

EDUCATION

To the point: medical education reviews—providing feedback

Jessica L. Bienstock, MD, MPH; Nadine T. Katz, MD; Susan M. Cox, MD; Nancy Hueppchen, MD; Sonya Erickson, MD; Elizabeth E. Puscheck, MD, MS; for the Association of Professors of Gynecology and Obstetrics Undergraduate Medical Education Committee

Formative feedback is an essential component of effective teaching and learning. Without it, the learner flounders. Furthermore, the Liaison Committee on Medical Education requires formative feedback within the clerkship and specifies that students must have the time and ability to remediate deficiencies before completing the clerkship. Few articles in the medical literature address how to give effective feedback. However, the themes within these articles are consistent. Formative feedback should be an interactive activity between the teacher and learner. Feedback must be approached with mutual respect and should be provided in a safe environment. Quality feedback is timely, specific to the situation, constructive, based on direct observation and nonjudgmental. With effective feedback, learners (and teachers) can discover what to improve, as well as which behaviors and skills to reinforce and augment. Learners appreciate and request specific feedback. In addition, learners tend to rate teachers who provide feedback more highly than they rate teachers who do not provide feedback. This article in the "To the Point" series will focus on the components of effective feedback and provide a practical and effective approach to giving feedback.

Key words: feedback, undergraduate medical education

This article, the fifth in the ongoing "To the Point: Medical Education Reviews" series produced by the Association of Professors of Gynecology and Obstetrics Undergraduate Medical Education Committee, reviews recent literature regarding feedback in medical education and provides the components for a practical and effective approach. Medical educators are required to provide students with formative and summative feedback, yet few articles in the medical literature address the techniques needed

to give effective feedback. There is a paucity of evidence-based literature available on which to base the recommendations we have provided. Thus, the approach we put forth below is primarily based on expert opinion and the combined experience of the members of the Undergraduate Medical Education Committee. The purpose of this article is to both provide clerkship directors with the information they need to establish a robust system for giving feedback to students and to provide individual faculty members with an introduction to the skills necessary for giving effective feedback to their learners. This article will specifically address the use of feedback as a method of formative assessment.

Feedback is the constructive and objective appraisal of performance given to improve skills. It can be either formative in nature for the purpose of improving or modifying the learner's behavior or it may be a summative evaluation, in which a judgment is made about the learner's performance for the purposes of comparing learners, assigning grades, and recommending promotion. At the outset, both the learner and the teacher

should understand whether the feedback being provided is predominantly formative or summative in nature.

Ideally, formative feedback is descriptive and should be specific to the incident to which it is referring. It should be nonjudgmental, based on direct observations of the learner, and be given in private as soon as possible after the observed behavior or skill. The goal of formative feedback is to enhance the learner's ability to modify and improve behavior and performance over time to meet the course or clerkship learning objectives.^{1,2}

In contrast, summative evaluation, which is also a type of feedback, is given with the intent to document achievement, assess competence, or compare actual performance to standards, and is based on overall behavior. Summative feedback is often thought of as a form of final evaluation.

The Liaison Committee on Medical Education (LCME), the body responsible for accrediting US medical schools, establishes standards for function, structure, and performance of medical schools. The LCME requires that students be given formative feedback (ED-30 and ED-31 in the LCME's "Functions and Structure of a Medical School"). The accreditation standards state that "courses and clerkships (should) provide students with formal feedback during the experience so that they may understand and remediate their deficiencies."³ A comprehensive plan for fulfilling this requirement might include a formal midblock evaluation session with core clerkship faculty complemented by ongoing feedback sessions conducted between individual students and the faculty and residents charged with daily teaching responsibilities.

Although it is widely accepted that quality formative feedback is essential for learning, most medical students report that they receive little formative

From Johns Hopkins University, Baltimore, MD (Drs Bienstock and Hueppchen); Albert Einstein College of Medicine, Bronx, NY (Dr Katz); University of Texas Southwestern Medical Center-Dallas, Dallas, TX (Dr Cox); University of Colorado Health Sciences Center, Denver, CO (Dr Erickson); and Wayne State University, Detroit, MI (Dr Puscheck).

