



Justifications for Discrepancies Between Competency Committee and Program Director Recommended Resident Supervisory Roles

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ABSTRACT

OBJECTIVE: To explore justifications for differences between summative entrustment decisions made about pediatric residents by individuals who are charged with the review of residents (clinical competency committee, or CCC, members) and those who ultimately make final summative decisions about resident performance (program directors, or PDs).

METHODS: Individual CCC member and PD supervisory role categorizations were made in the 2015 to 2016 academic year at 14 pediatric residency programs, placing residents into 1 of 5 progressive supervisory roles. When PD recommendations differed from CCC members, a free-text justification was requested. Free-text responses were analyzed using manifest content analysis.

RESULTS: In total, 801 supervisory role categorizations were made by both CCC members and PDs, with the same recommendations made in 685 cases. In the 116 instances of discrepancy, PDs assigned a lower level of supervisory responsibility

(n = 73) more often than a greater one (n = 43). When moving residents to a greater supervisory role category, PDs had more justifications anchored in resident performance than experience. When moving residents to a lower supervisory role categorization, PDs conversely noted experience more than performance.

CONCLUSIONS: PDs provide more justifications anchored in resident performance when moving residents to a greater supervisory role category compared with CCC members. However, when moving residents to a lower supervisory role categorization, they note experience more than performance. These patterns may or may not be entirely consistent with a competency-based approach and should be explored further.

KEYWORDS: clinical competency committee; entrustment; medical education; resident assessment

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WHAT'S NEW

Program directors provide more justifications anchored in resident performance when moving residents to a higher supervisory role category compared with clinical competency committee members. However, when moving residents to a lower supervisory role categorization, they note experience more than performance.

DETERMINATION OF TRAINEE entrustment level, that is how much a trainee can or cannot be trusted to perform a certain activity and how much supervision they need to do so, has become one of the predominant approaches to assessment in competency-based medical education over

the past several years.¹⁻³ Most research in this area has focused on entrustment decisions made by frontline assessors (ie, those working with trainees in the clinical learning environment).⁴⁻⁷ However, summative assessment using clinical competency committees (CCCs), which review trainee assessment data to make summative decisions about performance, removed from the clinical environment is now a requirement of the Accreditation Council for Graduate Medical Education.⁸ Literature to date on CCCs has focused largely on 2 areas: 1) detailing how to design a CCC⁹⁻¹² and 2) potential best practices for CCCs to consider based on expert opinion and personal experience at individual residency programs.¹³⁻¹⁷ Future efforts should extend beyond CCC

structure and process to consider the outcomes of CCC reviews, as this is a critical component of learner assessment.

This study seeks to address existing gaps in the literature about entrustment and CCCs through exploring the relationship between individual CCC member— and program director (PD)-recommended supervisory role categorizations (ie, what responsibility a resident is given for serving as a supervisor for other trainees), a type of entrustment decision. Namely, we explore justifications for PDs, who ultimately make summative decisions about resident performance, changing the recommended categorizations made by individual CCC members, who are charged with the review of resident performance data. These justifications are important to understand, as they provide insight into the evolution of summative decisions made about resident performance, which allows future interrogation of the defensibility of these decisions and how they are made.

The entrustment inference (“readiness to supervise others”) considered in this study is one of several defined by the Pediatric Milestone Assessment Collaborative (an effort of Association of Pediatric Program Directors Longitudinal Educational Assessment Research Network, the American Board of Pediatrics, and the National Board of Medical Examiners),^{18,19} which embraces a broader view of entrustment^{18,19} than simply focusing on traditional entrustable professional activities that serve to determine level of supervision needed for professional activities germane to the specialty.^{1,2,20,21}

METHODS

STUDY SETTING

This multisite study was conducted during the 2015 to 2016 academic year. Fourteen pediatric residency programs (Table 1) in the Association of Pediatric Program Directors Longitudinal Educational Assessment Research Network participated.

