identify sources of horizontal violence (HV) toward emergency medicine residents. Our hypothesis was that women residents earlier in their training would experience more HV as measured by the Negative Acts Questionnaire-Revised (NAQ-R).

Background: Bullying is prevalent across multiple industries, including academic medicine. The majority of health care research in horizontal violence (HV) has been within the nursing field.

Objectives: The objective of this study was to identify sources of HV toward emergency medicine (EM) residents. Our hypothesis was that women residents earlier in their training would experience more HV as measured by the Negative Acts Questionnaire-Revised (NAQ-R).

Methods: This pilot study utilized a descriptive cross-sectional survey design to categorize HV. Participation was voluntary; all were residents in an ACGME-approved, three-year academic EM residency in Rochester, MN. Data was collected via electronic survey and occurred at the midpoint of one academic year.

Demographic information and responses to the NAQ-R were collected. It is subdivided into three categories of bullying: work-related, person-related, and physical intimidation. Residents were asked to answer 22 questions as it relates to their interactions with other residents and again as it relates to ancillary staff.

Results: A total of 23 of 26 residents responded (88%). Participants were 56% women, 78% white, 12% Hispanic, and 89% heterosexual. Clinical year was broken down into 39% first, 39% second, and 22% third year residents.

Women reported a higher frequency of HV compared to men ($p<0.001$). There was no difference in reported frequency of violence based on clinical year ($p=0.15$). By category, women indicated more frequent incidences of work-related violence, both from residents ($p=0.031$) and staff ($p=0.008$) and more incidences of person-related violence from staff ($p=0.038$).

Conclusion: Our pilot study demonstrates that HV toward EM residents exists with women experiencing more work-related and person-related violence. Limitations include small sample size and recall bias. Future endeavors should include larger scale studies with a more heterogeneous population.

10 Changes in Faculty Attendance at Resident Conferences After Transitioning to a Virtual Format

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Learning Objectives: Evaluate the effect of change from in-person to virtual resident conference on faculty attendance rates.

Background: The COVID-19 pandemic has forced many graduate medical education programs to move from in-person educational activities to a virtual format. Academic faculty are typically encouraged to attend resident conferences, but it is unclear if faculty attendance could be affected by these format changes.

Objectives: To examine changes in conference attendance after changing from in-person to virtual delivery. We hypothesized that faculty attendance would increase overall with the transition to virtual format.

Methods: This is a retrospective, observational study of faculty attendance at resident conferences between July 2020 to November 2020, abstracted from routinely collected conference records for 24 faculty. To reduce bias, this period was chosen due to changes in how conference attendance was recorded for faculty. Our exposure groups included faculty attending in-person conference versus virtual conference via Zoom©. The primary outcome was conference attendance. Calculations were performed using chi-squared testing.

Results: Overall, there were 1920 hours of conference, with 447 hours attended by faculty (23.3%). Attendance for in-person and virtual formats were 23.7% and 22.1%, respectively (Table 1). Comparison revealed no significant difference between conference format and conference attendance ($\chi 2 = 0.51$, p 0.47).

Conclusions: Faculty attendance at resident conferences did not change significantly after transitioning from in-person conference to virtual format. Limitations included a small sample size.

Table 1. Faculty attendance at resident conference with in-person or virtual formats.

Format	Attended	Not attended	Total	% Attended
In-person	341	1099	1440	23.7%
Virtual	106	374	480	22.1%

11 Changes in Resident Conference Attendance After Transitioning to a Virtual Format

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Learning Objectives: To examine changes in conference attendance across various methods of conference delivery: in-person, virtual conference, and virtual conference with a video-on requirement. We hypothesized that overall attendance would increase with the change to virtual format.

Background: The COVID-19 pandemic has forced many graduate medical education programs to move from in-person

educational activities to a virtual format. To our knowledge, little is known about how this format change impacts attendance.

Objectives: To examine changes in conference attendance across various methods of conference delivery: in-person, virtual conference, and virtual conference with a video-on requirement. We hypothesized that overall attendance would increase with the change to virtual format.

