Exploring the Effect of Reason for Clinical Competency Committee (DOMEC) Referral on Internship Outcome

Research Highlights
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Purpose: Preparing medical students to become competent physicians remains the fundamental goal of medical education. At our institution, during the internal medicine clerkship we grade learners with emphasis on the RIME (Reporter, Interpreter, Manager, Educator) scale and a series of final examinations, including NBME. Ratings of inconsistent reporter or below will prompt referral to our internal medicine competency committee (DOMEC). In this investigation, we explored the reason why a student is presented to our competency committee and how the reason for referral might provide greater insight into the low USMLE scores and ratings given by program directors.

Methods: We included USUHS students from the graduation classes of 2013-2016 (671 students) who have completed the internal medicine clerkship and proceeded to internship. We used an internship program director survey, for which we have gathered validity evidence, and USMLE step scores as outcome measures. We classified the reasons for DOMEC presentation into three groups: expertise, professionalism (attitude), and mix of both. We hypothesize that we will see differences in performance specifically between those students who present for expertise and professionalism concerns.

Results: The students in our sample were 70% male and evenly distributed across graduation year. Fishers exact tests found significant distributions in remediation (p < .0001), USMLE Step 1 (p < .0001) and Step2CK (p = 0.0029) pass rates between students who presented to DOMEC and those who did not, with 41.1% requiring remediation for the Internal Medicine clerkship, 8.6% failing the USMLE Step1 exam, and 7.3% failing the USMLE Step2CK exam. For referral reason, we found significant distributions in remediation (p < .0001), with 22.2% of those who presented for Attitude, Expertise (56.4%), Both (76.9%) Cant Determine (2.7%), and other reasons (100%) requiring remediation for the Internal Medicine clerkship.

Logistic regression models showed that after controlling for MCAT score, undergraduate GPA, and curriculum, DOMEC presentation significantly contributed to 55% of the variance for remediation (p < .0001), 21% for USMLE Step1 (p < .0001), 15% for USMLE Step2CK (p < .0001), 15% for USMLE Step3 (p < .0001), and less than 10% for Overall Clinical Competence (p = 0.0028), Communication and Interpersonal Skills (p = 0.0041), Professionalism (p = 0.0060), Patient Care (p = 0.0004), Medical Knowledge (p < .0001), Military Unique Practice (p = 0.0403), and Systems-Based Practice & Practice-Based Learning and Improvement (p = 0.0025).

DOMEC presentation reason significantly contributed to 42% of the variance for USMLE Step1 (p = 0.0042), and 28% for USMLE Step2CK first time score (p = 0.0082). Students referred to DOMEC
for Attitude were 9 times more likely to have lower scores on USMLE Step1 (OR = 9.302 [2.414, 35.841]) and 7 times more likely to have lower scores on USMLE Step2CK (OR = 6.679 [1.735, 25.713]) than peers referred for Expertise concerns. No significant results were found when exploring the effect of DOMEC presentation reason on professionalism concerns during internship.

**Discussion:** Our results indicate that we continue to find that presentation to DOMEC indicates a higher chance of Step1 failure, Step2CK failure, and difficulties during internship, thus identifying an at-risk cohort. We have not, yet, been able to tease out a significant association between reason for DOMEC presentation and future problems, this is a topic currently being explored in greater depth.

**Significance:** Presentation to DOMEC is a significant indicator of problems during and after medical school. A simple description of reason for presentation (Attitude, Expertise, Both, Other) can help identify problems during medical school, but a more in-depth look into these reasons may be necessary to tease out what problems seem to be impacting performance after graduation.
Artifacts of tension: How meaning emerges from resident competency-based assessments

Innovation Highlights
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Purpose: Even after participating in the NRMP Main Match and SOAP, increasing numbers of trainees are unable to secure both preliminary and advanced positions during the same cycle, turning to program leadership for guidance. Unmatched PGY1 interns pose specific challenges during a second Match. Limited resources exist to help program leadership guide them. Over two classes, five of our residents were unmatched beyond their PGY1 year. We sought to identify strategies to secure interview invitations and a successful match, while ensuring PGY1 requirements were accomplished and Transitional Year Milestones were met.

Methods: Leadership met with each intern to discuss their challenges during the initial match cycle; individualized goals were established. We reviewed the administrative timeline to ensure all PGY1 requirements were met while allowing sufficient interview time. We identified online resources available to unmatched residents. Guidance was provided to improve and update each intern's ERAS application. The Program Director provided new recommendation letters to validate early PGY1 successes. We advocated for early USMLE/COMLEX Step 3 completion to demonstrate academic competence. To increase interview invitations, we ensured interns and program leadership leveraged personal networks at various medical centers. We worked individually on interview preparation, conducting several mock interviews.

Results: Under this plan, we were 100% successful. All five residents opted out of taking a gap year, entering into the Main Match. One resident matched into Family Medicine, one into Emergency Medicine, and three into Internal Medicine.

Discussion: As formal guidance on matching unmatched PGY-1 residents into categorical positions is lacking, we found that significant opportunities exist for the undergraduate and graduate medical education communities to focus on this important population and address an unmet need with evidence-based or structured resources to help both trainees and faculty.

Significance: As the GME community struggles to have enough spots for medical school graduates, our approach and focused method can be used to assist Program Leaders in guiding their unmatched PGY1 residents.
Analyzing expert criteria for authentic resident communication skills

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Purpose: Effective communication is context dependent and work-process oriented requiring highly-honed interactional skills. Training and assessing the skills require flexible holistic approaches rather than itemized or numeric scoring. Despite this discrepancy between assessment criteria and real-world practice, few efforts have embraced a holistic understanding of how physician-patient communication skills should unfold in real patient care.

