

Giving Feedback

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Abstract

Background: Giving feedback is a core element of medical education, one that is gaining attention but with a thin evidence base to guide medical educators. This review provides a definition of feedback and its purpose, selectively reviews the literature regarding educators' and learners' attitudes toward feedback, and provides an algorithm for giving feedback.

Discussion: The authors discuss the parallels between giving feedback and breaking bad news, emphasizing the importance of titrating the amount of information given, attending to affect, and making a plan for next steps. Special considerations for giving feedback in palliative care are highlighted, including the effect of heightened emotion in the clinical encounter and the difficulties of giving feedback about communication skills.

Introduction

EDUCATING TRAINEES to become competent clinicians relies on a century-old apprenticeship model in which learners accumulate experience in clinical situations with the supervision and guidance of more senior clinicians. Students learn from watching faculty (role modeling) or by getting feedback on their behavior. Over the last 10 years, educators have stressed the importance of the latter method as a way to mold learners' behaviors. Unfortunately, clinician educators get little training in how to give feedback and feel poorly equipped to provide it effectively.^{1,2} Given this, it is not surprising students report dissatisfaction with both the quantity and quality of feedback and its content.³⁻⁵

The goal of this review is to define feedback and its purpose, selectively review the literature regarding teachers' and learners' attitudes toward feedback, provide an algorithm for giving feedback, and discuss the special issues associated with giving feedback in palliative care. We begin with two caveats. First, we are physician-educators and our focus will be on physician-educators providing feedback for physicians-in-training. While we expect that the much of what we describe can be applied to other health professionals-in-training, faculty may need to make modifications depending on a particular discipline's culture and standards. Second, much of what follows comes from our collective experience as learners who have received feedback and as palliative care educators who have given feedback. While there is some literature on how feedback is currently given and what students think of it, there is not good data on how best to give feedback

to adult learners. Thus, while we draw from the literature to inform our recommendations, we acknowledge that our recommendations are not evidence-based.

Feedback Overview

In his landmark article in 1983, Ende⁶ defined feedback in medical education as "an informed, nonevaluative, and objective appraisal of performance intended to improve clinical skills." He made it clear that feedback is a description of what is observed, not judgment. It is formative, designed to improve future performance, as opposed to assessment, which is summative and designed to evaluate past performance.

The role of feedback is to help a learner consistently achieve a high quality of performance. This can be done in two ways. First, feedback can address areas in which the learner is already performing at a high level. The goal of this feedback is to increase the learner's awareness of the skills and increase the frequency with which they are used. Second, if there is a gap between the student's performance and a standard, the teacher's role is to facilitate identification of the discrepancy and collaborate with the learner to make a plan to improve performance. In either case, the teacher is evaluating the learner's skills or behaviors, not the learner, in a constructive process designed to improve performance. For example, a teacher saying to a learner, "Sarah, you're a good clinician," is a judgment about the learner. A teacher saying, "Sarah, you drew out the important pieces of the patient's history and physical examination to come up with a good differential diagnosis," is feedback about the learner's performance.

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Over time, the process of receiving feedback can help students self-reflect, learn to identify their own learning needs, and design improvement plans with less direct supervision from faculty. This happens in several ways. Asking students for learning goals requires students to think about their own developmental stage and to bring effort to deliberate improvement. Students' anticipation of receiving feedback increases awareness about their behaviors and choices. Finally, the opportunity for students to reflect on their experience and to hear their self-assessment in juxtaposition with the comments of faculty can improve their ability to evaluate their own performance.

The process and format of feedback can vary. It can vary in formality (e.g., spontaneous versus scheduled), number of participants (e.g., one-on-one versus multi-source feedback), and method (e.g., spoken versus written). Feedback can also take place between interdisciplinary colleagues or from student to teacher. For the purposes of this article, we describe feedback from a teacher to a student, although many of the principles here can be applied to interactions between peers or from student to teacher.

