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Case study on a worksite sleep disorder program for commercial motor vehicle drivers

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Introduction: Given the distributed operations in long-haul trucking, limited access to healthy food options, and sedentary lifestyle, the prevalence of obesity among commercial motor vehicle (CMV) drivers is reported to be as high as 70% (Smith, 2011). Obesity is a primary risk factor for many chronic conditions, including obstructive sleep apnea (OSA), which is estimated to affect approximately one in four CMV drivers in the United States (Pack, 2002). Beyond the health-related complications of obesity and OSA, work performance and healthcare costs are also affected by these diseases (Schulte, 2007; Schmier, 2006; Engleman, 2004). Additionally, both obesity and OSA are associated with greater crash risk in CMV drivers (Anderson, 2012; Pack, 2002). Worksite health interventions are ideal for CMV drivers due to the nature of the industry (i.e., long work hours and extended time spent at carrier terminals). A leading trucking organization, Schneider National Inc. (SNI), has initiated a sleep disorder program with a commercial OSA provider, Precision Pulmonary Diagnostics (PPD), to address this prevalent disorder within the industry.

Purpose: Detail Schneider National Inc.'s (SNI) OSA Program and evaluate the opinions, perceptions, and program satisfaction.

Methods: Phone interviews were conducted with key SNI and PPD personnel to examine and detail the OSA program. Focus groups were conducted with 13 participants (n=8 drivers and n=5 staff) to determine their opinions, perceptions, and satisfaction with the OSA program.

Results: Overall, 88% of drivers expressed satisfaction with participating in SNI's OSA program. Drivers reported benefits of the program that included: improved sleep quality, increased energy, feeling well rested, improved health, and less worry about falling asleep while driving. Driver-reported drawbacks of the program included: discomfort while sleeping with the positive airway pressure (PAP) device, mask discomfort, and complaints about home PAP use and PAP cleaning and maintenance. Overall, OSA program personnel believed their program was successful and were eager to continue refining and improving it. OSA program personnel cited several supports that aided in implementing and maintaining the OSA programs including a supportive team that prioritized roadway safety and driver health, and effective compliance monitoring accompanied by consistent follow-up with drivers. Staff reported challenges encountered when implementing and maintaining the OSA programs including gaining driver acceptance and significant time delays between screening and testing drivers for OSA due to the high volume of at-risk drivers. Staff also noted logistical challenges inherent to the trucking industry and the mobile workforce of drivers, as well as collecting and organizing PAP compliance data due to the volume of data received.

Conclusions: Corporate sleep disorder programs and interventions are only a piece in the larger promotion of health and wellness on the road with CMV drivers; however, an important first step is to educate drivers on sleep disorders, specifically OSA, and empowering them to make positive steps toward healthy living. Providing OSA screening, testing, treatment, and monitoring for SNI drivers demonstrates the carrier's commitment to driver health and roadway safety.

Biography

Richard Hanowski is a Senior Research Scientist and serves as the Director of the Center for Truck & Bus Safety at the Virginia Tech Transportation Institute. He has been involved in transportation research since 1991 and has led many light vehicle and heavy vehicle safety studies for government and industry. He has over 200 technical publications and has managed over \$40 million in research funding thus far in his career. He has led several noteworthy projects that have had significant impacts on transportation policy. As an expert in "driver fatigue" and "driver distraction", his well-cited study to quantify the risk associated with texting-while-driving (i.e., 23x risk of a safety critical event) has been used in rule-making and public service campaigns to address driver distraction.

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