Our project investigates what constitutes physician communication skills in real patient encounters. This study focuses on what experts refer to when they speak about physicians communication skills and what is treated as important when they evaluate residents communication skills during real patient encounters. We expect to grasp the nuance and holistic view of context-dependent communication skills situated in real patient encounters. This effort will extend our knowledge of communication skills to improve assessment and feedback practices.

Methods: Southern Illinois University School of Medicine (SIUSOM) has conducted the Resident Audio-Recording Project. The residents are recorded annually as a part of their program for formative assessment of communication skills in real patient encounters. The structure of an evaluation panel: listen to the recording with the transcript, construct notes individually, then jointly develop feedback comments for the resident. The panel uses an assessment form that facilitates open-ended narratives.

For this study, the evaluation panel discussions were recorded and transcribed. Forty-one (89%) panel discussions out of 46 one year evaluation sessions were analyzed. For data analysis, we use grounded theory to discover themes emerging from the data. We received an IRB approval at SIUSOM. The data analysis process started with calibration meetings to discuss coding rules and process to enhance inter-rater agreement in the coding process. The team coded seven transcripts together throughout twelve two-hour coding meetings. The remaining transcripts were divided and being coded individually.

Results: We created 161 codes and clustered them into twelve categories. Results showed that existing elements of communication skills are connected and inter-dependent around two concepts of thoroughness and natural flow that were neither sufficiently called for in the current assessment form nor received much treatment in the literature. These included (1) thoroughness within a boundary set by agenda setting, (2) making agenda setting explicit to all parties up front, (3) dynamics between natural and controlled flow, (4) question designing using both open-ended and closed questions, (5) understanding patient perspective and environments as pre-condition for patient education, (6) shared decision-making requiring patient
education, and (7) empathy multifaceted and demonstrated in multiple ways. Without an explicit agenda setting, residents often paid incomplete attention to a patient issue and dropped some important issues. This superficiality leads to a lack of comprehensive and concrete plans. Moreover, thoroughness is related to a doctor’s ability to conduct patient education and shared decision-making because it entails an in-depth exploration of patients’ beliefs and expectations. Natural flow involves communication skills to be natural and conversational while addressing patient health issues. It requires residents’ active listening that follows the conversation. Natural flow is an opposite concept to a mechanical or business-like interview, which helps a patient feel at ease and feel the residents’ cordiality and empathy.

**Discussion:** Findings can be utilized to improve the current training and assessment approach of physician-patient communication skills, especially formative feedback practices. The interconnectivity among the communication skills criteria needs to be emphasized for formative feedback practices rather than tallying occurrences of sought-after behaviors using a rubric.

**Significance:** Our study identified what aspects of authentic communication performance an expert might attend to in making global assessments. The main focus of the expected outcome is to improve the residents’ competence to represent holistic communication skills in real patient care.
The Quality of Narrative Comments Generated by a Direct Observation Tool and Their Congruence with Checklist Scores

Research Highlights
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Purpose: While many direct observation tools are designed to generate both quantitative scores (via checklists or global ratings) and narrative comments, validity arguments have largely focused on the quantitative scores. While a number of studies have examined the quality of comments from end rotation evaluations and multi-source feedback, surprisingly few studies have examined the quality of comments generated by a direct observation tool. One such study focused on the verbal (not written) comments of completed Mini-CEXs and found that faculty provided specific recommendations but under-utilized the feedback methods of self-assessment and action planning. In addition, we know very little about the relationship between the information provided by the checklist scores and the comments. Several studies have reported an association between lower quantitative scores and more balanced (reinforcing and corrective) comments. But research has not yet examined the congruence between the valence (reinforcing/positive or corrective/negative) and the content of the two types of information conveyed by a direct observation tool. We sought to address these two gaps in the literature the quality of written comments generated by a direct observation tool (as opposed to an end-rotation or multi-source feedback) and the congruence between the quantitative and narrative information. We used the comments generated by a direct observation tool in psychiatry, the Pharmacotherapy-Structured Clinical Observation (P-SCO) tool.

Methods: As part of a direct observation assessment program, faculty completed the P-SCO and gave feedback to third year psychiatry residents after observing them perform a follow up visit. The 601 completed P-SCOs from four academic years were de-identified. We randomly sampled 25% of the completed P-SCOs from each year for a total sample of 152. Two authors independently coded the comments on each P-SCO. To assess quality, comments were coded for valence (reinforcing or corrective), behavioral specificity, and content. To assess congruence, the authors calculated the proportion of the checklist scores associated with a comment of the same content and valence as well as the proportion of comments associated with a checklist score of the same valence and content.

Results: Each observation averaged over 5 discrete comments. 91% of the comments were behaviorally specific. 60% were reinforcing, 40% corrective. 8 clinically meaningful themes were identified, including two constructs not adequately represented by the checklist. Most (nearly 70%) of the low and high checklist scores were associated with a comment of the same valence and content. However, only 50% of the overall comments were associated with a checklist score of the same valence and content.

Discussion: A direct observation tool such as the P-SCO generates written comments that are behaviorally specific, clinically relevant, and both corrective and reinforcing. The narrative comments elaborated on the behaviors deemed high or low by the checklist scores, thereby enhancing the value of the score as feedback for learning. In addition, the narrative comments provided feedback not conveyed by the checklist.

Significance: The narrative generated by a direct observation tool add value in several regards.
First, the narrative comments are high quality. Second, the narrative comments not only elaborate on quantitative scores but also provide corrective or reinforcing feedback on behaviors not identified as such by the checklist. Third, the narrative comments included two themes not adequately captured by the checklist which suggests that thematic coding of comments can be used as strategy to improve the content validity of a checklist.