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	Minimal, n(%)	Mild, n(%)	Moderate, n(%)	Severe, n(%)	Very severe, n(%)	Total, n(%)
Military						
Yes	14 (11.0%)	4 (5.7%)	4 (7.0%)	5 (12.8%)	1 (4.6%)	28 (8.9%)
No	114 (36.2%)	66 (94.3%)	53 (93.0%)	34 (87.2%)	21 (95.5%)	289 (91.8%)
Total	127 (100%)	70 (100%)	57 (100%)	39 (100%)	22 (100%)	315 (100%)
Previous PTSD Diagnosis						
Yes	2 (1.6%)	5 (7.1%)	4 (7%)	2 (5.1%)	1 (4.6%)	14 (4.4%)
No	125 (99.2%)	65 (92.9%)	53 (93%)	37 (94.9%)	21 (95.5%)	301 (95.6%)
Total	127 (100%)	70 (100%)	57 (100%)	39 (100%)	22 (100%)	315 (100%)
Previous Other Mental Health Diagnosis						
Yes	20 (15.8%)	22 (31.4%)	17 (29.8%)	18 (46.2%)	7 (31.8%)	84 (62.2%)
No	107 (84.3%)	48 (68.6%)	40 (70.2%)	21 (53.9%)	15 (68.2%)	231 (73.3%)
Total	127 (100%)	70 (100%)	57 (100%)	39 (100%)	22 (100%)	315 (100%)

36 Comparison of Mental Health Visits at a Military Treatment Facility Emergency Department Pre- And Post-COVID-19 Pandemic



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Study Objectives: There is a paucity of quantitative research regarding the effect of COVID-19 on emergency department (ED) visits in the United States, and specifically mental health-related ED visits. The small existing body of research describes an overall decline in ED visits worldwide; however, there are anecdotal reports that psychiatric complaints to the ED have increased during the pandemic. The primary objective of this study was to describe the volume of mental health ED visits at a single ED during the COVID-19 pandemic compared to previous years.

Methods: This was a single-center, retrospective chart review of adult patients evaluated in the ED at an academic military medical facility from March-December of 2017-2020 for mental health. The electronic medical record was queried for 1,542 mental health ICD-10 diagnosis codes. Demographic data including age, sex, disposition, diagnosis, and beneficiary status were collected. Tests of association included Pearson Chi-square with Bonferroni correction for post-hoc tests and one-way ANOVA.

Results: There were a total of 1,486 mental health ED visits from March-December 2020, compared to an average of 1,668 visits from March-December 2017-2019. Statistically significant (p<0.05) differences, between 2020 and the prior three years combined, were identified in the categories of age, disposition, beneficiary status, and diagnosis. In 2020, there was a lower proportion of visits for patients aged ≥ 60 (1.2%) than in 2017-2019 (2.5%). Active duty patients comprised a lower proportion in 2020 (17.6%) versus 2017-2019 (23.0%). Proportionately fewer patients were admitted in 2020 (25.2%) versus 2017-2019 (29.2%). Adjustment disorders made up 19.0% of visits in 2020 versus 23.2% in 2017-2019 and suicidal ideation and intentional self-inflicted injury comprised 43.3% in 2020 compared with 40.4% in 2017-2019.

Conclusion: There was a significant decline in ED visits for patients over the age of 60 and for active duty military patients. Overall, fewer patients were admitted compared to previous years. There was a significant increase in patients diagnosed with suicidal ideation and intentional self-inflicted injury in 2020 compared to previous years. The COVID-19 pandemic and associated quarantines have negatively affected mental health worldwide. Active duty military and elderly patients were uniquely impacted. Both groups have been subject to highly restrictive limitations during the pandemic. Alarmingly, this study shows increased rates of self-harm and suicidal ideation, yet a lower likelihood of these populations to present to the ED for mental health care. Further study is needed to determine why these effects were seen, and if there is a higher risk for suicide attempt or completion in these populations.

Table 1. Comparison of ED Mental Health Visits Pre- and Post-COVID-19 Pandemic

Variable	2017-2019 (N=5004)	2020 (N=1486)
Sex		
Male	3001 (60.0)	913 (61.4)
Female	2003 (40.0)	573 (38.6)
Age, Mean (SD)*	26.9 (10.3)	25.9 (8.8)
Age Group*		
18-59	4881 (97.5)	1468 (98.8)
60+	123 (2.5)	18 (1.2)
Disposition**		
Admitted	1455 (29.2)	373 (25.2)
Released	3530 (70.8)	1109 (74.8) 6467
Diagnosis*		
Adjustment disorders**	1163 (23.2)	283 (19.0)
Anxiety disorders	927 (18.5)	292 (19.7)
Schizophrenia and other psychotic disorders	108 (2.2)	28 (1.9)
Suicide and intentional self-inflicted injury**	2022 (40.4)	643 (43.3)
Mood disorders	622 (12.4)	196 (13.2)
Other	162 (3.2)	44 (3.0)
Beneficiary category*		
Active duty	3853 (77.0)	1225 (82.4)
Non-active duty (active duty family/retired/retired family)	1151 (23.0)	261 (17.6)

*N=6467 (23 observations missing).

