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Title

Do Gender, Age, and Seniority Affect Resident Assessments of Emergency Medicine Teaching Faculty?

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graduate medical education in future studies

Methods: Experts in telehealth and education were defined as working at an education institution teaching both undergraduate and graduate medical education, had an active telehealth program, and had students and residents working and using telehealth at their institution. Those fitting the description were approached by a team at Thomas Jefferson and invited to be in the working group. Participants were confirmed and group was created in May 2019. Over the next 3 months, the group went through a modified Delphi method and repeated iterations to create a 15 point checklist.

Results: Eighteen experts were approached and 9 accepted to be part of the working group. Each member participated in 4 rounds. Round 1 included free responses to 'anything thought to be necessary to include in a checklist for an observer to evaluate a telehealth provider over video'. Round 2 asked participants to rank all entrants as 'must have' 'neutral' or 'remove'. Any answer with 80% removal recommendation did not continue on to round 3. Round 3 used the same format. Round 4 asked for participants to pick their top 15 of remaining answers to be in the checklist. The team removed answers that were redundant, and then compiled and ordered the answers for flow. The resulting checklist had 15 points.

Conclusion: Using a modified Delphi method, 9 experts were able to come to consensus on a telehealth visit checklist. Our next step will be a multicenter validation of the checklist with residents and for future use in telehealth education.

- Confirms the provider is using a secure, HIPAA compliant video conferencing platform
- Confirms adequate audio and video quality by confirming patient and provider can both hear and see each other
- Provider is clear on what can/can't be done over telehealth
- Confirms appropriate background environment including background, lighting and confidentiality
- Reviews any specific concerns regarding telemedicine consent
- If provider needs to turn away, informs patient of it (needing to look at chart, pictures, etc)
- Keeps eye contact with camera at eye level so provider appears to be looking at patient
- If there is technical difficulty, provider provides some basic troubleshooting (turning camera and mic on/off, changing browser, inputting information)
- If tech issues cannot be resolved, provider reaches out to tech support
- Demonstrates the ability to adjust/zoom the camera to visualize area of complaint
- Guides patient through self-administered physical exam with equipment available
- Asks to make observation of patient's home/environment for confidentiality and patient care as needed
- Provider has plan for emergencies – call 911, provide patient location, or refer to closest ER/UC
- Follows current national, state, and institutional policies on controlled substance prescription through telemedicine visits
- Provider appropriately disconnects from the visit and signs off (doesn't just hang up)

Figure 1. Telehealth Checklist for Simulation Cases

Table 1: Telehealth Checklist Consensus Committee Members.

Name	Title	Institution
Bart Damerschalk MD, MSc, FRCPC	Professor of Neurology Medical Director of the Center for Connected Care	Mayo Clinic College of Medicine & Science
Emily Hayden MD, MHPE	Director of Telemedicine Department of Emergency Medicine	Massachusetts General Hospital
Aditi Joshi MD, MSc	Medical Director, JeffConnect Assistant Professor, Department of Emergency Medicine Associate Director, Digital Health Scholarly Inquiry	Thomas Jefferson University Hospital Sidney Kimmel Medical College
Mark Lo MD, MS	Pediatric Emergency Medicine Medical Director, Telehealth and Digital Healthl Clinical Associate Professor of Pediatrics	Seattle Children's Hospital University of Washington School of Medicine
Neel K. Naik MD	Director of Emergency Medicine Simulation Education Attending Physician of Emergency Medicine	New York Presbyterian Weill Cornell Medicine
Dana Schinasi MD	Attending Physician, Pediatric Emergency Medicine Medical Director, Telehealth Programs	Ann & Robert H. Lurie Children's Hospital of Chicago Northwestern University Feinberg School of Medicine
Neal Sikka MD	Co-Chief, Section of Innovative Practice Associate Professor of Emergency Medicine	George Washington University
Eric Wallace MD, FASN	Associate Professor of Medicine UAB Medical Director of Telemedicine Associate Fellowship Program Director	University of Alabama at Birmingham
Jeremy Young MD, MPH	Assistant Professor of Clinical Medicine Director, ID Fellowship	University of Illinois-Chicago

21 Do Gender, Age, and Seniority Affect Resident Assessments of Emergency Medicine Teaching Faculty?

Dubey E, Meram S, Liu T, Reed B, Smylie L, Paxton J / WSU Detroit Medical Center; Wayne State University

Objective: This study aimed to determine whether quantitative competency scores of faculty member performance, as judged by categorical EM residents, appear to be influenced by the gender, age or seniority of the faculty member being assessed.

Methods: Teaching assessments completed by categorical EM residents at two high-volume urban, teaching hospitals over a period of 5 years were reviewed. Survey questions addressed five

key attributes of teaching faculty (teaching, clinical knowledge, administration, interpersonal skills, and scholarly contributions) on a five-item Likert scale, totaling 25 points per assessment. Only completed assessments (with all 5 questions scored) were included in the primary analysis. Those evaluations missing only 1 of the 5 responses were also analyzed separately.

