards to anatomical approaches for treating OSA. These include experimental therapies, surgical approaches, and non-surgical ablative procedures. Oral appliances, positive airway pressure devices, and therapeutics were excluded. Key search terms included obstructive sleep apnea,' anatomy,' surgery,' devices,' experimental therapy,' innovation,' technology,' and translational research.' Publications were limited to the last five years. Innovations were evaluated for relevance to OSA treatment and then assessed in greater depth based on scientific literature. RESULTS/ANTICIPATED RESULTS: Numbers of preclinical and commercially available innovations pertinent to the anatomical treatment of OSA were reported along with clinically relevant outcome metrics. The greatest number of innovations was found in surgical approaches, including soft-tissue removal, orthognathic surgery, and electrical stimulation. Outcome parameters included safety, efficacy, patient compliance, and mean disease alleviation as a ratio of efficacy to compliance. Innovations were grouped by their intended anatomical targets including retrolingual, palatal, oropharyngeal, epiglottic, nasal, and complete concentric collapse, making special note of gaps in the treatment armamentarium. DISCUSSION/SIGNIFICANCE: In the last decade, sleep surgery has trended toward innovative CPAP alternatives. Nerve stimulation and ablative procedures have grown, but some anatomical presentations have been frequently excluded. These developments present opportunities for innovators to fill persistent gaps in treatment.

130

Awareness and Implementation of Tobacco Control Practices in Rural Louisiana Federally Qualified Health Centers

Michael D. Celestin, Runet Bryant, Tung-Sung Tseng, Krysten Jones-Winn, Qingzhao Yu
LSU Health New Orleans

OBJECTIVES/GOALS: Tobacco use remains a significant problem in rural America. Federally Qualified Health Centers (FQHCs) can help reduce the burden of tobacco use in rural areas. Still, we know little about center awareness and implementation of best practices for tobacco control. We assessed the knowledge and existence of tobacco control strategies in rural FQHCs. METHODS/STUDY POPULATION: We electronically surveyed health administrators and providers (n=33) in three rural Louisiana FQHCs between March and April 2021. The assessment measured awareness of the U.S. Public Health Service Clinical Practice Guideline for Treating Tobacco Use, center priority given to smoking cessation programming, the presence of best practices for tobacco control programming such as having a tobacco control champion and team, treatment and smoke-free campus policies, and referral to external cessation services. Descriptive statistics characterize survey respondents and responses. RESULTS/ANTICIPATED RESULTS: The majority of the respondents were female (88.5%), White (53.8%), between 35 and 54 years of age (69.2%), and non-smokers (65.4%). Among all respondents, 69.7% reported awareness of the U.S. Public Health Service Clinical Practice Guideline for Treating Tobacco Use. Less than half (48%) said their health center gave smoking cessation high priority relative to other health priorities. Only a third (36%) reported having a tobacco champion, and a quarter (25%) had a tobacco control team at their facility. Although all centers had a smoke-free campus policy, a quarter (27%) were unaware of the policy. Only a quarter (27%) reported having a written policy for smoking cessation treatment at their center, and a little more than half (56.7%) knew about cessation services to which they could refer tobacco users. DISCUSSION/SIGNIFICANCE: Centers had limited knowledge of the U.S. guideline for tobacco use treatment. Smoking cessation lacked priority, and tobacco control best practices implementation was low. FQHCs serving rural populations can implement guideline-recommend policies and clinical treatments, and future studies should test strategies to increase implementation.

131

Beyond the Case Study: Advancing Development and Use of the Translational Science Benefits Model (TSBM) Framework through Application Across Diverse CTSA Contexts

Jessica Sperling[1], Stella Quenstedt, Joe McClernon
[1]Duke University

OBJECTIVES/GOALS: This project has two linked aims. (1) It seeks to integrate the TSBM into specific practices and processes to advance its integration into translational research and translational science processes. (2) Via this integration, it aims to determine ways to expand the TSBM as a conceptual model. Ultimately, we aim to advance the TSBM framework and use. METHODS/STUDY POPULATION: We developed a process that implemented and integrated the TSBM within three intentionally-distinct processes. First, we expanded the use of the TSBM case study from a focus on research studies to a focus on translational research programs, and specifically workforce development programs. Second, we integrated TSBM domains and indicators into a new Duke CTSA-wide database used to track, monitor, and assess activities and achievements across the CTSA. Third, we embedded TSBM and its indicators into our Pilots projects application and review process as well as ongoing reporting. RESULTS/ANTICIPATED RESULTS: We were able to successfully integrate the TSBM model into the processes indicated in methods, yet this integration identified opportunity to improve the model to enhance its applicability and value. We found the TSBM applies in distinct ways to translational science programs compared to research studies, with added indicators better accommodating TSBM application to programs. To properly integrate TSBM into progress monitoring systems, we found added needs to ensure comprehensibility for a wide array of researchers and program implementers. Across uses, we identified challenge distinguishing between TSBM benefits as demonstrated versus potential and ambiguity in potential as based on time to benefit realization, likelihood of realization, or centrality of a specific project to realization. DISCUSSION/SIGNIFICANCE: Our session contributes

https://doi.org/10.1017/cts.2023.212 Published online by Cambridge University Press