**Significant at p-value <0.05.

**Pairwise comparison with Bonferroni correction indicates significant difference at p-value<0.05.

37 COVID-19 and Medical School Curriculum: Can Emergency Medicine Successfully Adapt to a Virtual Format of Teaching?



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Background: Emergency medicine has historically been taught with a combination of didactic and bedside learning; however, the COVID-19 pandemic pushed emergency medicine programs to quickly resort to an online curriculum. Our novel online curriculum included reading, direct teaching, and interactive “patient walk-throughs” utilizing Google Forms. The “walk-throughs” consisted of case presentations in which the students were prompted to provide differential diagnoses, labs and imaging, and were given feedback on their decisions. We sought to evaluate how fourth year medical students’ comfort level with common emergency medicine scenarios would change after completing the virtual curriculum. We also sought to evaluate how well the virtual curriculum prepared students for the end of rotation exam, the COMAT.

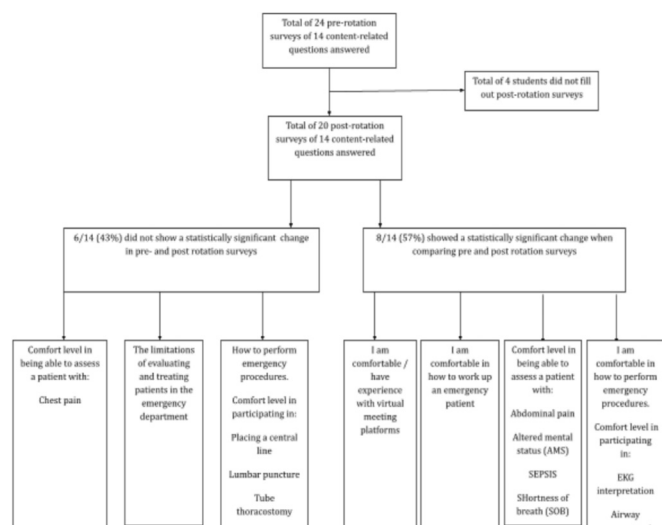
Study Objectives: 1. Evaluate students’ perceptions on emergency procedures, assessing an ED patient, and the limitations of evaluating a patient in the ED. 2.

Evaluate the student's pre and post-rotation comfort level in evaluating a patient with abdominal pain, altered mental status, chest pain, suspected sepsis, and shortness of breath. 3. Evaluate how the virtual curriculum affected EM students' COMAT scores compared to the national average, and to the scores of prior students from the same university who had a standard, in-person curriculum.

Methods: 24 students participated in a one-month rotation in the virtual EM curriculum between March-May 2020. Pre-rotation surveys were conducted prior to the start of their rotation. Post-rotation surveys were conducted within three days following the last day of the students' respective rotations.

Results: Primary outcome: Evaluate students' perceptions on ability to perform key aspects of emergency medicine following a one-month virtual curriculum. 24 students completed the pre-rotation survey and 20 students completed the post-rotation survey assessing comfort level with common emergency medicine scenarios. In total, there was a statistically significant improvement in students' comfort level in a majority of scenarios (8/14). Secondary outcome: Evaluate virtual-EM students' COMAT scores compared to prior students' scores from the same university in years prior. All 24 students attended the same DO program and sat for the COMAT exam at the end of the rotation. Data is being analyzed comparing the performance of the 24 students participating in the virtual curriculum.

Conclusions: Students' comfort level significantly improved between the pre and post rotation survey in many emergency medicine aspects. This included the comfort in assessing abdominal pain, altered mental status, SEPSIS, and shortness of breath. A statistically significant improvement was found in students' comfort in EKG interpretation and airway management. The inability to rotate in-person for emergency medicine likely impacted the learning experience for medical students. Our study found that students' comfort level in key procedural aspects of emergency medicine was not significantly higher than prior to the rotation. Our current academic year COMAT score data is in the process of being analyzed.



38 Posttraumatic Stress in Emergency Department Health Care Workers During the COVID-19 Outbreak in Brooklyn, New York

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Study Objectives: Emergency department (ED) health care workers (HCW) have experienced extensive mental health burden in the fight against COVID-19. This study measured symptoms of post-traumatic stress disorder (PTSD) in ED

HCW in Brooklyn, New York, experienced during the peak of the COVID-19 pandemic.

