

3 A Qualitative Study of Medical Educators' Perspectives on Resident Remediation

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Background: Residency training is designed to help trainees acquire the knowledge, skills, and attitudes necessary to enter independent practice. The expectation that learners will progress through training requires that educators identify and remediate poorly performing learners. There is little published information on characteristics of effective remediation to guide best practices.

Objectives: Given the limited data on characteristics of effective remediation, the authors proposed to characterize the remediation experience from the perspective of medical educators.

Methods: The authors conducted structured focus groups to describe common methods for identifying a struggling resident, triggers for remediation, factors that contribute to remediation, and when educators characterize remediation as successful. The authors then utilized a constructivist qualitative design with conventional content analysis to evaluate the data.

Results: Nineteen physicians across multiple specialties and institutions participated. Fifteen themes around remediation emerged including 8 unanticipated themes not addressed in the interview guide. Some themes addressed practical components of remediation (i.e. types of problems residents struggle with) while others reflected the educators' frustration with the process (i.e. barriers to implementation a remediation plan). The participants also focused on the impact that remediation has on the remediating resident and the residency community. Table 1 includes a selection of notable domains, sub themes, and representative quotations that emerged from the analysis.

Conclusions: The results of this study demonstrate a wide variation in opinions and practices surrounding the remediation of struggling learners. This is consistent with existing work that has shown a lack of a systematic or structured approach for remediation. These findings provide additional insight that can help improve existing remediation efforts and provide guidance for future work examining best practices in remediation.

Table 1. Selected domains, key themes, and representative quotations around remediation.

Domain	Key Themes	Representative Quotation
Role of remediation	Moral obligation for competence	"In the end our goal is to protect the public and to make sure that only the most competent physicians graduate."
Types of problems seen in struggling residents	Medical knowledge Interpersonal skills Clinical reasoning	"Well we see clinical reasoning deficits, especially as people transition [to a senior resident role] when they have to make high level difficult decisions."
Objective criteria for determination of remediation	Repeated poor evaluations	"And so if in a month I see a [score] below expectation[s] in an area, I sort of look at it and take note of it. If I see it twice or I see it from multiple people, that makes me pay attention to say, there might be something here and then to investigate that further."
Predictors of successful remediation	Learner insight and investment	"Insight is a key factor to success of helping a struggling learner."
Barriers to identification	Avoidance of responsibility by educator	"And so I think if there is remediation or struggle and you as a faculty person make that label, you're responsible... to do something about it. Take an action. I'm not sure everybody's willing to do that."
Role of program administration	PD should act as enforcer, initiate formal academic action	"The mentor cannot be the program director. Because the mentor is meant to be a coach not somebody doing an evaluation."
Actions that constitute remediation	Limit scope of practice including change in clinical schedule External resources	"And put them at a lower acuity hospital site if need-be."
Barriers to implementing remediation plan	Emotional response of faculty to learner Inexperienced faculty Learner unwilling/unable to participate in remediation	"I need to be able to be the bad cop guy on occasion and that was really hard for me to do when I had even more emotional investment in the residents." "I also think that remediation and the delays in remediation, a lot of it is training for people in how to do remediation... We hope that we're professional educators if we do this long enough, but our background is much different than someone who has a strictly, an educational background"
Impact of remediation on others	Resident impact: Resentment	"I found... residents who after a while, are angry at the fact that they have to cover for someone else."

4 An Assessment of Emotional Intelligence in Emergency Medicine Resident Physicians

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Background: Organizational psychology literature is replete with studies that highlight the role of emotional intelligence (EI) in leadership; job performance; stress management; and burnout protection. To date, no studies address EI in emergency medicine (EM) residents.

Objectives: The authors sought to define the EI profile for EM residents, and identify strengths and weaknesses in EI competencies to better inform curricular changes.

Methods: Post-graduate year residents (i.e., PGY-1s, -2s, -3s) of the authors' EM program completed the Emotional Quotient Inventory (EQ-i 2.0) Assessment, a validated tool derived from the Bar-On psychological model of EI, and offered by Multi-Health Systems (MHS). A weblink was emailed to residents, directing them to an anonymous 133-item questionnaire. Scores were calculated electronically

by MHS; these included 5 composite scores (i.e., self-perception, self-expression, interpersonal, decision making, stress management) with 15 sub-scores on EI competencies. Differences were examined across gender, age, and training year. Scores are reported as means with 95% CIs. No incentives were offered. The study was IRB approved.