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feedback.⁴ Furthermore, the feedback that they receive is often not useful because of late timing and a lack of detail.⁵ Students greatly value effective feedback. Wolverton and Bosworth⁶ found that learners identify the ability to give feedback as one of the most important qualities of a good preceptor, second only to clinical competence. Indeed, adult learners welcome feedback, especially when it is based on their performance and tailored to their goals.⁷ Torre et al⁸ demonstrated that receiving quality feedback was the strongest predictor of medical students rating the teaching they received during a clerkship to be high in quality.

The Medical School Graduation Questionnaire (GQ) is a national questionnaire administered by the Association of American Medical Colleges (AAMC), which is administered annually to US graduating medical students. The AAMC GQ includes questions related to the student's medical school experiences, student support programs, and potential problems. Unfortunately, the 2005 AAMC GQ⁴ revealed that only 57.8% of medical students reported receiving sufficient feedback on their performance during the obstetrics and gynecology clerkship. This is in sharp contrast to the 80.8% of students who reported that they received sufficient feedback during their Internal Medicine clerkship. According to the AAMC GQ, the obstetrics and gynecology faculty were the least likely to provide feedback.

Certainly, some of these criticisms of faculty may be attributable to the fact that medical educators and students often differ in their perceptions of the amount of feedback given. One study by Gil et al⁵ found that faculty reported providing more feedback than students perceived receiving, leading to the question "do students recognize feedback as feedback?" Ende⁹ further suggested that teachers might inappropriately avoid giving feedback due to "concern(s) that the student may be hurt by negative feedback; that it may damage the student-teacher relationship or the teacher's popularity, or that it will result in more harm than good." Ende⁹ also faults, in part, the student, commenting that he or she "may view feedback as a statement

about his or her personal worth or potential. Students may ostensibly want information about their performance but only insofar as it confirms their self-concept." These concerns point out gross misunderstandings about the definition, purpose and techniques of providing effective feedback.

In the absence of feedback from supervising faculty, mistakes go uncorrected, good performance is not reinforced, and clinical competence may not be achieved. Learners may have a sense of being adrift and tend to generate their own feedback. Consequently, other more concretely defined forms of assessment, such as written examinations, assume an inflated importance and clinical skills become secondary to memory skills.⁹

Fortunately, formative feedback can be easily incorporated into our obstetrics and gynecology clerkships. Doing so starts with understanding the general principles that underpin the feedback process. Techniques for applying these principles are then described in subsequent sections, labeled "Setting the Stage for Providing Feedback," "The Feedback Encounter," and "Feedback on the Fly." The key points are emphasized in [Tables 1 and 2](#). When designing a time efficient feedback system, clerkship directors need to establish who will be responsible for providing formal feedback to the students and how often that formal feedback should be provided. However, the provision of informal feedback, as described in the "Feedback on the Fly" section can, and should, be expected of all faculty members who interact with learners. By mastering these feedback skills, obstetrician/gynecologists will enhance the learning that occurs during the clerkship and ultimately improve the clinical skills of the learners.

GENERAL PRINCIPLES FOR GIVING FEEDBACK

Executing a successful formative feedback session involves attention to a few key details regarding its structure, its content, and its format. Structurally, the feedback appointment should be scheduled at the mutual convenience of both the teacher and the learner, allowing

both adequate time to prepare. The meeting location should favor the student's confidentiality. Both participants should agree on the purpose of the meeting. The content of a feedback session should be limited. The feedback provided should focus on specific knowledge, attitudes, and behaviors, preferably those the evaluator has witnessed directly. Feedback should be phrased in descriptive, nonevaluative language so that the recipient understands that the purpose of the encounter is to help improve performance. The format of the session includes time for the learner to self-assess, time for the teacher's assessment, and the collaborative development of an action plan.⁸ The content of the session should be documented and appropriate follow-up scheduled to assure ongoing development and improvement. Attention to each of these components will help optimize the feedback experience.

