

App offers real-time assessment of trainees' professional behavior

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For physicians and trainees, exhibiting professional behavior during patient interactions is a critical component to achieving positive health outcomes. But what exactly constitutes professional behavior?

In medical education, faculty members are finding that professionalism is difficult to measure or even define. A new tool at the University of Central Florida (UCF) College of Medicine aims to change that.

Using a mobile, web-based platform known as PROMOBES (Professional Mobile Monitoring of Behaviors), UCF instructors can observe exemplary or substandard professional behaviors as they happen, document them in the platform and offer feedback almost immediately. According to Juan C. Cendán, MD, this approach is a stark departure from the methodology UCF had previously used.

“Before [the app], a class would end and the teacher would have something like six weeks to put in a grade for a student,” said Dr. Cendán, chair of medical education at UCF’s College of Medicine. “In that six-week period, you might push that stuff to the back of your desk and by the time you got to it, you couldn’t remember much. So the detail that was being captured was quite distant from the events. What we are trying to do [with PROMOBES] is capture it in near real time, so it can have the most richness and give the best opportunity for giving formative feedback.”

Shared understanding of professionalism

PROMOBES was borne out of what faculty members at UCF identified as a lack of a shared framework—from definitions to evaluation—about the key components of professionalism. The definitions needed to be broad and digestible. Dr. Cendán was part of a task force charged with revamping the way professionalism was taught and measured.

“We didn’t have to invent something new, but we had to agree on the framework that was palatable to everyone from the anatomy teacher to the surgeon in the ward,” he said. “Eventually we went through a process where we did that.”

The result of that process was a set of six domains of professionalism education, many of which highlighted the need for assessment and feedback on professionalism as methods to drive learning.

“As that discussion was moving along, I thought it would be nice to capture all that in an app,” Cendán said. “The framework is a bit too long to memorize, and it’s something that you want to capture as it occurred as opposed to thinking about it once the student has finished your course.”

Buoyed by a \$50,000 grant from the Macy Foundation, which the university matched, the technology became a reality in 2016.

How it works

The PROMOBES software is used to augment professionalism education that students are offered via lectures and observe during clinical training. In other words, it is more of an instrument of documentation than education.

If a faculty member observes a favorable display of professionalism by a student, he or she logs into the platform and awards that trainee a gold Pegasus (UCF’s mascot). Conversely, when poor behavior is observed faculty members document the instance, and the student receives a yellow card (a warning) or red card, which calls for immediate action.

“Once you put something into the app, there is a next step,” Dr. Cendán said. “You have to communicate with a student, there has to be an exchange. It forces a bit more feedback.”

PROMOBES may look like an app (it has an icon on a user’s phone) and function like one, but technically it is not a mobile application. The key difference between a web-based or mobile-based program is where the data live. For student-and patient-privacy reasons, data logged in PROMOBES cannot live on a mobile device and is stored online.

Implementing software on wide scale

In 2016, PROMOBES was piloted by students and instructors in two UCF programs—for third-year medical students working on a pediatrics clerkship and internal medicine residents. Research on the pilot program indicated that “the explicit connection to the professionalism framework was powerful.”

Additionally, that research found that in the vast majority of instances (94.7 percent) the reports in PROMOBES were for commendation of positive behaviors.

“We were somewhat bracing ourselves for the tool becoming a punitive instrument,” Dr. Cendán said. “What we’re seeing as we’ve been is a lot of good comments, the occasional yellow card that prompts a discussion with a faculty member and we haven’t seen any red cards yet.”

Following the successful pilot, PROMOBES is being used by every medical student and faculty member at the undergraduate level. (Dr. Cendán expects UCF’s residency programs to implement the tool in the near future, as well.) UCF has also heard from other institutions interested in experimenting with the software.

Dr. Cendán believes the program can be an asset in solving an issue across medical education.

“You go from being very generic [in assessment] to very specific,” he said. “The more specific you are the more directive you can be in giving feedback and looking for change and improvement.”