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The Effect of Excessive Use of Force on the Mental, Physical, and Social Health and Workplace Environment of Medical Professionals

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33.33%) compared to pre 1.30% (0-5.08%; $p = .047$). The general distribution of post- and pre-exercise transcription errors based on the total number of characters typed achieved significance only for the day shift ($p = .001$) with fewer transcription errors post-exercise than pre; the difference between post and pre was not significant for evening and overnight shifts (see Table 1).

Conclusion: Cardiovascular exercise during ED shifts can improve cognitive function of EMR physicians as reflected by improved typing output and improved transcription accuracy.

Table 1. Percentage of incorrect responses based on total number of characters typed (median, range) $n=35$.

Day Shift		Evening Shift		Overnight Shift	
Pre	Post	Pre	Post	Pre	Post
1.01% (0-4.58%)	0.408% (0-2.7%)	1.82% (0.39-5.08%)	0.913% (0-33.33%)	0.895 (0-4.14%)	1.28% (0-3.49%)
P = .001		p= .514		P = .466	

28 Effectiveness of near-peer instruction during emergency medicine clerkships on fourth-year student end-of-year eFAST performance

Meghan Herbst, Drew Beaubian, Michael Taylor, James Grady, Ayesha Gittens, Jeremiah Ojha

Background: Limited trained faculty is a barrier to successful incorporation of the extended Focused Assessment with Sonography in Trauma (eFAST) into undergraduate medical education (UME) ultrasound (US) curricula. Aligning resident skills with UME needs has the potential to be effective and sustainable.

Objective: To evaluate the effectiveness of a resident-led eFAST session administered to 4th-year medical students during their emergency medicine (EM) clerkship by measuring students' end-of-year eFAST performance and confidence.

Methods: This was a single-site cross-sectional study of all graduating medical students exposed to a required vertical US curriculum and enrolled in 4th-year clerkships from May 1, 2022 to April 30, 2023. Exclusion criteria were an excused absence or failure to consent. A 90-minute eFAST session (intervention) was added to students' 4th-year EM clerkship orientation in September 2022, taught by EM residents on their academic site rotation. End-of-year performance and confidence assessments were conducted prior to students' 2023 graduation, using a 20-point objective structured clinical examination (OSCE) and 5-point Likert scale, respectively. The mean OSCE and confidence scores for control and intervention groups were compared using two-sample t-tests. An ANOVA was performed

to control for unbalanced additional US experiences with Tukey-Kramer adjusted p-values.

Results: Of 113 anticipated students, 103 students participated; 48 in the control and 55 in the intervention group. The intervention group scored higher on the OSCE than the control, 11.9 ± 4.6 vs 9.9 ± 5.1 , $p = 0.04$; and reported higher confidence, 3.2 ± 1.0 vs 2.8 ± 1.2 ; $p = 0.09$. When controlling for additional US experience, results were similar ($p = 0.004$ for OSCE and $p = 0.007$ for confidence improvement).

Conclusion: Resident-taught eFAST instruction during UME EM clerkship orientation led to improved end-of-year 4th-year medical student eFAST performance and confidence.

29 The Effect of Excessive Use of Force on the Mental, Physical, and Social Health and Workplace Environment of Medical Professionals

Thomas Medrano, Kevin-Dat Nguyen, Xiaofan Huang, Adedoyin Adesina, Richina Bicette, Titilola Alao, Jessica Jackson, Edgardo Ordonez, Anisha Turner

Background: Exposure to excessive use of force (EUOF) has been linked to several physical and mental health sequelae such as diabetes, hypertension, obesity, PTSD, and depression. While EUOF intersects with the medical system through the interwoven work of emergency medicine physicians (EMPs) and law enforcement officers (LEO) as care is provided to patients who have had encounters with police. The impact of EUOF on the physical, psychological, and social well-being of EMPs has not been studied in depth.

Objectives: The objective of this study is to evaluate the effect of excessive use of force on the psychological health and work environment of emergency medicine physicians.

Methods: This was an observational cross-sectional survey study. The survey was developed by five emergency and psychiatry physicians at Baylor College of Medicine. The survey included demographical questions, questions about work impact, and the Impact of Event Scale—Revised (IES-R) and its' subscales to assess the psychological impact of EUOF on the respondents. Links to the survey were emailed via RedCap to designated points of contact at five Texas-based institutions to be distributed to emergency medicine residents, fellows, and attendings in their emergency departments. Participant responses were analyzed using fisher exact test for categorical questions and Wilcoxon rank sum test for continuous variables. A significance level of 0.05 was used.