Empirical Evidence about Feedback

While there is increasing attention in the medical literature focused on the practice of feedback, there is still relatively little empirical data. What follows is a selective review, organized by six critical questions.

What are students' attitudes toward feedback?

At first glance, student attitudes toward feedback seem positive. Learners value feedback and identify it as a mark of good teaching.^{4,7-10} In identifying qualities of a good preceptor, students ranked the ability to give feedback second only to clinical competence.⁷ Students also listed feedback as a top indicator of clerkship quality.⁸

A more careful examination, however, suggests students are ambivalent about feedback that they perceive as critical. A study of MBA students receiving feedback found that less favorable feedback was seen as less accurate and led to negative reactions (e.g., anger, discouragement), which in turn led to beliefs that the feedback was unhelpful.¹¹ In another study, surgical trainees were divided into two groups: one that received specific, constructive feedback and a second that received only general compliments. The group receiving constructive feedback showed significantly improved performance compared to the second group, but the group receiving compliments had significantly higher satisfaction scores compared to the first group. The authors conclude that student satisfaction with feedback is not an indicator of feedback effectiveness.¹²

Unsurprisingly, learners' tendency to seek feedback varies. In one study, learners who approached performance as an ongoing learning process sought feedback more readily than learners who thought of high performance as a fixed goal.¹³ Another study showed that women and higher achievers are more likely to seek feedback than men or lower achievers.¹⁴

What are faculty attitudes toward feedback?

Faculty, too, demonstrate ambivalence about giving feedback. Teachers identify it as an important skill for medical

educators but acknowledge that they do not feel equipped to give effective feedback (much like the data on giving bad news).^{2,3} In one study, faculty identified several barriers to giving feedback: lack of time, reluctance to give negative feedback, fear of retribution for negative feedback, and a belief that feedback does not change behaviors.¹⁵

In our experience a key reason for teachers' reluctance is the heightened emotion that can be evoked in these interactions. In many ways giving feedback is like breaking bad news: feedback can challenge the learner's self-concept the way bad news can alter the recipient's view of the future. Learners often respond emotionally to feedback, with defensiveness, anger, gratification, guilt, pride, sadness, and other reactions. Without the ability to deal with strong emotions, faculty may avoid giving substantive feedback about areas needing improvement and instead give only "positive" feedback, which, although pleasing to the student, does not offer opportunity for improvement.

What faculty behaviors affect the efficacy of feedback?

The literature demonstrates several ways that faculty can more effectively give feedback (Table 1). Hewson et al.¹⁶ used a combination of learner narratives and quantitative data to arrive at the following recommendations: establish an appropriate interpersonal climate, use an appropriate location, establish mutually agreed upon goals, elicit the learner's thoughts and feelings, reflect on observed behaviors, be nonjudgmental, relate feedback to specific behaviors, offer the right amount of feedback, and offer suggestions for improvement. Another study showed, unsurprisingly, that feedback was more effective when given about behavior that was directly observed and when spurred by student initiative or as a joint venture.¹⁷ Finally, Menachery et al.¹⁸ identified physician behaviors shown to increase self-reported proficiency in giving feedback: frequently attempting to detect and discuss the emotional responses of learners; handling conflict proficiently; frequently asking learners what they desire from the teaching interaction; having written or reviewed professional goals in the previous year; frequently working with learners to establish mutually agreed upon goals, objectives, and ground rules; and frequently letting learners figure things out for themselves, even if they struggle.

TABLE 1. FACULTY BEHAVIORS OR SKILLS THAT IMPROVE THE EFFICACY OF FEEDBACK

1.	Establishing an appropriate interpersonal climate
2.	Using an appropriate location
3.	Establishing mutually agreed upon goals
4.	Eliciting the learner's thoughts and feelings
5.	Reflecting on observed behaviors
6.	Being non-judgmental
7.	Relating feedback to specific behaviors
8.	Offering the right amount of feedback
9.	Offering suggestions for improvement
10.	Handling conflict proficiently
11.	Having written or reviewed professional goals in the previous year
12.	Allowing learners to figure things out for themselves, even if they struggle

Do students' and teachers' perceptions of feedback match?

