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Introduction: Sleep disturbances resulting from shift work can negatively affect healthcare workers' health, mood, and patients' safety. Break practices and on-duty napping can be used to mitigate fatigue and sleepiness; however, little research has been conducted with hospital workers to understand how they use their breaks and barriers to rest or sleep. This study examined healthcare workers' use of break time and sleep opportunities in order to understand whether restorative rest at work and overall sleep quality could improve. **Methods:** Data were collected via secure online surveys that were accessible for one month to all employees of two regional hospitals in the USA's Inland Northwest. The present study was nested within a larger survey of 1,285 healthcare workers that has been reported on previously. A qualitative descriptive approach using content analysis methods was used to evaluate text responses from 605 workers who responded to two open-ended items that were previously unexplored. Workers were asked to identify reasons why they had trouble sleeping in the past month and what prevented them from taking their 30-minute break time at work. **Results:** 117 respondents reported on reasons for not taking their 30-minute breaks and 488 wrote in specific sleep interruptions. Four main categories were identified for trouble sleeping: Family, stress/worry, physical ailments, and environment. Four main categories were identified for reasons for skipping breaks: inadequate relief staffing, unit culture, too busy, and individual choice. **Discussion:** Among hospital workers, barriers exist to obtaining adequate sleep and utilizing breaks. Workers' perspectives should be considered when creating policies and promoting unit cultures that prioritize use of break and rest opportunities. Relief for patient care duties and providing wellness programs to address sleep hygiene and stress reduction may increase use of restorative breaks and improve sleep disturbances.

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Survey of Working and Sleeping Time by Industry and Occupation of Fulltime Workers in the U.S.

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Introduction: Long working hours and inadequate sleeping time can lead to increased fatigue and injuries, and decreased wellbeing for workers. This analysis describes working and sleeping time by occupation and industry among fulltime workers in the United States. **Methods:** This analysis examined publically available data from the American Time Use Survey (ATUS) spanning 2015−2017. ATUS is conducted by the U.S. Census Bureau for the Bureau of Labor Statistics (BLS). It is a nationally representative sample of persons aged 15 years or older living in U.S. households. During a 20-minute phone interview, participants were asked about their sequential activities going back 24 hours. **Results:** In 2015−2017, on average fulltime workers worked 8.1 hours (excluding lunchtime), slept 7.9 hours on a working day, and slept 9.7 hours on a non-working day. There is no substantive difference in sleeping time by occupation and industry on a working day. However, working hours varied by industry and occupation. Among the general occupational categories, Farming/Fishing/Forestry occupations had the longest working hours (8.7 hours a day on average) and Education/Training/Library occupations had the shortest working hour (7.3 hours). Among the general industrial categories, Management of Companies and Enterprises had the longest working hours (9.2 hours a day on average) and Internet Publishing and Broadcasting had the shortest working hours (5.7 hours). For detailed occupations that characteristically worked irregular shifts, on average Emergency Medical Technicians and Paramedics worked 10.9 hours a day, Taxi Drivers and Chauffeurs worked 9.7 hours a day, Driver/Sales Workers and Truck Drivers worked 8.8 hours a day, and Physicians and Surgeons worked 8.3 hours a day. **Conclusion:** This analysis provided much needed national baseline data on working hours by occupation and industry for fulltime workers in the U.S. ATUS provides a useful data source to study working time and shiftwork by occupation and industry.

Predicting Circadian Phase in Night Shift Workers Using Actigraphy

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Introduction: A major barrier in addressing circadian misalignment in shift work disorder is the lack of feasibility in measuring circadian phase in the clinic, particularly because obtaining dim light melatonin onset (DLMO) is resource intensive. One promising solution is to predict DLMO based on actigraphy (light and movement) using mathematical models; however, these models have only been tested in adults with relatively small variations in daily light-dark schedules, especially compared to night shift workers. This study tested the feasibility of actigraphy in predicting DLMO in a sample of fixed-night shift workers. **Methods:** A sample of 30 fixed-night shift

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Keynotes

When Can You Start Trusting an Awakening Brain?

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The awakening period is often characterized by grogginess and impaired performance. These effects, referred to as *sleep inertia*, have been reported to last everything from a few minutes up up to several hours. It is at present a poor understanding of how fast one can expect an awakening person to make swift and accurate decisions. The presentation will focus of how fast the brain wakes up, and factors affecting the awakening process. The audience can expet a review of the literature, and to see data from a series of recent experimental and field studies that have determined how different cognitive functions return to normal in abrubtly awakened individauls. The results are important since on-call duty is common in the modern society, and staff is often expected to make safety critical decisions immediately upon awakening.

Health and Safety Risks Related to Specific Characteristics of Shift Work Scheduling

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It is well documented that shift work particularly when including night shifts is associated with shorter and disturbed sleep, increased fatigue, poorer work performance, and higher work-life interference. Furthermore, many studies suggest that shift workers have increased risk of cardiovascular disease, breast and prostate cancer, diabetes, and gastrointestinal disorders, although the causal relationship between night work and adverse health outcomes remains to be established. Night work can be organised in many ways e.g. as part of a rotating or permanent schedule, few or many consecutive night shifts (speed of rotation) and short or long time between shifts. The choices have consequences