Site leads were asked to recruit a convenience sample of CCC members and all PDs at their programs via e-mail. Eligible study subjects at each program included current CCC members, all categorical pediatrics residents, and PDs.

DATA COLLECTION

Individual CCC member and PD supervision categorizations were made in conjunction with CCC meetings in the Fall and Spring of the 2015 to 2016 academic year. The individual CCC members who made the supervision categorizations were those who were assigned to review performance data for residents to make these decisions as well as assign milestone levels that would subsequently be vetted by the full CCC. Both individual CCC members and PDs were asked to categorize residents as follows: 1) may not serve as a supervisory resident; 2) may serve as a supervisory resident in some settings, but is just above the borderline/marginal mark for serving in this role; 3) may

serve as a supervisory resident in some settings; 4) may serve as a supervisory resident in all settings, but is just above the borderline/marginal mark for serving in this role; or 5) may serve as a supervisory resident in all settings.

Both groups indicated their recommendations for supervisory roles via an online survey. After individual CCC members made their supervision categorizations, PDs provided their own recommendations. We did not collect data on what PDs did between CCC members making their categorizations and PDs making their categorizations (eg, reviewing resident assessment data, discussing with other members of the CCC). When the PD recommendation differed from that of the CCC member, the PD was asked for justification via a free-text response.

ANALYSIS

SUPERVISORY ROLE CATEGORIZATION COMPARISON

To determine discrepancies between CCC member and PD categorizations, we simply compared categorizations side by side.

DISAGREEMENT JUSTIFICATIONS

The free-text responses provided when PDs disagreed with CCC member supervisory role categorizations were coded using manifest content analysis. This analytic plan has the express interest of coding written responses to allow content frequency to be counted.²² Dedoose (version 7.5.15, SocioCultural Research Consultants, Manhattan Beach, Calif) and Microsoft Excel (Microsoft, Redmond, Wash) were used to facilitate organization of coded data. To begin, 3 authors (D.J.S., S.P., and N.B.) independently created codes based on the data. Participants often provided justifications that encompassed more than 1 idea. These responses were assigned multiple codes to capture each idea. For each justification, a code was used only once. Following independent coding, the 3 primary coders reconciled codes and established a codebook. Two secondary coders (S.E. and M.B.) then reviewed all of the coded data and offered insights into changes to both the codebook as well as the assignment of codes to participant responses. Finally, all 5 primary and secondary coders worked together to establish a final codebook and assignment of those codes to all participant responses.

The institutional review board at Cincinnati Children’s Hospital Medical Center (lead site) granted exempt status to this study. The institutional review board at each participating program also reviewed and approved this study.

RESULTS

In total, 801 supervisory role categorizations were made by both individual CCC members (84/155 CCC members at study sites) and PDs (14/14 at participating programs). CCC composition among study programs is shown in Table 1. All but 2 sites had PDs as members of the CCC.