SETTING THE STAGE FOR PROVIDING FEEDBACK—STRUCTURAL CONSIDERATIONS

Formative feedback is provided within the broader context of the clerkship. Clerkship directors and individual faculty are therefore responsible for setting and maintaining a climate that fosters constructive professional development. Within this framework, learners should expect formative feedback sessions to occur. They should understand that such sessions are intended to promote their progress and not for establishing their grades. All parties should also understand that requests for feedback sessions can be initiated by learners as well as by faculty members.

The faculty member interested in providing feedback should be motivated by and openly communicate a sincere interest in seeing the student improve his/her clinical skills. The invitation to set a feedback appointment can be phrased simply and directly. For example, the faculty member could ask the learner, "Can we take a few moments to give you some feedback?" The teacher and learner need to agree at the outset that the purpose of this appointment is to work together to-

TABLE 1
The anatomy of a feedback session

	The sequence of steps	Words or phrases to use
The set up	Request a session with the learner (Identify it as Feedback and negotiate the agenda)	“Can we take a few moments to give you some feedback?”
	Agree on a location and time (It should be relaxed and comfortable for the learner to express themselves. Safe. Not rushed.)	“Shall we meet in my office at 10 tomorrow morning?”
	Orient the learner with expectations of feedback (The teacher and the learner should effectively be allies. An attitude of concern for the learner’s development and progress. Mutual respect)	The purpose of our feedback sessions will be . . . “to work on improving your clinical skills . . .” “This will not impact your grade.”
The feedback	Encourage the learner to self assess	“How do you think the case went?” “What did you do well?” “What could you improve on?” (Give sufficient time for reflection)
	Teacher then gives feedback: Specific, first-hand observations	“When I saw .., I felt relieved, pleased, etc” Consider the “sandwich technique” (Don’t cover every learning point. Pick a few.)
The action plan	Student and teacher together develop a plan for improvement.	“What would you do differently next time?” “Let’s talk about this.” (Solicit the learner’s plan.) Offer your suggestions.
Summarize	Review identified strengths and areas for improvement as well as action and follow-up plans. Document the encounter.	“So, to summarize our meeting, to achieve your goal of . . . you will . . . and we will meet again next week to see how you are progressing.”

ward the common goal of improving the learner’s performance. Once this mutual understanding is reached, the site, time and the agenda are negotiated. Both

members of the feedback dyad should be oriented to the process, and the learner must know what to expect from the feedback encounter.

Teachers must realize that receiving feedback may make the recipient feel vulnerable. Consequently, feedback sessions should occur in safe environments.

TABLE 2
Keys to a successful feedback encounter

Do’s	Don’ts
Be constructive	Avoid judgmental statements
Be direct	Avoid hearsay
Be specific	Avoid generalizations
Be timely, as close as possible to the interaction	Avoid delaying appointments (days or weeks later)
Collect first-hand experience	Avoid second-hand or third-hand observations if possible
Focus on modifiable behaviors	Do not focus on personality
Focus on decisions and actions	Avoid projecting intentions on the student’s actions, making assumptions, and over-interpreting the situation. Do not assume the student knows the consequences of continuing specific behaviors.
Limit the amount of feedback	Avoid a laundry list
Be an ally	Do not be an adversary
Have the student summarize key components	Do not assume understanding
Set action and follow-up plans	Do not assume behavior-change will occur without follow-up
Document the encounter	Do not rely on your memory

Attention to seemingly mundane details such as the timing and location of the session go a long way to creating that safety. The timing should be selected with the convenience of both parties in mind. The duration of the meeting should also be sufficient so that neither party feels rushed.

