Core EPAs in Basic Science Courses: An Important Role for Pathology

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ABSTRACT

Many medical schools have begun to utilize some of the core Entrustable Professional Activities (EPAs) for residency, developed by the AAMC, as a framework for their medical school competencies or outcomes.1 The EPAs were developed for a clinical context and most are being evaluated in the clinical years of medical school.2 However, the medical knowledge essential for many of the core EPAs is learned in the basic science courses.

We have developed an online system for providing formative feedback to medical students during the second year pathology course for two of the core EPAs: EPA 2 (develop a prioritized differential diagnosis and select a working diagnosis) and EPA 3 (recommend and interpret common diagnostic and screening tests).1 The selected EPAs reinforce that pathologists add value and can directly play a role in preparing students for clinical encounters.

Our online system charts levels of achievement and also allows students to do self-evaluations to compare to the faculty evaluations. In an initial pilot, students have been excited to understand how the case based pathology teaching sessions allow them to become better prepared for their clinical rotations and to realize the value of informed selection of laboratory tests.

OBJECTIVES

The objective of this project was to create an online module to allow students to perform self-assessments and to receive formative assessments and meaningful feedback from faculty facilitators by assessing their competencies of two core EPAs as part of a basic science course during the preclinical years of medical school. Since the core EPA guidelines do not define what the course facilitator is expected to evaluate, we used the EPAs as tools to achieve our outcomes.

METHODS

Second year medical students (n=159) who attended the University of Medical School during the 2017-2018 academic year and the faculty facilitators from the Department of Laboratory Medicine and Pathology participated in this pilot project which was designed to provide narrative feedback and self-assessment to medical students as they progressed through the pathology laboratories of the second year systems-based curriculum. Online platforms using Qualtrics, and then Course Eval, were used to score levels of achievement of EPAs 2, and 3. After the Qualtrics platform failed to allow students to view the faculty assessment and feedback, the Course Eval platform was implemented. An online link was emailed to each student and their respective faculty facilitator and the Qualtrics option was used. Students were defined (Image 1). Students would perform self-assessment, and the faculty facilitators would assess each student in their laboratory group(s). Both students and the faculty members had the option of leaving narrative feedback in the comment sections. We compiled assessments and compared scores rendered by students and faculty as well as reviewed the narrative feedback in the comment sections in an attempt to gain insight to student and faculty engagement.

RESULTS

The first round of the pilot study used the Qualtrics online platform. Unfortunately, students were not able to see the faculty evaluations or narrative feedback. Therefore this platform was abandoned and the Course Eval platform was implemented.

In the second round of the pilot study 140 students, out of 159, participated by providing self-assessments for both EPA 2 and 3, for a student participatory rate of 88%. One student did not receive faculty feedback. Of the 139 participating students who did receive faculty feedback for EPA 2, 99 (71%) scored themselves the same, or were in consensus, with their facilitators. Thirteen (9%) scored themselves higher, and 27 (19%) scored themselves lower than their facilitators. For EPA 3, of the 139 students 103 (74%) scored themselves in consensus with their facilitators. Nineteen (14%) scored themselves higher, and 17 (12%) scored themselves lower than their respective facilitators. Nine (6%) students scored themselves higher, and 13 (9%) scored themselves lower for both EPA 2 and 3 compared to the faculty facilitator.

The narrative feedback provided by the faculty advisors mostly focused on positive reinforcement and encouragement to participate more in the small group setting (Image 2). Student narrative feedback was mostly reflective on need to participate more or showed insight of how to continue to work towards the higher levels of achievement for EPA 2 and 3 (Image 3). Unfortunately, only a small portion of the faculty facilitators actually used the comment section and a portion that did, left nonspecific or “canned” comments. Only once did a student leave a negative comment complaining about the added work of the online survey.

CONCLUSIONS

The results support the feasibility and use of an online platform for assessment and narrative feedback in evaluating two of the core EPAs in a basic science course during the pre-clinical years of medical school. It also fulfills the LCME’s guidelines for formative assessment and feedback.1,2

Due to the fact that this was a pilot study which had to be redirected after the first online platform failed to meet the desired objectives, only a limited amount of assessments were performed. It is our intention to continue the project by collecting more assessments with the goal of being able to show that higher levels of achievements of the EPAs can be attained over time. As Lurie et al. concluded in their review of competency based evaluation of graduate medical education, for an assessment tool to be useful, it must be understandable to both the learners and supervisors.3 Furthermore, Green and Holmboe emphasized consistent use or lack of training of any assessment tool can limit the usefulness or meaning of the evaluation.4 Since only a few faculty members actually left meaningful and individualized feedback to students, we feel that additional faculty training will also serve to improve the quality of the project. We also hope that this platform may have the potential to go beyond its role as an assessment tool and allow faculty facilitators to intervene and provide guidance for students overestimating or underestimating their performance as well as a convenient method for group participation. In this way, the online platform may have a high impact on an individual student’s learning experience.

REFERENCES


