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Emotional Intelligence and Graduate Medical Education

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DIRECTORS OF RESIDENCY TRAINING PROGRAMS ARE now familiar with the expectations for learning and assessment within 6 core competencies, as required by the Accreditation Council for Graduate Medical Education.¹ Although the field of medical education has made great strides in developing innovative curricula within the competency framework, a lack of operational definitions continues to impede progress. We propose that the scientific concept of emotional intelligence (EI)² has the potential to deepen understanding of the competency: *interpersonal and communication skills*. Although EI may relate to the other competencies as well, notably *professionalism*, this Commentary focuses on describing how EI contributes to *interpersonal and communication skills*. The theory of EI may help critically define the specific abilities and complex processes that underlie this competency and, in turn, lead to a better understanding of how to successfully integrate the development of these skills into graduate medical training.

What Is EI?

In the past decade EI has become a popular subject, mostly due to a book by Goleman.³ However, Goleman's broad conception of EI differs sharply from scientific theory concerning EI. According to early theorists, EI is a set of 4 distinct yet related abilities: (1) perceiving emotions; (2) using emotions; (3) understanding emotions; and, (4) managing emotions.² These 4 abilities, or branches, are thought to encompass skills a person can develop through practice. The first branch, *perceiving emotions*, refers to the ability to accurately perceive and identify emotions both in oneself and in others; for example, it includes the ability to accurately read facial expressions. The second branch, *using emotions*, is the ability to harness emotions to facilitate thinking, for example, anticipating another person's emotional reaction and using that knowledge to modify one's own behavior. The third branch, *understanding emotions*, refers to the ability to use language to analyze emo-

tion, such as understanding the relationship between sadness and loss. The fourth branch, *managing emotions*, refers to the conscious regulation of emotions both in oneself and in others. The ability model assumes that the 4 branches are distinct from personality traits and environmental factors. The ability model differs from mixed models that include the influences of personality, environment, or both on the development of EI.⁴

EI and Understanding Competence

Using this theoretical framework, it is possible to speculate that EI relates directly to the competency *interpersonal and communication skills*. According to the Accreditation Council for Graduate Medical Education, this competency consists of 2 distinct skill sets: (1) *interpersonal skills* defined broadly as "inherently relation and process oriented, such as relieving anxiety, [and] establishing trusting relationships"; and (2) *communication skills*, more narrowly defined as the ability to perform specific tasks such as obtaining a history, obtaining informed consent, and talking to patients about diagnosis and treatment.¹ On the surface, these skills seem reflective of immutable personality traits such as being a "nice person," or "easy to talk to." Alternatively, they may seem to encompass "common sense," behaviors such as learning to make eye contact or speaking in a calm manner. However, within the framework of EI, the ability to effectively learn and demonstrate these skills rests on the underlying and often unarticulated assumption that people can accurately read and manage their own and others' emotions.

The current medical education literature has focused primarily on communication skills, most likely because they are easier to define and observe than interpersonal skills. The value of communication skills is supported by continuing evidence that physician-patient communication affects a variety of important factors associated with positive health outcomes. For example, physicians with better communi-

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ation skills are less likely to receive patient complaints⁵ and more likely to play a major role in reducing medical errors.⁶ These and other findings have supported the inclusion of communication skills training programs in medical education.

Some programs have recognized how emotions, in the form of empathy, contribute to communication skills; these programs incorporate empathetic skills in their curricula on the assumption that communication skills depend on the ability to empathize with others.⁷ However, focusing on a single ability—such as empathy—may not lead to desired outcomes. Empathy is part of the first branch of EI and effective patient-physician interaction requires a broader set of underlying abilities. For example, in a study in which medical students wrote about their emotions in response to a hypothetical traumatic medical event, students whose writing reflected more emotional withdrawal and disengagement from the situation were later rated by standardized patients as having poorer specific and overall communication skills.⁸ The study suggests that successful communication requires a complex process involving perceiving emotions, managing one's own reactions, and using emotion to facilitate future performance.

Furthermore, successful interactions entail much more than the knowledge and application of good communication skills—they also encompass interpersonal skills that allow people to build good relationships with others. Indeed, the greatest added value of EI may lie in developing a richer understanding of the interpersonal dimension of the competency *interpersonal and communication skills*. A better understanding of this dimension will help predict with greater confidence how this competency contributes to patient and clinician outcomes.