Table 1. Characteristics of Study Programs

Program	Program Size (Including Combined Programs)	Assessment Data Reviewed
Boston Combined Residency Program in Pediatrics (Boston Children's Hospital/ Boston Medical Center)	150	Rotation assessment forms, teaching evaluations by students, in-training exam score, professionalism measures, anecdotal feedback from chiefs brought forth during CCC discussion
Cincinnati Children's Hospital Medical Center	170	Rotation assessment forms, in-training exam scores
Duke University	51	Rotation assessment forms, in-training exam scores, compliance with procedure logs, duty hours reporting, conference attendance Composite milestone scores for each competency based on an average from all faculty and peer assessments over the prior 6-month period are projected while the resident is being presented at CCC meeting
Icahn School of Medicine at Mount Sinai	60	Rotation assessment forms, professionalism assessments, instances of perceived unprofessionalism, in-training exam scores, multisource feedback assessments, completion of procedure logging, resident bi-annual self-assessment of milestones, and resident's individualized learning plan (once each year)
Massachusetts General Hospital	49	Rotation assessment forms, professionalism evaluations from program coordinators, rotation faculty group assessment
Naval Medical Center San Diego	22	Rotation assessment forms, completion of administrative requirements, lecture evaluations (morning report, resident lecture, morbidity and mortality, journal club, clinicopathologic conference), structured clinical observations, in-training exam scores, 360 assessment forms
Phoenix Children's Hospital/ Maricopa Medical Center Pediatric Residency Program	96	Rotation reviews, individualized learning plans, procedure logs, in-training exam scores, and professionalism measures
St. Christopher's Hospital for Children	76	Rotation assessment forms, professionalism measures (e.g., duty hour logging), "play of the week" and other praise from staff, in-training exam scores, evidence-based medicine evaluations
University of Arizona	65	Rotation assessments forms, structured clinical observations (at least 1 observation per biannual period, includes milestone assessments plus checklist of observed behaviors), quality improvement project evaluations with milestones assessment, self-directed learning assessments (from Program Director) with milestone assessment
University of California Davis	39	Milestone assessments and narrative comments (faculty, peer, nursing, medical student) and emails/communications about professionalism concerns are reviewed on an ad hoc basis
University of Illinois at Chicago	54	Rotation assessment forms, sign-out assessment forms residents complete for one another, on-the-fly feedback forms (positive or negative) that are placed in the resident's file
University of Rochester	46	Faculty/peer/360 assessments, in-training exam scores, praise/concern cards, compliance with program requirements (attendance, evaluation completion, procedure completion, educational prescriptions), progress in optional project-based tracks, resident 6-month goals, quality improvement project, critical incident reflections
University of Texas at Austin	60	Rotation assessment forms, in-training exam performance, procedural data, peer evaluations
University of Wisconsin	45	Rotation assessment forms, peer assessments, mean milestone scores in core competencies compared to peers, in-training exam scores and trend, conference attendance, inpatient nursing assessments, continuity clinic patient assessments, medical student assessments, career plans

CCC indicates clinical competency committee.

SUPERVISORY ROLE CATEGORIZATION COMPARISON

PDs agreed with CCC members categorizations 77% (279/359) of time in Fall 2015 and 91% (404/441) of the time in Spring 2016.

DISAGREEMENT JUSTIFICATIONS

In the 116 discrepant instances, PDs assigned a lower level of supervisory responsibility (n = 73) more often than a greater one (n = 43) compared with CCC members.

When moving residents to a greater supervisory role category, PDs did not provide a justification in 13

instances. For the remaining situations, they provided 60 justifications (Table 2). PDs had more justifications anchored in performance (eg, demonstrated supervisory ability, demonstrated clinical performance, developmental progression, trustworthiness, and interpersonal and communication skills) than anchored in resident experience (eg, sufficient experience), 19 compared with 7, respectively.

When moving residents to a lower supervisory role categorization, PDs did not provide a justification in only 2 instances. For the remaining 71 instances, PDs provided 123 justifications. Forty-two of these justifications related

Table 2. PD Most Common Justifications for Supervisory Role Categorization Change

Moving to Higher Level	Moving to Lower Level
No concerns (n = 13)	Lack of experience (n = 40)*
No justification given (n = 13)	Setting-dependent concerns (n = 34)
Demonstrated supervisor ability (n = 6)†	Performance below peers (n = 8)†
Ready to supervise (n = 6)	Lack of demonstrated ability (n = 6)†
On target (n = 6)	Training level reference (n = 3)*
Sufficient experience (n = 4)*	Not ready to be a supervisor (n = 3)
Setting-dependent concerns (n = 3)	Clinical skills concerns (n = 3)†
Developmental progression (n = 3)†	Borderline performance (n = 3)†
Training level reference (n = 3)*	Sufficient experience but something else leading to withholding additional advancement (n = 2)*
Borderline performance (n = 2)†	Demonstrated performance (n = 2)†
Ready for more autonomy (n = 2)	Concerns when supervising (n = 2)†
PD direct observation (n = 2)†	No justification given (n = 2)
Data entry error (n = 1)	Insufficient performance data (n = 2)†
Performance improvement plan in place (n = 1)†	Interpersonal and communication skills concerns (n = 2)†
Trustworthy (n = 1)†	PD direct observation (n = 2)†
Interpersonal and communication skills (n = 1)†	Developmental progression (n = 2)†
Informal feedback more concerning than actual assessment forms (n = 1)	Globally below peers but does not pose patient safety risk (n = 2)†
Insufficient milestones data (n = 1)	Clinical reasoning concerns (n = 1)†
Strong performance (n = 1)†	Unspecified "issues" (n = 1)
Performance above peers (n = 1)†	Confidence concerns (n = 1)
Demonstrated clinical performance (n = 1)†	Clinical decision-making concerns (n = 1)†
CCC member confusion (n = 1)	Ready for some, not all supervisory responsibilities (n = 1)
	New/recent concerns (n = 1)
	Requires supervision him/herself (n = 1)