There can be a significant discrepancy between student and teacher perception of the content, quality, and quantity of feedback given. One survey of surgery faculty and learners found the following: 86.2% of faculty felt feedback was always given immediately after the fact, 96.4% felt they always gave concrete suggestions for improvement, and 90.9% felt they were always successful at giving feedback. Resident responses showed agreement in only 12.5%, 13%, and 16.7% of respondents respectively.¹⁹ Other studies have shown significant discrepancies in faculty and learner perception of both the amount^{3,4} and content²⁰ of feedback given.

What impact does feedback have?

Feedback has been shown to have positive effects both in the general education literature as well as in medicine. First, feedback leads to enhanced student satisfaction. As noted above, students recognize feedback as a core component of medical education and identify it as a strong indicator of clerkship quality.⁸ Second, feedback can improve clinical performance. A 2006 systematic review of the effect of feedback on physician behavior showed that feedback led to improved clinical performance in 70% of the 41 studies that met inclusion criteria, and that feedback was shown to be particularly effective when provided by a credible source over time.²¹ Interestingly, feedback also improves the accuracy of clinician self-assessment, not just clinical performance.²² Finally, feedback leads to improved patient satisfaction. Cope²³ writes, "Residents who received feedback on performance showed a significant improvement in art of care and technical quality of care from the patient's perspective compared with those who did not receive feedback."

Can effective feedback be taught?

The evidence shows that giving feedback is a learnable skill. Efficacy in giving feedback can improve even with a brief interactive intervention.^{24,25} Stark et al.²⁶ showed that faculty self-assessed comfort and efficacy in giving feedback on learners' professionalism, often thought difficult to define and teach, improved with an educational intervention. Teachers' self-assessed improvement in giving feedback was reported even 3 years after a faculty development seminar on evaluation and feedback.⁵ Finally, there is evidence that giving feedback is more successfully learned, as with many skills, over time as an iterative process.²⁷

Elements of Effective Feedback

Given the potential complexity of giving feedback, any algorithm taken literally will prove too restrictive to allow for the full range of interactions that would most benefit learners. We believe that the best feedback is context- and learner-specific and we offer the following as suggestions to be used flexibly, not as prescriptions. We divide our approach into elements that form the context for giving effective feedback and a structure for giving it.

The context

The following recommendations focus on ensuring that the context for feedback maximizes its effectiveness.

1. *Know the standards for learners at various levels and of different disciplines.* Competencies have been defined for physicians who specialize in palliative care,²⁸ and similar standards are being developed for medical students and residents. Similarly, competencies have been defined for generalist and specialist nurses,²⁹ and for social workers.³⁰ Familiarity with these standards allows for specific, competency-based identification of ways that learners can improve their performance.
2. *Consider the setting when gauging the amount of feedback to give.* Factors to consider include the privacy of the setting and the workload of the day. Learners can integrate only so much information at once, less when under stress, and it may not be appropriate to have an in-depth feedback session in the middle of a busy clinical day or a bustling clinical ward. Kalyuga et al.³¹ writes, "Short-term storage and processing limitations of human memory have been well-known for some time . . . Only a few elements (or chunks) of information can be processed at any one time without overloading capacity and decreasing the effectiveness of processing." Given this, we recommend that even under ideal circumstances—with unlimited time and in a private setting—feedback should focus on only one or two skills or behaviors for it to be maximally effective.
3. *Consider the importance of the relationship between teacher and student.* Teachers often find it difficult to give feedback to learners with whom they do not have a relationship. In these situations teachers have little sense of the learning trajectory for students and it is particularly important to understand the learners' perceptions prior to giving feedback (see below).