Methods: An email-distributed survey of ED HCW at Maimonides Medical Center was conducted September 8–December 31, 2020, with reference period March–May 2020. Posttraumatic stress symptoms were measured by the PTSD checklist for DSM-5 (PCL-5). A PCL-5 score >32 was deemed clinically relevant. Our main predictor was HCW status, which was dichotomized as clinical (MD/DO, nurses, ED technicians) vs non-clinical. Covariates included sex, age, race, SARS-CoV-2 testing status (not tested vs +test vs -test), social support (range: 0- >4 people to talk to), number of COVID-related home problems (range: 0-9), mental health care disruption during COVID-19 (yes/no), 3-item Loneliness Brief Survey (LBF) score (range: 3-9), and survey date. General linear regression and logistic regression analyses were used to predict PCL-5 score (β -coefficient, p-value) and clinically relevant posttraumatic stress symptoms (odds ratio (OR), 95% confidence interval (95% CI)), respectively. A p-value<0.05 was considered significant.

Results: Among 247 HCW respondents, 67.1% were between 25-44 years old, 56.8% were White, 51.4% were male, 79.7% were clinical HCW (30.5% MD/DO, 22.7% nurses, 25.2% ED technicians), and 63.2% had been tested for SARS-CoV-2. The median PCL-5 score was 10. A higher mean PCL-5 score was observed for clinical vs non-clinical HCW (p<0.0001). Lower PCL-5 scores were observed for males (β =-4.31, p=0.05), while higher scores were observed in association with an increased number of COVID-19-related home problems (β =2.13, p=0.04), LBF score (β = 4.09, p<0.0001) and higher number of people to talk to (β =6.97, p=0.04). A clinically relevant PTSD symptom burden was reported by 16.6% of HCW - 18.3% of clinical HCW vs 3.6% of non-clinical HCW (p=0.0048). Higher odds of clinically relevant PTSD symptoms were observed for ED technicians compared to non-clinical HCW (OR 16.16, 95% CI 1.53-170.46). A clinically relevant PTSD symptom burden was also observed among those reporting increasing COVID-19-related home problems (OR 1.69, 95% CI 1.01-2.83) and LBF score (OR 1.83, 95% CI 1.38-2.44).

Conclusions: Almost one in five clinical HCW experienced a clinically relevant PTSD symptom burden during the peak of the COVID-19 pandemic. To deepen our understanding of mental health outcomes, create effective interventions, and promote mental health-related policy changes, such as expanding insurance coverage for mental health care and developing more effective wellness programs for HCW, temporal associations between mental health outcomes and associated factors must continue to be investigated.

39 Impact Of Socioeconomic Status On COVID-19 Disease Severity

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Study Objective: To determine the relationship between socioeconomic status and the severity of COVID-19 infection upon emergency department presentation and overall hospital course.

Methods: This was a retrospective chart review of 235 randomly selected patients admitted to a major health care system with a diagnosis of PCR-confirmed COVID-19. Severe disease was defined as the presence of any of the following: respiratory rate \geq 30, oxygen saturation \leq 89% at rest, requirement of mechanical ventilation, non-respiratory organ failure, septic shock, or death. Presence of these symptoms were assessed for each patient upon initial presentation to the emergency department, and in their overall hospital course. Socioeconomic status was estimated by extrapolating US census data for median household income from each patient's zip code. Household incomes were then separated into quintiles. The percentage of patients within each quintile who were severe upon presentation and severe overall was determined. Demographic data for each subject was collected and logistic regression was used to control for confounding variables.

Results: Of the 235 patients, the income quintiles were as follows: q1: \$0-38,100; q2: \$38,101-46,700; q3: \$46,701-56,600; q4: \$56,601-72,000; q5: \$72,001+. The population was 43% White, 24% American Indian or Alaska Native, 19% Black, 5% Asian, 1% Pacific Islander, 1% Middle Eastern, and 8% two or more races. 27% of the study population was of Hispanic or Latino ethnicity. Using a logistic regression to control for confounding variables, a statistically significant association was seen between median income and likelihood of severe disease on presentation (odds ratio with each increasing quintile 0.80; 95% CI 0.66-0.96) as well as between median income and likelihood of severe disease overall (odds ratio with each increasing quintile 0.74; 95% CI 0.59-0.93). Severe disease upon presentation to the emergency department was associated with a longer length of stay (3.6 days longer on average, p = 0.002) and an increased likelihood of death (odds ratio 3.6; 95% CI 1.58-8.02).