The challenge in medical education is to understand and identify those psychological factors that help promote or restrict the development of effective skills, thereby allowing for the development of more effective curricula. The 4 EI abilities are building blocks that may allow students and residents to develop competence. Therefore, the EI framework has the potential to deepen understanding about the set of factors that are related to the acquisition of effective interpersonal and communication skills—skills that rest on the ability to perceive, use, understand, and manage emotions in self and others.

Measuring and Using EI

The first step in applying an EI framework is successfully measuring EI in individuals. Measures fall into 2 categories: self-report and ability measures. Two self-report tests that have been used widely outside of health care are the Bar-On Emotional Quotient Inventory (EQi) and the Self-Report Emotional Intelligence Test (SREIT). A study using the EQi found that physician scores on the “happiness” subscale significantly correlated with reports of patient satisfaction.⁹ In a study involving dental school undergradu-

ates, the SREIT predicted more adaptive ways of coping with the stress of school.¹⁰ Although self-report measures of EI are commonly used, research demonstrates that self-assessments of EI most likely reflect perceptions of emotional abilities rather than measures of the abilities themselves.¹¹

The use of ability-based tests of EI may help counteract this problem. The Mayer-Salovey-Caruso Emotional Intelligence Test (MSCEIT)¹² is an ability-based measure that generates 5 scores per individual: 1 for each branch plus an overall EI score. Unlike traditional self-report tests, the MSCEIT asks participants to engage in the types of tasks that are thought to use the 4 abilities of EI. For example, to assess the first branch, perceiving emotions, respondents are shown pictures of faces displaying varying degrees of emotion and are asked to rate the level of feeling. Similar to other tests of EI, studies using the MSCEIT in health care settings are few. However, a study involving nurses showed positive correlations between clinical performance level and EI scores. Staff nurses on the professional clinical track (ie, those pursuing advanced training and skills) demonstrated higher EI scores than staff nurses not on the clinical track.¹³

The overlap with personality is a crucial point in both EI measurement and the understanding of how EI as a construct can be used in medical education. Self-report measures of EI overlap significantly with common personality measures, whereas the MSCEIT has demonstrated less overlap with personality.¹¹ If EI is indeed an intelligence, measures of EI need to capture something distinct from personality. This issue is also important given that interpersonal and communication skills are often seen as reflective of personality traits; the added value of EI may lie in its ability to parse out personality factors from more changeable aspects of a person's behavior. Currently, many graduate medical education programs assess interpersonal and communication skills with multisource evaluations. Although these types of evaluations are a good alternative to self-report, they may rely too heavily on superficial impressions of an individual's personality. Advancement in the measurement of EI as an ability has the potential to provide a more objective and, therefore, effective assessment of these skills.

The topic of EI training is in need of further attention. Few controlled studies have tested the effectiveness of EI training programs, and even fewer studies have used an ability-based measure (as opposed to self-report). An exploratory study using employees at a multisite dental practice found that a day-long intervention successfully increased scores on the MSCEIT.¹⁴ Furthermore, a systematic review found that emotion skills training in medical schools consistently improved empathy and “other directed” emotional skills.¹⁵ Therefore, it seems that designing appropriate interventions may increase a person's emotional abilities. Although EI has not yet been systematically tested within medical education, some evi-

dence suggests that there is a potential benefit of teaching EI to physicians in training.

Conclusions

Many educators may disagree about the importance of EI in medical training. Clearly, the concept of EI needs further development; popular conceptions have added confusion to the definition and measurement of this complex concept. However, EI should not be dismissed simply because of this complexity. Using a cautious and scientific approach, research on EI has the potential to enrich the understanding of how to train excellent physicians. Future studies could link students' EI scores with evaluations from colleagues and staff. Emotional intelligence scores may also be used to develop targeted interventions; for example, if students exhibit a deficit in the ability to manage others' emotions, a specialized intervention could be designed to improve that ability. Given the importance of interpersonal and communication skills in a variety of outcomes, understanding the skills underlying EI competencies is increasingly important. Emotional intelligence is a concept worth further exploration in medical education and may be one of several important theories that help move the culture of medical education ahead by creating a better learning, working, and caring environment.

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