On the other hand, teachers with a long-standing relationship with a student may be more hesitant to jeopardize the relationship by giving honest feedback. The literature is clear, however, that the advantages of a more developed relationship are significant. A review of a related topic, clinical supervision, of which feedback is a component, found the following: "The supervision relationship is probably the single most important factor for the effectiveness of supervision, more important than the supervisory methods used."³²

The process

Once the context for feedback has been attended to, teachers can focus on the process of giving feedback. Again, the recommendations that follow are meant to serve as a structure for giving feedback to be adapted to specific situations.

1. *Make sure feedback is expected and that the purpose is clear.* Teachers can tell learners before the observed task, "I am going to give you some feedback about this, OK? The goal is to help you get better at this. To that end, I want us to think about the following . . ." Sometimes it can be helpful to make a "contract" with students, setting ground rules at the beginning of a rotation including the expectation that feedback will be an intrinsic part of the supervisory process.³³ Learners can also better grasp the purpose of feedback if it is fundamentally integrated into the culture of a rotation,

training program, or institution by emphasizing the use of feedback in orientation materials, incorporating feedback into structured didactics and other teaching sessions, encouraging peer-to-peer feedback, and soliciting feedback from learners in clinical settings.

2. *Discuss the learning objectives beforehand.* Invite the learner to define what s/he wants to work on given the standards for a learner at that developmental stage. Feedback stemming from learner initiative is more helpful than teacher-initiated feedback. Archer writes, "Control theory argues that as individuals we try to match our behavior to goals and standards... Goal setting can support the acceptability and therefore the impact of feedback by demonstrating its relevance."³⁴

This does not mean, however, that the teacher cannot suggest a learning goal. Much like the dynamic between clinician and patient, the teacher and learner can negotiate the objectives of the interaction. For example, a teacher might say, "I noticed you had trouble calculating opiate conversions when you saw patients last week. Can we focus on this for the patients you see today?"

3. *During the encounter make (silent) observations that relate back to the learning goals.* Consider taking notes, e.g., "Patient said (x); learner replied (y)." Taking notes underscores several points: that feedback is based on observation, that it is specific, and that it deserves attention and discipline. It also enhances teacher credibility to be able to refer to specific incidents, choices, and outcomes in the encounter. If teachers chose to do this, they may wish to warn the student, e.g., "I take notes during the encounter so I can give you specific feedback"; and the patient "You may notice that I take notes during the encounter. This is so I can remember exactly what was said."
4. *Ask for learner reflection after the encounter before giving your comments.* Ask, "How did that go?" "How did it feel to you?" "What went well?" "What could have gone better?" Just as clinicians ask patients for their sense of their clinical status in order to gauge what information to convey, asking learners for self-reflection allows teachers to focus their feedback. Teachers can more finely understand the learner and take stock of the learner's understanding of his or her own performance. Information garnered from this question includes the following: How much insight does this learner have about (x)? To what degree does s/he believe it is remediable? What ideas does s/he have about where to go from here? Learners' self-reflections help shape the course of the feedback given, determine the breadth, depth, and complexity of the feedback discussion, and guide the plan for improvement moving forward.

Assessing the learner's perceptions is particularly important when there is no opportunity before the encounter to discuss the learner's goals or set the expectation that feedback will be given. Think, for example, about trying to give feedback to a student who asked for palliative care consultation about her opioid order ("1-2 Vicodin ES every 6-8 hours PRN pain"). In this situation it is important to understand the learner's perceptions ("Tell me how you have been taught to

write for opioids"). This information helps you understand what she knows and where her knowledge gaps are, which in turn allow you to provide specific information that improves her knowledge base. Moreover, given that feedback may not be expected, it is wise to negotiate the learning encounter ("Is this a good time for me to talk about the best way to write for opioids?")

