53 SleepBudsTM Improve Reported Sleep and Decrease Tension in Health Care Shift Workers: A Prospective, Single-Subject Design Study

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Learning Objectives: Resident physicians often participate in shift work during training. Here, we aimed to develop a reproducible method for assessing perceived sleep quality, daily tension, and alertness in health care shift workers. In doing so, we assess the effect of the use of Bose SleepBudsTM on these parameters.

Background: Shift work triggers sleep disorders which impair performance and lead to physical and mental health disease. In health care workers, this decreases provider wellness and can compromise patient care.

Objectives: We predict use of Bose SleepBudsTM can improve sleep quality, sleepiness, and stress level in health care shift workers, and increase alertness and reaction time post-night shift.

Methods: Emergency medicine resident physicians were recruited for a prospective, single-subject design study. Entrance surveys on current sleep habits were completed. For 14 days participants completed daily surveys on sleep aid use, and rated perceived sleepiness, tension level, and last nights' sleep quality on an 8-point Likert scale. Post-overnight shifts, 3-minute psychomotor vigilance tests (PVT) measuring alertness and reaction time were completed. Participants were then provided Bose SleepBudsTM and used them as needed for sleep. Daily sleep surveys and post-overnight shift PVT continued for 14 days. Comparative statistics analyzed pre- and post-SleepBudsTM outcomes with participants serving as their own controls.

Results: 36 residents were recruited, of these 26 completed all tasks and were included in final analysis. During intervention period, last nights' sleep quality increased by 0.51 points ($p<0.0001$, 95% CI 0.226-0.797), daily sleepiness decreased by 0.62 points ($p<0.0001$, 95% CI -0.903 to -0.338), and total daily tension decreased by 0.56 points ($p<0.0001$, 95% CI -0.805 to -0.322). This effect was exaggerated in participants reporting below-median scores pre-intervention. 12 PVT tests were completed. Due to resident scheduling, insufficient PVT were performed to draw conclusions from this data.

Conclusions: Interventions such as SleepBudsTM may improve daily sleepiness, tension, and perceived sleep quality in health care shift workers. Larger studies are needed to determine this interventions' effect on alertness, reaction time, and patient outcomes.

54 Social EM in the Time of Covid: A Virtual Clerkship Experience

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Learning Objectives: We sought to explore students' previous exposure to social emergency medicine (EM), as well as to establish the feasibility of a virtual social EM curriculum embedded into a 2-week virtual advanced EM clerkship experience.

Background: Social and structural determinants of health are an under-appreciated but critical component of effective healthcare, particularly in the Emergency Department. With the Covid-19 pandemic limiting in-person learning, an innovative virtual curriculum was needed.

Objectives: We sought to explore students' previous exposure to social EM, as well as establish the feasibility of a virtual social EM curriculum.

Methods: The social EM virtual curriculum was included as part of two separate 2-week virtual clerkships beginning on 8/24/2020 and 9/21/2020 that recruited students interested in social EM and health equity. It consisted of small-group teaching using standardized modules created by our International and Domestic Health Equity and Leadership (IDHEAL) section. An anonymous mixed methods survey was distributed after each module. This observational study was conducted at a large academic center with a social EM fellowship.

Results: Session 1 and 2 had 9 and 17 students respectively. Of 130 distributed surveys, 75.4% were completed. Previous social EM experience varied between topics, with race being the most commonly reviewed (68.8%) and incarceration the least (5.5%) (Figure 1). 98.9% of respondents agreed/strongly agreed that these social EM topics are important for the care of ED patients and 94.9% felt more confident addressing these topics with patients in the ED after the session (Figure 2). Additionally, 96% of students agreed/strongly agreed that the virtual clerkship should be repeated even if Covid restrictions are lifted.

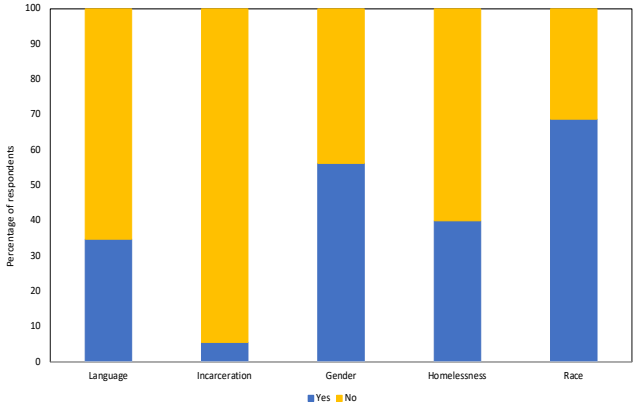

Figure 1. Have you ever had formal instruction on the topic discussed.

