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51 Shift Happens: Emergency Physician Perspectives on Fatigue and Shift Work

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Study Objectives: Research has shown that shift workers experience relatively poor sleep and increased fatigue, and that these effects are associated with adverse impacts on the workers themselves, as well as their work quality (eg, safety incidents, decreased performance). While considerable research has been performed on fatigue, including on risk management and intervention strategies, little research has been conducted in the field of emergency medicine, especially with emergency physicians (EPs). Given this dearth of knowledge on EP fatigue, a qualitative study with EPs was conducted, with the goal of gaining insight into physicians' perceptions of fatigue at work.

Study Design/Methods: Semi-structured, virtual interviews were conducted with EPs ($N = 20$) from a Department of Emergency Medicine at a large academic medical institution in the Southeast United States. Interviews lasted approximately 30 minutes each and included nine questions. However, the interviewer asked additional follow-up questions as needed throughout each interview. Interviews were transcribed, and then the data were analyzed using qualitative analysis software. The analysis followed Grounded Theory framework and Consensual Qualitative Research guidelines (Hill et al, 1997)

Results: We found that some of the EPs' experiences with the sources and consequences of fatigue were consistent with other types of shift workers, but they also reported unique fatigue perceptions. EPs indicated experiencing a variety of specific work- and home-related sources of fatigue, including shift scheduling and unpredictability, sleep issues, work overload, and others. Participants also reported a variety of consequences of fatigue at work, including impacts on attitude, cognition, general work performance, professionalism, and collegiality. Interestingly, in addition to discussing sources and consequences of fatigue, participants discussed the inevitability of fatigue in emergency medicine due to traumatic and emotionally taxing work experiences, work unpredictability, and the 24/7 shift work nature of the job. Indeed, discussion of the nature of emergency medicine and inevitability of fatigue in this type of work were some of the most prolific themes to emerge from the data.

Conclusions: EPs experience fatigue, with potentially serious consequences at both work and home. Additionally, this study suggests that EPs might incorporate this "inevitability of fatigue" at work into their identity as emergency physicians. One theory from the psychology literature that helps explain this phenomenon is the theory of learned helplessness. Learned Helplessness states that individuals who perceive an inability to control a situation ultimately abandon efforts to change it. Learned helplessness has been shown to be associated with a host of negative outcomes, including depression. More research is needed to test potential interventions to reduce fatigue and limit the sense of learned helplessness, such as education and increased control over scheduling and other aspects of emergency medicine work.

52 Is Working in the Emergency Department Hazardous to Your Health? Psychological and Physical Features of Emergency Staff during the COVID-19 Pandemic

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Study Objective: Previous work has established that frontline health care workers (HCWs), such as emergency physicians and nurses, are vulnerable to the development of adverse behavioral, psychological, and physical sequelae, which may persist long after the disaster. We examine the prevalence and predictors of psychological distress in ED clinicians working during the COVID-19 pandemic. We examined psychological and physiological (sleep, resting heart rate, blood pressure) of a sample of frontline providers during the COVID-19 pandemic

Methods: This was a sample of 50 clinicians (physicians, residents, nurses, PAs, NPs) who were frontline HCWs during the COVID-19 pandemic across a diverse (academic, community, urban, and suburban) range of four emergency departments in the New York Metropolitan area during July 2020-September 2020. Study design is a longitudinal prospective cohort design. At baseline, we conducted a psychological test battery including measures of COVID-19-related stress, PTSD (PCL-5), anxiety (GAD-5), depression (PHQ-9), and burnout (Maslach Burnout Inventory). We also assessed home blood pressure at wake/sleep, resting heart rate, and sleep duration using an accelerometer watch device (Fitbit).

Results: Baseline demographics in our sample had more self-identified women participants (62%), caucasian (67%), with median age of 42. Sample was diverse, containing physicians/advanced practice providers (45%) nurses (43%) and residents (12%) At baseline, positive screens for psychological symptoms were common; 48% for acute stress, 37% for depressive, and 30% for anxiety symptoms. Overall, housestaff rates for acute stress and depression did not differ from attendings or nurses. Overall participants had elevated levels of emotional exhaustion on burnout surveys (median 24, SD 3.5). Average sleep duration was 6.2 hours (SD 1.3), resting heart rate of 86 (SD 18.2), and home blood pressure of 128/76. Increased levels of emotional exhaustion was positively associated with elevated resting blood pressure (Pearson $r = .32$), and resting heart rate ($r = .38$), while negatively associated with sleep duration ($r = .23$).

Conclusion: Our preliminary work and others have highlighted that HCWs are experiencing significant COVID-19-related psychological and physical distress. Future work and data will address key questions such as whether such elevated distress symptoms remain persistent with the evolution of the pandemic. This work and others emphasize the need for continued mental health support measures for HCWs both during and in the aftermath of the pandemic.

53 Continued Resident Depression, Anxiety and Stress Despite Declining Covid Numbers and Increasing Vaccination Rates

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Study Objective: Resident wellness is a critical issue for residency programs and much discussion has determined that programs across all specialties have a responsibility to monitor their residents for signs of depression, anxiety, and stress. Despite its importance, programs have yet to determine a simple, objective way to measure these signs. We sought to establish an objective measure of emergency medicine (EM) resident wellness last year during the SARS- CoV- 2 pandemic, and then determine if wellness improved as the pandemic was waning.

Methods: Using the Depression, Anxiety, and Stress Scales (DASS), all residents in a suburban EM residency in the state with the highest SARS- CoV- 2 deaths per capita were surveyed during the pandemic ("during") and then again six months later in the spring, as the CDC began to recommend lifting restrictions ("after"). The DASS is a validated psychometric scale used across multiple industries and designed to measure the negative emotional states of depression, anxiety and stress. Survey results were anonymous. The percentage of residents with depression, anxiety and stress during and after the pandemic was measured, and differences with 95% confidence intervals (CI) were calculated.

Results: Out of 27 residents, 26 (96%) completed the "during" survey and 23 (85%) completed the "after" survey. During the pandemic, 42% of residents were measured as having some degree of depression, ranging from mild to severe, compared to 33% noted on the "after" survey (Difference - 9%, CI: - 38, 20). Results showed that 31% of residents were measured as having some degree of anxiety during the pandemic, compared to 38% noted in the "after" survey (Difference 7%, CI: - 21, 36). 46% of residents were measured as having some degree of stress during the pandemic, compared to 48% noted in the "after" study (Difference 1%, CI: - 29, 32). There were no significant changes in the percentage of residents classified as having "severe" depression, anxiety or stress..

Conclusion: Despite the waning pandemic and increased rates of vaccination, there was no significant improvement in the levels of depression, anxiety and stress as measured by the DASS among the residents. The reason for this is unclear but certainly requires more investigation.

54 The Cafeteria: A Surprising Source of Wellness

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Study Objectives: Numerous studies have demonstrated the link between adequate nutrition during post graduate training and improved wellness. Many academic institutions provide the post graduate physicians a stipend toward expenditure on meals in the cafeteria. Although well intentioned, providing the basic options without inclusion of diverse solutions may contribute toward burnout and decrease in wellness. The lack of variety in the nutritional offerings, no available options for physicians with