5. *Convey observations that relate directly to the learning goals identified before the encounter.*
 - a. Use descriptive, nonevaluative language when conveying observations, e.g., "I noticed you decided not to explore further when he mentioned concern about losing his job," instead of, "You seemed unconcerned about his worry about losing his job."
 - b. Be specific, e.g., "When the patient said she was scared you responded that you'd be scared, too. It was a nicely empathic response and helped you build rapport for some of the difficult topics covered later." Specificity is important both when noting what the learner did well as well as when talking about areas for improvement. "You are a natural at this," is as unhelpful as, "You need to shape up." In both cases, the learner is not sure what to do.
 - c. Describe ways in which choices made by the trainee affected the interaction. It is important to frame these comments as hypotheses based on observation and informed by the teachers' experience, e.g., "I'm wondering what would have happened if you had followed up on his fear of losing his job. I think we would have learned more about what the progression of his disease means for him and maybe heard some clues about his reluctance to talk about his prognosis."
 - d. Give feedback soon after the observed task. Feedback can become diluted, vague, and less pertinent if much time elapses before giving it. The learner can also become less receptive once the heightened awareness of being observed—and accompanying desire to perform well—waned with time.
 - e. Identify at least one skill or behavior the learner did well to achieve the learning objective as well as suggestions for improvement. The former allows the learner to increase self-efficacy and become more emotionally centered in order to hear the ways s/he might improve. It also gives the learner a specific example of something s/he should continue to do instead of hearing only about behaviors or skills needing change.
6. *Attend to affect.* Learners can have strong emotional responses to both the encounter itself and to the feedback afterwards. Both require attention. As we know from clinician interactions with patients, cognitive information cannot be absorbed when the listener is in a highly emotional state.
 - a. Learners may need to debrief about emotion in the encounter before they can receive feedback. They may have had to deliver bad news or face intense suffering. It may be necessary to check in by saying "What was that like?" or "That seemed really emotional." Debriefing about the encounter is important

for several reasons. First, it allows the faculty role model the emotion handling skills that the learner should be using with patients. Second, people do not learn well when emotionally overwhelmed. Attending to learner's emotions gives them time and space to gain control over their emotions.

- b. Regardless of the emotion associated with the encounter, learners often have emotional responses to the feedback itself, including defensiveness, gratification, and anger, among others. These reactions are a natural response to being observed and evaluated, but they can diminish the student's openness to learning and can be particularly strong if the feedback is on an area that the learner did not identify as being problematic. Bing-You and Trowbridge³³ write, "Learners could view feedback as a personal attack. Since learners... prefer information that protects their self-views, these attacks on the ego can trigger negative emotional reactions... [which] in turn can block any useful feedback from reaching the learner at some cognitive level, creating an insurmountable barrier." Because of this and the reasons mentioned above in (a), emotions need to be addressed for feedback to be effective. It can be helpful to normalize the reaction, e.g., "These can be hard conversations." Faculty can also check in with the learner about the effect of the feedback: "What do you think about what I just said?" or "Does this make sense to you?"
- 7. *Develop an action plan with the student.* Helping students identify strengths and weaknesses is only part of the task; feedback is not complete without a plan for next steps. Learning occurs when people can both see what did not work AND what they need to do to improve. Faculty should help learners focus on ways to improve their performance, either by continuing to perform skills that worked well or by working on skills identified as needing improvement.

Making a plan to help learners improve performance can take different forms. First, faculty can help learners identify new approaches, e.g., highlighting the use of empathy instead of reassurance to respond to intense emotion. Second, faculty can help learners turn a cognitive model into action, e.g., providing guidance for learners who know to use empathic responses but don't know how to do it. Third, faculty can help learners overcome barriers to correct behaviors, e.g., giving direction to students who know how to use

empathic responses but get overwhelmed by their own sadness.