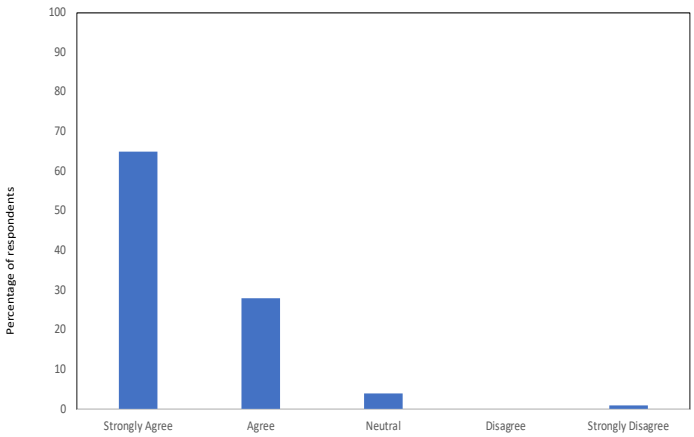

Figure 2. I feel more confident about how to address this topic when seeing patients in the emergency department.

Conclusions: We established the feasibility of a virtual social EM curriculum using standardized modules and show evidence supporting the use of virtual learning. This curriculum's impact is increased by the virtual platform's ability to provide a more diverse group of students and easier access to content experts. Finally, the use of standardized modules enables other programs to easily reproduce our curriculum.

55 Social Stressors and Isolation Have Biggest Effect on Resident Wellness During a Pandemic

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Learning Objectives: To identify what features of the Covid-19 pandemic have the biggest negative impact on the wellness of EM residents and what interventions help the most.

Background: EM physicians are already known to be high-risk for depression and burnout. In all likelihood the Covid-19 pandemic has added to this risk.

Objectives: We sought to identify the primary stressors for EM residents during this pandemic and determine which factors and interventions have helped most to improve their wellness.

Methods: Setting: An EM residency program in the state with the highest per-capita deaths from Covid-19. All EM residents were surveyed eight months into the pandemic using Google Forms. Surveys were anonymous to promote honesty. Residents were asked about to identify the three factors that had the greatest negative impact on their wellness. They were also asked to identify the three features that did most to improve wellness. Demographic information was collected.

Results: 23 of 27 residents (85%) completed the survey. 91% (95%CI 80-100) said the negative impact of the pandemic affects them more socially than professionally. The factors identified most commonly contributing negatively to a resident's wellness were "decreased socialization / isolation" (74%) and "concerns for family safety" (70%). "Changing hospital protocols" (35%), "Feeling under-appreciated at work" (30%), and "Public not doing enough to stop the spread" (30%) were also identified frequently as having a negative effect. "Concerns for my own safety" was only identified by 17% of residents as being a top-three issue. The features most commonly identified as helping wellness were "Ability to socialize in small groups" (65%), "team mentality" (57%) and "free food" (44%).

Conclusion: Overwhelmingly, residents cite the social impact of the pandemic as having a more negative effect on their wellness than work did. Concerns for their own safety are not identified frequently as having a significant impact. Interventions that are social and decrease the sense of isolation appear to be especially important in improving wellness.

56 Society of Academic Emergency Medicine Systematic Online Academic Resource Review: Endocrine, Metabolism, and Nutrition

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Learning Objectives: To identify and present a list of high-quality FOAM resources related to EM and specific to endocrine, metabolic and nutritional disorders to guide trainees, educators and FOAM creators.

Background: Free open access medical education (FOAM) has become an integral part of medical school and residency training. However, resources potentially lack quality and coverage of core topics may not be comprehensive.

Objectives: In this second entry of the SAEM Systematic Online Academic Resource (SOAR) series, we describe the application of a systematic methodology to identify, curate, and describe FOAM content specific to endocrine, metabolic and nutritional disorders as defined by the 2016 Model of the Clinical Practice of EM (MCPEM).

Methods: We developed an automated algorithm to search 264 keywords derived from 9 subtopics within the MCPEM category in Google Foam and each site listed in the Social Media index. The top 100 results for each keyword were extracted. Resources underwent a manual iterative screening process. Those relevant to endocrinology and EM were evaluated with the revised Medical Education Translational Resources: Impact and Quality (rMETRIQ) tool.

Results: After rater training among four reviewers, the average measures intraclass correlation coefficient was 0.94 (95% CI 0.88-0.97, $p<0.001$), denoting a very strong interrater reliability. Eliminating duplicates and journal articles from the initial 36,259 resources resulted in 9,751 posts, of which the preliminary screen for EM and endocrinology relevance