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How do Emergency Medicine Attending Physicians Evaluate their Trainees? A Multicenter Focus Group Study

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Abstract

Background: In-training evaluations have an invaluable role in assessing the clinical competency of the trainee. In this study, we explore which trainees' characteristics have the strongest impact on their evaluation and whether these characteristics fit in the Royal College of Physicians and Surgeons of Canada's CanMEDS Physician Competency Framework. Based on the seven roles that physicians need to have, the framework describes the capabilities that physicians need to produce better patient outcomes.

Methods: Emergency medicine attending physicians involved in supervising residents at the four main emergency medicine residency training sites in Riyadh, Saudi Arabia participated in focus group sessions to identify resident characteristics most frequently noted and their impact on the overall evaluation. The interview process followed a standard format. All interviews were audiotaped, and field notes were taken. Two independent coders coded the interviews using CanMEDS competencies as a framework. The frequency of each mention of a particular characteristic was recorded. Following the interviews, participants were also asked to complete a questionnaire about the CanMEDS competencies they routinely or rarely assess. Results are presented in a descriptive fashion.

Results: A total of six focus groups sessions were held with 19 participants. The focus group sessions yielded a total of 145 features, or characteristics. Characteristics relating to medical expertise competencies had the strongest impact, followed by professionalism-related competencies, while characteristics relating to health advocacy and managerial skills had the weakest impact on the evaluation.

Conclusion: Our results are consistent with previous literature in showing that evaluators tend to base their evaluations on certain competencies and fail to evaluate competencies across the entire CanMEDS spectrum.

Keywords: Emergency medicine; Residency training; Evaluation; Assessment; Feedback; CanMED

Background

In-training evaluations represent an integral part of assessing trainees' clinical competence and progress. The quality of these evaluation reports, most of which are done by clinical supervisors, have been repeatedly questioned in the literature [1-3]. Emergency medicine is one of the most challenging environments when it comes to evaluating trainees and assessing their performance due to factors such as shift work and scheduling conflicts that lead to evaluation of trainees based on short encounters. Likewise, emergency department overcrowding can have a significant impact on adequate clinical exposure and supervision. Last but not least is the complexity of components being evaluated in a learning emergency medicine resident [4,5]. These factors, to name only a few, make it extremely challenging to deliver high-quality clinical supervision and evaluation in such a chaotic context.

A number of studies have addressed what trainees expect from their trainers [6,7]. However, to our knowledge, the opposite scenario— what trainers expect from their trainees—have not been explored in the emergency medicine literature. The primary objective of this study was to explore which characteristics have the strongest positive or negative impact on residents' evaluation results among emergency medicine attending physicians and educators. In addition, because the Saudi Commission of Health Specialties has formally adopted CanMEDS as an evaluation framework, we aimed to examine whether the current evaluation process adequately assesses different CanMEDS competencies and whether factors unrelated to CanMEDS affect the evaluation [8,9].

Methods

The theoretical framework of this qualitative research is based on grounded theory and ethnography. A purposive sampling strategy was followed in which eligible attending physicians with the highest potential for providing relevant and rich information were invited to a focus group interview session about their evaluation of residents. Participants were chosen from the four major emergency medicine residency training sites in Riyadh. Most participants were heavily involved in residents' mentorship and evaluations, and they were required to have had at least 1 year of experience as a mentor to be eligible for inclusion. Participants were assured that all obtained data would remain anonymous and would not be linked to individuals.

Scheduling conflicts made it extremely difficult to schedule interview times suitable to all participants; however, we believe that we managed to include a rich subset with 19 participants. Most interviews were conducted in a conference room, and included three to five participants. We did not allow residents to attend the interview in order to encourage participants to speak freely.

Data collection

The study was conducted from August to October 2012. The interview process followed a standard format in terms of prompting questions (Index 1). Participants were asked to identify positive and negative characteristics of residents and list them in order of the weight each carries in the overall evaluation. The same interviewer conducted and audiotaped all interviews, and another facilitator took field notes. The interviews were conducted in English unless participants wanted to express their thoughts in Arabic; however, this rarely happened. Interviews lasted 45 to 60 minutes, depending on the number of participants. This length was enough to reach data saturation in most interviews. After each focus group session, the participants were asked to complete a questionnaire composed of CanMEDS competencies as to whether the participant rarely or routinely assessed specific resident characteristics.

Data analysis

Two coders listened to the interviews and performed the coding process independently. In addition, the facilitator who took field notes coded his notes. Discrepancies were resolved by consensus agreement. The coding framework was based mainly on CANMEDS competencies. After combining the three coding results in a single document, it was revised by another coauthor, which ensured correct categorization of characteristics.