The location of a formative feedback session should be sufficiently private so that the learner feels relaxed and comfortable enough to express him or herself openly and honestly, and without embarrassment. The evaluator should also pay attention to the configuration of furniture in the room just before the meeting. Chairs and tables should be placed to convey the message that the teacher and learner are working together, as allies, to solve problems. More specifically, chairs should be positioned so that the teacher and learner are next to each other or on the same side of the table. Mindful attention to such details will help the faculty member establish a climate of mutual trust, respect, and understanding between himself or herself and the learner. Taken collectively, these nonverbal cues indicate that this session is important to you as a faculty member and that you are making a sincere effort toward helping the learner improve his/her skills.

SETTING THE STAGE FOR PROVIDING FEEDBACK—CONTENT CONSIDERATIONS

Of course, these structural considerations simply frame the actual feedback encounter. In addition to optimizing this environment, the faculty member and the student should also take the time to independently prepare their respective content. The learner should be asked to prepare for a feedback session by assessing his/her own learning goals for the rotation both within the context of and beyond the rotation's explicit learning objectives. The learner should reflect on how he/she is progressing toward these learning goals and may identify areas requiring some assistance. The environment of trust created by the teacher will help the learner feel free to articulate his or her needs and describe perceived chal-

lenges involved in attaining his or her goals.

As feedback is intended to be interactive, the faculty member should also let the learner know that he or she will also want to receive feedback during the upcoming session. Creating this expectation serves multiple purposes. This gesture helps foster a climate of mutual trust and respect between the learner and the teacher. Presenting the session as a 2-way conversation also models positive professional behavior by conveying that everyone can use feedback. Finally, the request to receive feedback provides the student with an actual example of how they might spontaneously request feedback for themselves in the future.¹

The teacher also needs to prepare for the session. He or she should make a concerted effort to observe the student's performance and behavior firsthand. This allows the teacher to give specific examples of what went well and what could be done better. Before the meeting, the teacher should review his or her notes and select only a few items to concentrate on during a given feedback session.

THE FEEDBACK ENCOUNTER—THE BASIC FORMAT

The overarching purpose of a formative feedback session is to help the learner improve his/her clinical performance on the rotation and to assist in his/her professional growth. At the beginning of the meeting, this purpose should be explicitly reviewed and the general structure of the ensuing feedback session outlined. This structure includes the following 4 components: (1) the student's self-assessment, (2) the teacher's assessment, (3) the action plan, and (4) the summary. Each of these is described below in greater detail. Opportunities for the student to provide feedback to the faculty member can be interspersed throughout the session.¹

Student's self-assessment: Next, the learner is encouraged to self assess. Learners are less likely to be defensive if they critique themselves first. The learner should be encouraged to state his/her goals and to participate in self-

assessment regarding how he/she is progressing toward these goals and where he/she may need some assistance. Self-assessment gives the teacher insight into weaknesses the learner is aware of as well as those the learner has not yet recognized. The faculty member needs to be focused and listen without distractions or interruptions.

Simple questions such as, "What are your goals for this rotation?" and "What are you working on in your development in this clerkship/rotation now?" are adequate for opening the discussion. Once the learner has stated his or her goals, the teacher can direct the feedback encounter so that it can be most useful for the learner. Follow-up questions might include, "What do you think you did well that related to your goal?"⁹

Teacher's assessment: The student's self-assessment is followed by the teacher's observations and assessment. The teacher's assessment should include relevant and constructive comments intended to reinforce desirable behaviors, emphasize strengths, and correct errors. It is important for teachers giving feedback to remember the positive behaviors which the learner has displayed. Providing feedback that reinforces desirable behaviors and emphasizes strengths ensures that those behaviors will continue. When discussing behaviors to be improved on or problems that are identified, it is important to not only identify the behavior, but also to stress correct performance. Giving negative feedback can be challenging. Some educators prefer to mitigate the effect that negative feedback can have on a learner's self-image by being especially cognizant of the need to provide positive feedback as well. This is often referred to as the "feedback sandwich." When using the sandwich technique, the teacher begins by offering positive feedback, then refocuses the meeting to addresses problematic behaviors and how the learner can address these issues, and finally closes with a summary and positive statement from the teacher including plans for future actions on the part of the learner.