PD indicates program director; and CCC, clinical competency committee.

*Experienced-based justification.

†Performance-based justification.

to the experience, or lack thereof, of residents, whereas very few specifically referenced resident performance.

In 6 additional instances, PDs assigned a category when the CCC member did not assign any category, providing these justifications: demonstrated knowledge (n = 3), demonstrated skill (1), PD direct observation (1), lack of data (1), CCC member error (1), developmental progression (1), and training level reference (1). This final code was used when participants reported that the resident's training level was used to make or adjust supervision categorizations.

PDs occasionally used the same justifications for moving residents up as for moving them down. Examples of this include lack of data, PD direct observation, clinical setting-dependent concerns, and training level reference.

DISCUSSION

PDs describe using demonstrated performance of residents drive a move to greater levels of supervisory responsibility compared with CCC member categorizations. In contemporary medical education, where moving trainees along at a pace that matches their development has been advocated,²³ this finding aligns with competency-based education efforts. However, moving residents down based on experience, which PDs also did in this study, may or may not align with competency-based education efforts. If PDs are moving residents down based solely on experience, this would not be consistent with competency-based efforts. However, if PDs believe there are minimum levels of experience, such as an intensive care unit rotation, that

are needed to advance to certain responsibilities regardless of performance this could be consistent with competency-based education efforts.²⁴ Future study should explore this further, seeking to understand the extent to which experience should drive an educational framework that is fundamentally focused on demonstrated performance and not on experience.

With the exception of PD direct observation, justifications used to move a resident both up and down (ie, lack of data, clinical setting-dependent concerns, and training level reference) were not based on their performance. In moving a resident up, these justifications provide a sense of giving a resident the "benefit of the doubt" or striving to push them from their current to next zone of development with appropriate scaffolding.²⁵ In moving a resident down, these justifications suggest a lack of evidence to support the next supervisory role. The same justification with divergent actions may reflect the environment within each program, PD characteristics, or variation in the interpretation of resident data. This is an area for further study.

LIMITATIONS

This study has limitations to consider. By study design, PDs saw CCC categorizations before assigning their own because it matches the real-world functioning in which CCC member reviews typically are presented to PDs. However, these CCC member decisions may have biased PD decisions, or possibly vice versa. Second, we do not know what PDs did between reviewing the CCC member categorizations and making their own categorizations. For

example, they may have reviewed assessment data for that resident or discussed the resident with other CCC members. Third, the supervisory role categorizations may not be consistent with how some programs make advancement decisions, thus limiting the generalizability of our findings. Fourth, we did not explore reasons for why CCC member and PD decisions were concordant when they were. Determining this should be a high priority for future study, especially for establishing validity evidence.

CONCLUSIONS

In this study, we found that when differences exist between CCC member and PD supervisory role categorizations, performance-based justifications supporting competency-based assessment are more likely provided when moving a resident up a category rather than moving them down. Using experience to move residents down a level may or may not be entirely consistent with a competency-based approach. Moving forward, the role that experience plays in competency-based advancement should be discussed, seeking a common mental model.

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