

For the Office-based Teacher of Family Medicine

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Feature Editor

Editor's Note: In this month's column, Christine A. Taylor, PhD, and Martin S. Lipsky, MD, examine teaching techniques designed to help your students become active learners

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 Paul Paulman, MD, University of Nebraska Medical Center, Department of Family Medicine, 983075 Nebraska Medical Center, Omaha, NE 68198-3075. 402-559-6818. Fax: 402-559-6501. ppaulman@unmc.edu. 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.

How to "Activate" Medical Students in the Office Teaching Setting: Giving Students Permission to Be Active Learners

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We can all agree that medical students must learn to be self-directed, lifelong learners. It would be impossible to teach a medical student everything he or she needs to know about family medicine in a 6-week family medicine rotation. Even if you could, much of what you would teach would be out of date by the time the student reached residency training. Encouraging self-direction is best facilitated through collaborative learning methods.¹ In fact, the

basic assumptions concerning adults as learners suggest that they are best motivated to learn when they are active participants in their learning.² The teaching methods that support student self-direction differ significantly from the authoritarian methods that were prevalent in the past and are still used today.

Faculty development programs across the country have been designed to assist clinical faculty in learning new, more student-active ways to facilitate learning.^{3,4} Full-time clinical faculty as well as community faculty are asked to attend training sessions on these new methods. However, for many of these new strategies to be successful, students need to accept their role as active learners. For many students, their 15 years of formal

schooling may not have prepared them to "initiate" in the learning setting. These passive habits, combined with their natural fear of the unknown clinical environment, result in a student population that appears reluctant to engage in discourse, much less help direct the course of their learning.

As medical education continues to move to the ambulatory setting, the preparation of our students becomes a more important issue. In fact, by preparing our students to take a more active role, we can reduce the number of faculty development programs needed for our time-challenged community faculty preceptors and at the same time increase the probability that both the student and community preceptor will have a rewarding experience.

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Program

The Students Taking an Active Role (STAR) Learning Course, developed at the Medical College of Ohio, is based on an earlier theoretical paper⁵ and was designed to optimize the student-teacher encounter by encouraging students to share responsibility for their education and training. Five key areas within the clinical learning environment were targeted: (1) orientation initiatives, (2) learning during precepting, (3) eliciting feedback, (4) generalizing learning, and (5) promoting reflection. In this paper, we present guidelines for developing a brief workshop that family medicine faculty can use as part of a clerkship orientation to prepare students for their community-based ambulatory experiences.

Orientation Initiatives

Many educators believe that the early establishment of an open, respectful, cooperative environment goes a long way to assure a positive learning experience for students and faculty. Ideally, preceptors should take the initiative to orient students to the setting as well as to the goals and objectives of the clerkship. However, students can facilitate this process by (1) sharing a brief description of their past clinical experience with their preceptor and choosing at least three personal goals for the clerkship and (2) asking for an orientation to the clinical setting that includes the medical record. Often, a nurse or office/floor manager can best perform this activity.

By taking the initiative, students can overcome the disadvantage of having a limited understanding of the setting in which they are going to work and can better integrate their own needs with the clerkship goals. When preceptors are given this kind of information, they are more likely to structure activities that meet students' learning needs.

Learning During Precepting

Students sometimes hesitate to venture opinions for fear of being wrong or exposing their ignorance. However, if students overcome this natural fear and offer their hypotheses, they give the preceptor insight into their thinking on the problem. Whether the student is right or wrong, the preceptor is prompted to teach and share his/her own experiences and thinking on the problem. Students can facilitate this process by collecting their thoughts before presenting and offering their hypothesis and rationale concerning the patient problem or diagnosis. By continuously practicing this process, students discipline their minds to look for important cues and prompt the preceptor to provide immediate feedback.

In responding to the students' hypotheses, the preceptor can confirm or refute the students' conclusions. In either case, students will have learned a valuable lesson.

Eliciting Feedback

Feedback from attending physicians plays a crucial role in allowing students to meet their maximum potential. It is a necessary part of effective teaching. Without feedback, students feel unnoticed and are unable to design plans for improvement. Despite the value of feedback, students report that they receive helpful feedback only rarely during their clinical experiences. Students can elicit feedback from their preceptors by (1) providing a realistic, specific self-assessment when asked a general question like, "Well, how did you think it went today?" By sharing their own focused self-assessment, students can provide an opportunity for faculty to either agree or disagree with the assessment and focus feedback on specific areas of concern and (2) requesting specific feedback time. During a busy day, with a waiting room full of patients, even the most patient preceptor will be stressed by

students requesting a performance appraisal. Set up a mutually acceptable time to discuss performance.

Generalizing Learning

One difference between novice and expert clinicians is their ability to generalize information and apply it to other problems. These rules of thumb or clinical pearls that guide patient management evolve with practice experience and are difficult to obtain by reading. An example of a general rule is, "If an older patient experiences an acute change in function, always consider the possibility of infection." One goal of this workshop is to help students identify the kinds of questions that elicit this type of information from their preceptors. An example of a generalizing question would be: "How do you decide when to order a chest X ray in patients with a cough?" This type of question will elicit a response that provides a window into your preceptor's decision-making process. Although a preceptor may offer these general rules, students can help elicit this information by learning to ask good generalizing questions. Students who ask good questions elicit general concept and rules of thumb from experienced clinicians. If students perceive that the preceptor is in a hurry during the day, and their questions remain unanswered because of time constraints, they should write them down and review them with the preceptor at the end of the day.

Promoting Reflection

Reflection is critical to learning from experience. It is an ongoing process of evaluation, interpretation, and deliberation. In a busy outpatient practice, there is little time for reflection between patient encounters. Therefore, we encourage students to develop the habit of keeping a list of questions, observations, and concerns that arise during the course of the day. Develop-

ing the habits of self-evaluation and reflection are critical elements for successful clinicians. Students can promote self-reflection by developing a system for keeping a journal of questions, observations, and conclusions about their clinical experiences and reflecting on those questions at slow periods or at the end of the day.

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