Results: Resident assessments for 109 EM faculty were reviewed, including 27 junior faculty, and 36 females. The mean age for all faculty was 45.3 years, with mean ages of 45.8 and 44.3 years for males and females, respectively (p=.4274). A total of 12,733 evaluations were reviewed, with 6,056 (47.6%) completed assessments included in the primary analysis. Mean total assessment scores were 15.2 and 15.4 out of 25 possible points for males and females, respectively (p=.4326). Mean total assessment scores were similar for junior faculty and senior faculty at 15.8 vs. 15.9 respectively (p=.7660). Scores did not vary between different age categories: 15.5 for "40 and under", 15.0 for "41-50", 15.3 for "51-60", and 14.8 for ">60 years" (p=0.1369).

Conclusions: We found no significant gender- or age-based differences in faculty assessments by EM residents over a 5-year period at two urban emergency medicine residency programs. We also found no differences in assessments based on level of faculty training in the primary analysis, although senior faculty received higher scores than junior faculty in the secondary analysis group. Also, the resident PGY year of the evaluator had no effect on faculty assessment scores. Further study is needed with larger data sets and a more diverse resident cohort.

22 Does Emergency Department Sign-out Matter for Patient Safety and Patient Care Efficiency? A Survey of the Perception of Emergency Medicine Residents and Attending Physicians on the Effect of Sign-out

Trung T, Obando M, Franke E, Chu F, Marra E, Sleisinger T / Aventura Emergency Medicine

Background: The Joint Commission recognized improper handoffs/sign-outs as a major source of medical errors. Implementation of a standardized sign-out protocol in the ED was shown to lead to a decreased length of stay and increased frequency of ED bedside rounding. The question that has yet to be asked is: how does residency training affect one's perception of sign-out on safety and efficiency?

Objectives: To evaluate how the effect of sign-out on patient safety and patient care efficiency differs among ED residents and attending physicians. Methods: Investigators surveyed attending physicians and residents of five EM programs via email and paper surveys. 85 survey samples were completed, with 31 PGY-1s, 16 PGY-2s, 19 PGY-3s, and 18 attending physicians. Descriptive statistics and t-test for comparison of items on a Likert scale were obtained.

The measured outcome is the participants' perception of the relative importance of sign-out as a contributor to patient safety and care efficiency.

Results: 30% of respondents never received any training on proper sign-out. 13% considered sign-out as having "little effect" or "no effect" on patient safety and care efficiency. 74% thought sign-out affected safety "a great deal" or "a lot", with 53% similar answers on care efficiency. PGY-1 residents' perception on the relative importance of sign-out on care efficiency is lower than that of attending physicians' (p<0.05), but this difference disappears between groups (ANOVA, p>0.05). There is no statistical difference between groups (p>0.05) in the perception of the relative importance of sign-out on patient safety.

Conclusion: The results of this survey suggest that training enhances residents' perception of the effect of sign-out on patient care efficiency. Moreover, it suggests that greater efforts should be emphasized on sign-out education in the emergency department and the implementation a standardized sign-out protocol.
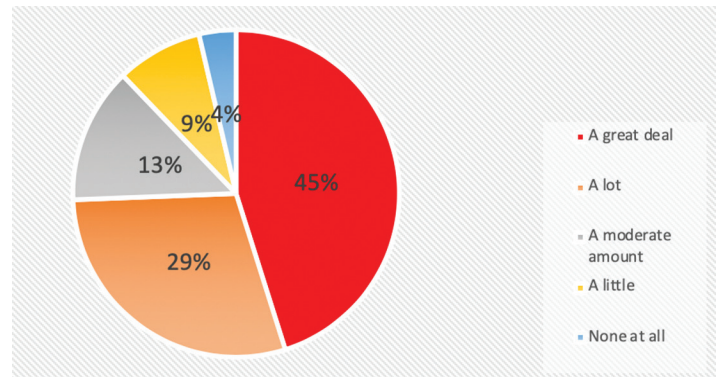

Figure 1. Perception on the effect of signout on efficiency of care.

*Bars denote standard error of the mean; a higher score means higher relative importance
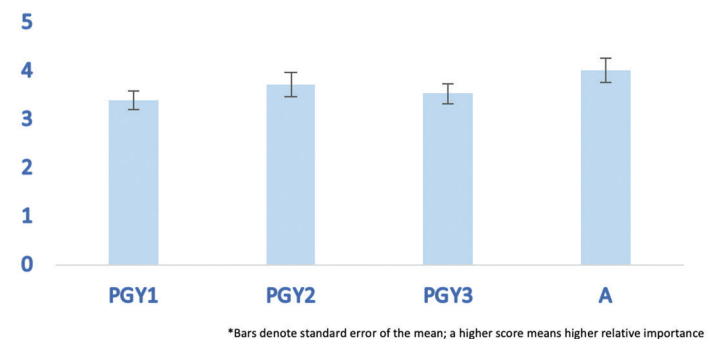
Figure 2. Perception of how sign-out affects patient safety among all residents and attending physicians.