Specific examples should be cited whenever possible. The information relayed may include the learner's words, the learner's body language or specific

actions, and decisions made by the learner. Learners should feel free to ask for specific examples of what they did well or could improve if they need further clarification. Descriptive language and specificity allow learners to make real changes in behavior and thus improve their performance.

The language used when giving feedback may include a sentence such as "When you did/said. . . I was (pleased, relieved, concerned. . .), because. . ."⁸ General statements or value judgments such as "you did a good job" are less useful and should be avoided.²

Action plan: The next step in the feedback encounter involves problem solving, at which point the teacher and learner work together to develop specific strategies for improvement. Initially, the learner should be encouraged to think of what resources he/she could potentially use to fill knowledge gaps, improve skills or change behaviors. The teacher can facilitate this step by asking questions such as, "What could you do differently to achieve your goals?" or "What could be done differently (in a given clinical situation) to improve your performance?" This is also a logical time for the teacher to solicit feedback on the specific changes he or she could make to facilitate the student's learning. The faculty member needs to clarify which changes are under his or her control and which are not. Systems issues such as the time the operating room starts or the templates used to schedule clinic appointments are examples of the latter. The teacher may also suggest ways to improve the learner's performance. The resulting list of changes constitutes the student's action plan. A method for assessing progress, including follow-up appointments between the student and the teacher, is an integral part of that plan.

Session summary: The final component of the feedback encounter is a summary of the session. Optimally, the learner provides a brief statement of what he/she did well, what they will improve, how changes will be made, the timeline for making those changes, and how their progress will be assessed. Having the learner restate the main points of the meeting allows the teacher to en-

sure that the feedback was received and understood. This summary should include specific plans for future meetings between the faculty member and the student.⁸ The content of this session should be documented to prevent misunderstandings.

FEEDBACK "ON THE FLY"

Although timing and preparation are important for quality feedback, immediacy can also be highly useful. Ideally, feedback specific to a particular event or encounter should be given as close to the encounter as possible. Learners need to know that such sessions are meant to be supportive, with the goal of improving performance. Formative feedback should therefore be a regular and identifiable part of the clinical experience.

The learner should actively solicit feedback. Asking a faculty member for feedback specifically related to the learner's own goals is a powerful tool for growth. Regardless of who initiates a session, the student is expected to be an active participant in the problem solving that ensues. As with more formal, prearranged sessions, the learner should be encouraged to reflect on a given clinical encounter: what went well, what could be better, and how to improve.

One of the most problematic aspects of this ongoing feedback process is the fact that students may not recognize the information they receive as feedback. Indeed, in some teaching settings, educators carry small laminated cards in their pockets with the various components of feedback on one side and "This is feedback" printed in large letters on the other side. The teacher then briefly meets with the learner shortly after the clinical encounter, holds up the card that says "This is feedback," and begins the feedback meeting. This allows the learner to identify the meeting specifically as feedback and to view it as a formative experience (Barker, LR personal communication. Aug. 14, 2006). These cards serve to both help guide the teacher and allow the learner to recognize the formative feedback that is given in the clinical setting.

CONCLUSION

Feedback is an essential component of medical education. Unfortunately, few faculty members have received formal training in how to either give or receive feedback. Effective feedback reinforces good practice and has a motivating effect on the learner. Corrective feedback encourages learners to modify their behavior to achieve a more desirable result.¹⁰ Quality feedback depends on clear expectations for the learner, effective communication, and documentation of the encounter. By understanding the purpose and structure involved in a feedback encounter, this important part of the educational process can become more effective, efficient, and comfortable for all involved.¹¹ ■

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