

For the Office-based Teacher of Family Medicine

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Feature Editor

Editor's Note: In this month's column, Hershey Bell, MD, and Stanley Kozakowski, MD, remind office-based teachers of their important role in assessing how well learners achieve different competencies. They also recommend a "gap analysis" approach for helping learners self-assess their level of competency and plan how they will improve. Dr Bell is with the Lake Erie College of Osteopathic Medicine in Erie, Pa, and Dr Kozakowski is with the Hunterdon Medical Center Family Medicine Residency in Flemington, NJ.

I welcome your comments about this feature, which is also published on the STFM Web site at www.stfm.org. I also encourage all predoctoral directors to make copies of this feature and distribute it to their preceptors (with the appropriate *Family Medicine* citation). Send your submissions to williamh@bcm.tmc.edu. William Huang, MD, Baylor College of Medicine, Department of Family and Community Medicine, 3701 Kirby, Suite 600, Houston, TX 77098-3915. 713-798-6271. Fax: 713-798-7789. Submissions should be no longer than 3–4 double-spaced pages. References can be used but are not required. Count each table or figure as one page of text.

Teaching the New Competencies Using the Gap Analysis Approach

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Medical education at every level has become increasingly focused on defining and ensuring that learners achieve a specific level of competency in a variety of areas. For residents, the Accreditation Council for Graduate Medical Education (ACGME) has defined general competency categories of patient care, medical knowledge, practice-based learning and improvement, interpersonal and communication skills, professionalism, and systems-based practice. For each general competency category, the ACGME has defined specific examples of competencies that resi-

dents should achieve during their residency.¹ For medical students, many schools are defining competencies that students should achieve by the end of medical school and at the end of different courses. Examples of competencies that students should achieve at the end of the preclinical curriculum and at the end of a family medicine clerkship have been published.² Research into the roots of medical error, coupled with a renewed focus on patient centeredness, has demonstrated that medical education must attend not only to the knowledge that physicians accumulate but to the entire spectrum of behaviors required of the high-quality practitioner.³

At the completion of a rotation, faculty must assess how well learners achieve a number of competencies. Using a clinical evaluation form used by the Lake Erie College of Osteopathic Medicine as an ex-

ample, faculty must answer questions such as the following:

- Did this student/resident demonstrate that he/she was current with the medical knowledge in your field?
- Did this student/resident demonstrate that he/she was able to apply his/her medical knowledge to the care of patients?
- Did this student/resident communicate and interact with others in an effective way?
- Did this student/resident demonstrate values and behaviors consistent with medical professionalism?
- Did this student/resident demonstrate an understanding of the complexities of the health care system through his/her decisions and actions?
- Did this student/resident demonstrate that he/she was able to assess his/her practice pattern,

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identify learning issues, and apply his/her newfound knowledge?

- (For osteopathic students and residents) Did this student/resident demonstrate a philosophy of care and practice behaviors consistent with osteopathic philosophy and osteopathic manipulative medicine?

Ideally, in the clinical setting, learners should seek and/or receive feedback that helps them self-evaluate and determine their developmental issues relative to each of the questions listed above. "Gap analysis" can be used by faculty to facilitate effective self-evaluation. Gap analysis is a method borrowed from the world of strategic planning.⁴ It contains the following steps:

- Articulate a desired future state.
- Describe the current state.
- Examine internal and external issues that must be addressed to progress from the current state to the desired future state.
- Delineate strategies and tactics that will ensure that the "gap" between current state and desired future state is narrowed.

At the Hunterdon Medical Center Family Medicine Residency Program in Flemington, NJ, gap analysis has been used to assist students and residents in their attainment of competency. In meetings with faculty, learners are asked to assess, on a scale of 0–100, where they believe they stand relative to performing one or more of the competencies. The faculty member then asks the learner to identify a physician, by name, who he/she believes is a "100" relative to the performance of that competency. Next, the faculty member encourages the student/resident to discuss and identify the specific behaviors

that the "gold-standard" physician demonstrates to achieve this competency. Finally, the faculty member asks the learner to describe his/her own set of behaviors relative to the gold-standard physician and identify specific learning issues, or skill development issues, that are necessary for the learner to work on to lessen the gap between his/her own performance and the performance of the gold-standard physician.

Illustrative Example

SR, a first-year resident, during her first performance review, said that she was lacking the confidence that she needed to be "convincing" with patients. Using the "patient care" and "interpersonal and communications skills" competencies, she was able to see that greater confidence in these competencies would improve her effectiveness in her doctor-patient relationships.

Using the gap analysis method, the faculty member drew a horizontal line with the two end points labeled "0" and "100," representing "zero skill" and "mastery," respectively.

SR was then invited to rate herself on the continuum and chose a rating of 70. The faculty member then asked her to think of a physician who represented her gold standard with respect to these competencies. She placed him on the continuum nearly at the 100 mark, adding that "No one is perfect."

SR was asked to describe specific behaviors that this physician demonstrated, and a list was created. SR acknowledged that she wanted to demonstrate behaviors more like this particular attending in terms of confidence. In the final stage in the gap analysis, SR developed an action plan for closing the identified

gap. She discussed actions that she could take immediately that would help her become more and appear more confident relative to these competencies.

After approximately 2 weeks, she came to the revelation that she no longer wished to emulate her chosen gold-standard physician. "He is an extrovert, and I'm an introvert," she explained. She added that the process "got me thinking," and she realized that there was another attending, equally confident and effective, whose personality was more similar to hers and was more in keeping with her "ideal" role model. She had already begun to think of ways that she could emulate this second attending physician's behaviors

In summary, gap analysis can be a useful tool for helping students and residents identify critical learning issues that can facilitate their journey toward competency and beyond. To date, gap analysis has not undergone a thorough evaluation of effectiveness. The authors look forward to that future evaluation.

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