Results: Forty emergency medicine physicians (EMPs) responded to the survey. Fifty-three percent of the respondents were attendings, forty percent were residents, and seven percent were fellows. Approximately half (45%) of the respondents reported that incidents of EUOF impacted their work life while thirty eight percent (37.5%) of participants report being mentally impacted by incidents of EUOF. 56% of participants

who indicated their work life had been impacted reported that “[they] avoided letting [themselves] get upset when [they] thought about it or was reminded of it.” ($p = 0.021$); 24% said “[they] felt as if it hadn’t happened or wasn’t real.” ($p = 0.045$); 31% noted “[they] tried not to think about it.” ($p = 0.043$). The median (25%, 75%) score on the intrusion subscale between the agree and disagree group was 6.00 (0.00,11.00) and 1.00 (0.00,4.25) respectively. Analysis produced a p-value of 0.048 between the median scores. 61% of these affected participants said that exposure to EUOF affected the way they care for patients ($p = <0.001$), 83% reported they interacted differently with police officers ($p = <0.001$) and 50% said they interacted differently with patients ($p = <0.001$). 50% of respondents who reported that exposure to those same EUOF incidents mentally impacted them indicated that “Any reminder brought back feelings about it” ($p = 0.015$); 20% reported that it “Affected [their] desired practice setting” ($p = 0.046$). The median (25%, 75%) score between the agree and disagree/neutral groups on the avoidance subscale were 7 (3.25,16.25) and 3 (0,6) respectively with analysis producing a p-value of 0.039. 47% of mentally impacted respondents reported that they had been made aware of EUOF by law enforcement through personal experience ($p = 0.024$). 80% of these respondents had either experienced EUOF personally ($p = 0.026$) or knew a non-family member who had experienced EUOF ($p = 0.036$).

Conclusion: This pilot survey showed that EMPs are impacted by exposure to EUOF in ways that impact both their psychological state and work environment. This impact extends beyond a personal level by impacting both the way they interact with LEOs and contribute to patient care.

30 Minority Tax in Emergency Medicine Resident Physicians

Dalia Owda, Alexandra Hajduk, Edgardo Ordonez, Tanesha Beckford, Sarwat Chaudhry

Background: The minority tax is defined as the extra responsibilities placed on underrepresented minorities (URMs) to participate in diversity, equity and inclusion (DEI) efforts. In medical students and faculty, it has been associated with decreased wellness and promotion. Little is known about the minority tax experienced by resident physicians.

Objectives: To understand the minority tax experienced by emergency medicine (EM) residents. The primary aim is to compare the time spent on DEI work between URM and non-URM EM residents. The secondary aims are to describe the support received for DEI work and to describe experiences of mentorship, discrimination, and burnout between URMs and non-URMs.

Methods: This is a cross-sectional study of EM residents in U.S. ACGME accredited programs, with data collection from July to November 2023. Five domains were

assessed: demographics, DEI involvement, mentorship, discrimination, and burnout. The survey was distributed via the EM Residents’ Association (EMRA) newsletter, personal networks, and social media. We performed t-tests for comparisons of normally distributed continuous variables, Wilcoxon tests for ordinal/non-normally distributed continuous variables, and Chi-square for categorical comparisons.

Results: 101 EM residents including 66 URM and 35 non-URM completed the survey. URM residents reported a mean of 5.3 hours doing DEI work compared to 1.8 hours by non-URM ($p < 0.01$) per week. 58% received a titled role, 5% received compensation, and 9% received training for their DEI work. URMs reported less effective mentorship (17.5 vs 14, $p = 0.01$), higher experiences of discrimination (9 vs 6, $p = 0.02$), and similar burnout (7.5 vs 7, $p = 0.21$).

Conclusions: URM EM residents experience a minority tax through increased participation in DEI work and overall, low compensation and training in this work. They also experience less effective mentorship and higher events of discrimination.

31 Demographics, Training, and Longevity of Emergency Medicine Clerkship Directors: a National Survey

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Background: Despite the expansion of medical schools and EM residencies, there is limited current data regarding the characteristics of emergency medicine (EM) clerkship directors (CDs) in the United States (US).

Objectives: To assess the characteristics, training, support, and longevity of US EM CDs directing 3rd and/or 4th year rotations.

Methods: We performed a cross-sectional study of EM CDs identified using publicly available data from medical school, residency program, and AAMC websites who were invited to complete a confidential, piloted, electronic survey consisting of multiple choice and completion items. Descriptive statistics were reported; categorical variables were compared with χ -squared tests and continuous variables with t-tests.

Results: 157 EM CDs (44%) responded representing all US regions. 35% were female. Average years since finishing residency was 10.9 (+/- 7.1, 1 SD) and as CD 5.5 (+/- 4.5), without significant gender difference. 20% earned a Masters or PhD degree, 24% completed fellowship training (14% in medical education or simulation), and 6% an educational certificate program. 58% hold additional leadership, educational or administrative roles. 35% aspire to another position in 5 years (mostly assistant or residency director or assistant/associate dean). Anticipated years remaining as CD are 2.5 (+/- 2.0). Nonfinancial