Methods: This is a retrospective, observational study of resident conference attendance from July 2019 to November 2020, abstracted from routinely collected records for all emergency medicine residents (n=30). Groups included residents attending in-person conference, virtual conference, and virtual conference with a camera-on requirement (Table 1). The primary outcome was conference attendance. An a priori subgroup analysis was performed to examine changes in attendance for the in-person format before onset of the pandemic versus during the pandemic. Chi-squared analyses were performed.

Results: Overall, there were 7800 hours of conference, with 5936 hours attended (76.1%). Attendance for in-person, virtual, and virtual with camera-on formats were 75.7%, 80.1%, and 69.5%, respectively (Table 2). A 3-way chi-squared analysis showed significant association between conference format and conference attendance ($\chi 2 = 29.3$, $p < 0.005$), with each 2-way comparison also being significant. There was no difference in in-person attendance before versus during the pandemic (75.1% vs 76.9%, $\chi 2 = 2.1$, $p = 0.14$).

Conclusions: Resident conference attendance significantly increased after transitioning from in-person to virtual format, but then decreased after adding a camera-on requirement. Limitations include crossing over academic years as well as smaller sample size of the virtual with camera-on format.

Table 1. Timeline of conference format changes.

Format	Time Periods
In-person	July 1, 2019 - March 4, 2020
Virtual	March 18, 2020 - June 30, 2020
In-person	July 1, 2020 - September 30, 2020
Virtual with camera on	October 1, 2020 - November 18, 2020

Table 2. Resident conference attendance among various conference formats.

Format	Attended (hours)	Not Attended	Possible Hours	% Attended
In-person	4271	1369	5640	75.7%
Virtual	1249	311	1560	80.1%
Virtual with camera on	417	183	600	69.5%

12 Characteristics of Traumatic Injury in Sexual Assault Patients

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Learning Objectives: To characterize types of injuries commonly associated with sexual assault and identify risk factors for these injuries.

Background: The ED remains at the forefront for the treatment of sexual assault (SA) patients. Many of these patients require treatment for traumatic injuries sustained during the assault, which can range from mild to severe. The risk factors for traumatic SA remain unclear.

Methods: Electronic ED records were reviewed retrospectively from a high volume level 1 Trauma center and nearby community hospital from July 2019 to July 2020 for patients age ≥13 years with a chief complaint of SA. Descriptive statistics, chi square and logistic regression were used to characterize demographics and identify factors associated with trauma.

Results: 157 patients met inclusion criteria. The mean age was 27.9 years old (range 13-79 years) and 92.4% were female. Adult patients (age >18 years) comprised of 78% of assaults compared to adolescents (age 13-18 years) at 22%. The assailants of these sexual assaults were reported as 61.2% acquaintance, 22.9% stranger and 15.9% intimate partner (IP). In 8.9% of cases, the patient reported an attack by multiple assailants. 57 (36.3%) patients exhibited trauma on presentation. 30 (24.8%) cases involved alcohol use (P=0.95) and 22 (14%) reported a drug facilitated assault (P=0.64) but neither was statistically associated with trauma. Chi square analysis showed an association of trauma with adult age (P<0.05) and assault by IP (P<0.05). 45 (28.6%) patients had minor injury described as abrasions, lacerations or contusions. Major trauma occurred in 12 (7.6%) patients, which consisted of complex fractures and nonfatal strangulation. Logistic regression determined that assault by IP (OR=2.6, 95% CI 1.1-6.5) and being an adult patient (OR=3.0, 95% CI 1.1 - 7.7) increased the risk of trauma. Assault by IP also increased the risk of nonfatal strangulation (OR=4.0, 95% CI 1.1-15.4).

Conclusion: Traumatic injuries from SA were mostly minor. IP violence was found to be a key risk factor for trauma and findings of nonfatal strangulation.

13 Clerkship Student Perceived Educational Effectiveness of Virtual Simulation

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Learning Objectives: To determine the perceived