The number of times each general theme and specific qualifier occurred in the transcript was recorded. This number was used as an estimate of the popularity of the characteristic among participants. Code strategies and qualifiers were arranged in descending frequency and tabulated based on the CANMED framework. Any new variable not belonging to the CANMEDS framework was evaluated through a consensus of three emergency medicine attending physicians with significant experience as program directors; two of them hada master's degree in medical education as well. The aim of the consensus was to assess the appropriateness of the characteristic as an evaluation parameter.

Results

A total of six focus group sessions with 19 participants were held. The focus group sessions yielded a total of 145 characteristics. The average experience of the participants as instructors for emergency medicine residents was 4 years. Fifteen participants had fewer than 5 years of experience, while two had more than 10 years. Participants came from all four main institutes involved in residency training in Riyadh.

The competencies that participants mentioned as having the highest positive or negative impact on the evaluation are shown in Figure 1 in their distribution across the CANMEDs framework. Our focus group results have shown that evaluators base their evaluations mainly on medical expertise, followed by professionalism. Professionalism typically was evaluated in a negative context (i.e., lack of professionalism). Collaboration was third out of the seven competencies, followed by communication and the scholarly competencies. Health advocacy and managerial competencies had the least impact on the evaluation in our sample (Figure 1).
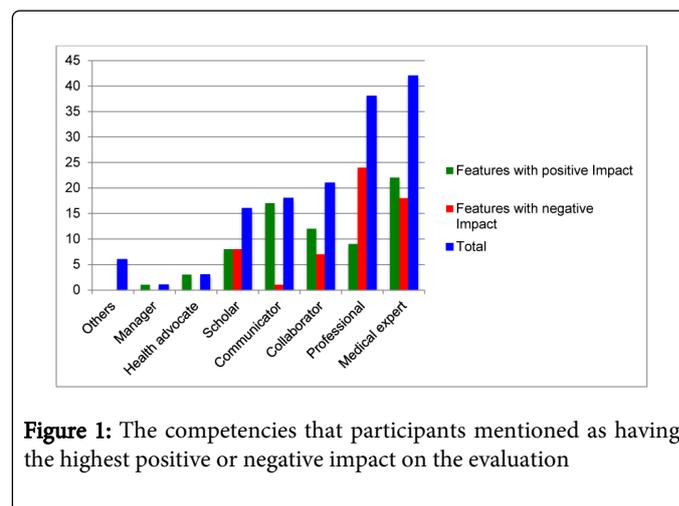

Figure 1: The competencies that participants mentioned as having the highest positive or negative impact on the evaluation

A total of 19 questionnaires were completed. Medical expert competencies had the highest percentage of "routinely assessed" items, while health advocacy had the highest percentage of "rarely assessed" items (Table 1).

CanMEDS competencies	Routinely assessed %	Rarely assessed %
Medical expert		
Function effectively as consultants, integrating all CanMEDS roles to provide optimal, ethical, and patient-centered medical care	74	26
Establish and maintain clinical knowledge, skills, and attitudes appropriate to their practice	95	5
Perform a complete and appropriate assessment of a patient	100	0
Use preventive and therapeutic interventions effectively	68	32
Demonstrate proficient and appropriate use of procedural skills, both diagnostic and therapeutic	100	0
Seek appropriate consultation from other health professionals, recognizing the limits of their expertise	100	0

Communicator		
Develop rapport, trust, and ethical therapeutic relationships with patients and families	63	37
Accurately elicit and synthesize relevant information and perspectives of patients and families, colleagues, and other professionals	79	21
Accurately convey relevant information and explanations to patients and families, colleagues, and other professionals	79	21
Develop a common understanding on issues, problems, and plans with patients, families, and other professionals to develop a shared plan of care	47	53
Convey effective oral and written information about a medical encounter	89	11
Collaborator		
Participate effectively and appropriately in an interprofessional healthcare team	68	32
Effectively work with other health professionals to prevent, negotiate, and resolve inter professional conflict	74	26
Manager		
Participate in activities that contribute to the effectiveness of their healthcare organizations and systems	32	68
Manage their practice and career effectively	26	74
Allocate finite healthcare resources appropriately	58	42
Serve in administration and leadership roles, as appropriate	74	26
Health advocate		
Respond to individual patient health needs and issues as part of patient care	95	5
Respond to the health needs of the communities that they serve	21	79
Identify the determinants of health for the populations that they serve	11	89
Promote the health of individual patients, communities, and populations	32	68
Scholar		
Maintain and enhance professional activities through ongoing learning	79	21
Critically evaluate medical information and its sources and apply this appropriately to practice decisions	79	21
Facilitate the learning of patients, families, students, residents, other health professionals, the public, and others, as appropriate	63	37
Contribute to the development, dissemination, and translation of new knowledge and practices	42	58
Professionalism		
Demonstrate a commitment to their patients, profession, and society through ethical practice	100	0
Demonstrate a commitment to their patients, profession, and society through participation in profession-led regulation	37	63
Demonstrate a commitment to physician health and sustainable practice	42	58