Results: 36 residents completed the EQ-i (response rate 100%). Results were normed to the general US population (mean 100, SD 15). Total mean EI was 104 (95%CI, 99.8-108); this was higher in female (107) vs. male residents (101). No differences were noted across age. Highest composite scores were in interpersonal skills (107; 95%CI, 100-108) and stress management (105; 95%CI, 101-109). Cohort competency strengths were in self-actualization (107); empathy (107); interpersonal relationships (106); impulse control (106); and stress tolerance (106). The lowest sub-category score across all years was in assertiveness (98). PGY-2s demonstrated the lowest mean EI score (95) versus PGY-1s (104) and PGY-3s (110). Self-regard, assertiveness, independence, problem solving, and optimism were lowest in PGY-2s. PGY-3s scored highest in nearly all categories.

Conclusions: EI in EM residents approximated the mean for the general population. Assertiveness was identified as a weakness across all trainees. Findings will be used to inform programmatic changes to optimize self-preservation skills in trainees, specifically in PGY-2s.

5 Assessment of Post-graduate Year Level And Unplanned Floor To ICU Transfer Within 24 Hours from the Emergency Department

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Background: Academic EDs utilize residents of different post-graduate year (PGY) levels to provide clinical care for patients under the supervision of attendings. Admitted patients that have an unplanned transfer from the floor to the ICU within 24 hours have been shown to have higher mortality and are a potential focus for quality improvement. It is unclear if the level of training of the EM resident correlates with unplanned transfers.

Objectives: To determine if PGY level of EM resident is associated with unplanned floor to ICU transfer within 24 hours from the ED.

Methods: This is a retrospective chart review with a primary outcome measure of unplanned floor to ICU transfer within 24 hours after ED admission. The variable of primary interest is PGY level. The study was done at an urban, academic tertiary care referral center with an affiliated 3 year EM residency. All patients presenting to the ED between 07/01/2012 to 06/30/2015 were eligible. Logistic regression was used to test for significance and to control for confounders such as emergency severity index (ESI), age, gender, unstable vital

signs at triage, patients originally in ED observation, ED length of stay (LOS), and time to doctor. Odds ratios (OR) with 95% confidence interval (CI) was used as the primary effect estimate.

Results: We reviewed the records of a total of 60,609 admitted patients. Of these 1,769 (2.9%) were unplanned transfers from floor to ICU within 24 hours. The odds ratios of primary provider roles as predictor of floor to ICU transfers is included in Table 1. Of note none were significant predictors with p-values all > 0.05. While with each EM PGY level there is a decrease in the ORs of unplanned floor to ICU, this is not significant. Unstable vital signs at triage, age, ESI, ED LOS, original ED observation status that required admission, time of arrival to time seen by physician, and gender were significant predictors of unplanned floor to ICU in 24 hours with a p-value of < 0.05.

Conclusions: This data shows that there was no significant difference between the PGY level of the EM resident and unplanned floor to ICU transfer within the first 24 hours. Identification of variables significantly related with unplanned floor to ICU transfer within 24 hours maybe valuable to prevent this adverse event.

Table 1. Odds Ratio of Primary Provider Role as Predictors of Unplanned Floor to ICU Transfers in 24 hours of Admission.

	Odds Ratio	95% Confidence Interval	p-value
EM3	0.42	(0.37-0.47)	0.45
EM2	0.43	(0.38-0.48)	0.42
EM1	0.47	(0.42-0.52)	0.37
Non-EM Residents	0.44	(0.39-0.49)	0.40
Student	0.27	(0.22-0.32)	0.59
Attending Only	0.21	(0.20-0.22)	0.14

6 Barriers to Education Scholarship for Core Educators: a Needs Assessment and Proposed Solutions

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Background: CORD seeks to support educators in their scholarly pursuits. Educators may be limited by time, funding, access to expertise, and lack of mentorship.

Objectives: To evaluate barriers educators face in performing scholarship and identify potential strategies for success.

Methods: Emergency Medicine educators completed an online survey consisting of multiple choice, rating scale,