Table 1: Questionnaire and percentage answers

A total of 5 characteristics were identified as not belonging to the CANMEDs framework and needed to be reviewed by our medical education experts (MA, AA, MS). The consensus opinion was that four of these were considered to be inappropriate and should not be used as evaluation characteristics (table 2). Table 3 shows sample quotes of commonly mentioned positive and negative resident features

Feature	Decision on appropriateness
Impact of my evaluation on the trainee's self-esteem or future	Inappropriate Special counseling should be provided to the resident, if needed

Fun to work with	Inappropriate
Lack of personal hygiene (clothing, body odor)	Appropriate Professionalism-related
Flirting with the opposite sex while on duty	Inappropriate
I tend to give popular or showy residents worse evaluations	Inappropriate

Table 2: Features not fitting into the CanMEDS framework and the expert's consensus opinion regarding their appropriateness as an evaluation parameter

Positive	Negative
Ability to recognize acute illness	Unreliable, dishonest
Good communication with patients, families and colleagues	Overconfident
Team leader	Lack of interest in learning

Table 3: Example quotes of commonly mentioned positive and negative resident features

Discussion

Competency-based assessment is increasingly common in medical education. Different frameworks have been adopted in different countries, including the Accreditation Council for Graduate Medical Education framework in the United States, Tomorrow's Doctor in the United Kingdom, and CanMEDS in Canada. The latter recently has been adopted in multiple countries, including Saudi Arabia. The Saudi Commission for Health Specialties, which regulates residency training across the country, recently began requiring training programs to base their training and assessments on the CanMEDs framework.

Emergency medicine attending physicians are expected to assess and evaluate their trainees, even though most of them have not had adequate training in assessment and evaluation [10]. The Saudi Commission for Health Specialties is in the process of training the trainers on the CanMEDs framework in collaboration with the Royal College of Physicians and Surgeon in Canada. However, training most program directors and others involved in training will require significant time and effort. Meanwhile, faculty development sessions have been shown to be an effective tool in improving the quality of their evaluation reports [1]. In addition, feedback has been shown to positively impact the quality of evaluations [2]. The results of the focus groups and the written survey were consistent, especially in the order of importance of the seven competencies.

Our results show that medical expert competencies are the main focus of evaluators. This is consistent with previous literature; however, the importance given to other competencies was remarkably different in our study and previous literature [11]. Interestingly, our results demonstrate that evaluators expect their residents to be professional, which is why a lack of professionalism has a strong negative impact, while the impact of being professional, as expected, and is not as strong. It is worth noting that most of the "rarely assessed" items in the questionnaire had to do with performance at the organizational, community, or population level rather than at an individual patient care level.

Limitations

One of the main limitations of the study was the small sample size.Scheduling conflicts and the relatively small number of emergency medicine physicians involved in training and evaluation in the city made hard to increase the sample size. Another limitation is the limited experience of participants (average, 4 years); emergency medicine is a young specialty in Saudi Arabia, and junior attending physicians outnumber senior attending physicians. Lastly, the use of survey methodology in the design represents an added weakness as well.

Conclusions

Appropriate evaluation of emergency medicine residents remains a challenge. Faculty development workshops should be offered to evaluators to improve the quality of their evaluation reports. Emergency medicine educators should create a systematic method of assessing and evaluating competencies related to the resident's performance at the population and healthcare system level rather than only at the individual patient care level.

Authors' contributions

Abdulmohsen Alsaawi: Facilitator, field notes, 3rd coder, manuscript writing, submission, corresponding author.

Mohammed Alsultan: Interviewer, manuscript revision, consensus expert member.

Majid Alsalamah: Methodology expert assured coding and categorization accuracy, manuscript revision, and consensus expert member.

Abdullah Alanazi: Manuscript revision, consensus expert member.

Mishal Almarshady: 1st coder, organization of focus group sessions.

Abdullah Alzabin: 2nd coder, organization of focus group sessions.

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