- 8. *Document the feedback.* Because students are often precepted by many different teachers, documentation of learning goals and feedback given is crucial. Each teacher should contribute to and have access to information about the student's learning needs in order to prevent a wasteful process of starting from scratch with each new pairing of learner and teacher. Archer writes, "Feedback must be conceptualized as a supported sequential process rather than a series of unrelated events. Only this sustained approach will maximize any effect."³⁵

Feedback in Palliative Care

There are many parallels between the communication skills used by clinicians in difficult conversations with patients and the skills used in giving feedback to learners. As noted above, giving feedback can be likened to delivering bad news since it involves the interaction of someone seen as an authority figure with someone in a more vulnerable position, and there is an exchange of potentially sensitive information. Unsurprisingly, then, our recommendations for giving feedback mirror some of the same principles as the SPIKES protocol for delivering bad news: (1) Set up the interview; (2) assess Perception; (3) obtain an Invitation to give information; (4) convey Knowledge or information; (5) address Emotion; and (6) Summarize and Strategize (Table 2).³⁶

If we think about feedback this way, three implications follow. First, as with bad news, feedback needs to be calibrated carefully, with attention paid to the setting and the capacity of the learner to integrate the information. Second, since we recognize that a significant barrier to giving feedback is worry about the learners' emotional reaction, the teacher must be willing to sit with negative emotions and recognize them as natural. Third, identifying students' learning needs is only the beginning; equally important is strategizing next steps for improvement.

Giving feedback to learners in palliative care presents additional challenges. First, the clinical encounters are more often emotionally intense than in other specialties. Learners commonly face grief, anger, hopelessness, guilt, and intense physical and emotional suffering in the course of caring for terminally ill patients and their families. Given this, checking in with learners about the emotional impact of an encounter is especially important in palliative care settings. As noted above, people cannot learn when emotionally overwhelmed,

TABLE 2. COMPARING THE SPIKES PROTOCOL AND GIVING FEEDBACK

Setting up the interview	- Know the standards for a learner at this developmental stage. - Consider the setting. - Negotiate learning objectives.
Assessing Perception	- Ask for learner reflection after the encounter.
Obtaining an Invitation	- Be sure feedback is expected and its purpose is clear.
Giving Knowledge/ Information	- Give specific, non-evaluative comments that relate directly to the learning goals identified before the encounter.
Addressing Emotions	- Attend to emotions evoked by the encounter and by the feedback given.
Strategy and Summary	- Develop an action plan addressing the learning goals and providing follow-up to ensure progress is monitored.

so students' ability to hear and integrate feedback relies on teachers attending to emotion first.

Second, feedback in palliative care often addresses communication skills. In our experience, giving feedback about communication skills is particularly challenging because both teachers and students confuse communication skills with personality. For example, a teacher might think, "Joe is not very empathic," instead of, "Joe responds to patients' emotions with facts instead of empathic statements." Complicating matters is the belief that communication skills are innate and immutable rather than a skill set that can be identified and improved. These misunderstandings result in learners interpreting feedback on communication skills as a personal attack on their character.

Third, learners often feel they already know palliative care and can be surprised by corrective feedback, leading to disbelief or anger. An oncology fellow, for example, may believe that he is proficient in pain management in oncology patients and may have trouble believing that his opioid orders are inaccurate. ("This is the way I was taught to do it and it has always worked in the past.")

The above model for giving feedback can diminish these problems. Ensuring that feedback is expected and the purpose is clear creates a safe environment where learners do not feel the comments are simply criticisms in reaction to something they did wrong. Inviting students to identify learning goals increases student self-efficacy and allows for a sense of partnership with faculty in improving students' performance. Making specific observations during the interaction allows for precise, example-driven feedback that emphasizes behaviors rather than personal qualities, as does conveying these observations in specific, nonevaluative language. Asking the learner for self-reflection before giving feedback allows for titration of the amount and complexity of the feedback given, decreasing the chances of overwhelming the learner. Attending to affect, both within the encounter itself and to the feedback given, leads learners to identify the emotion accompanying both and to feel more connected with faculty who acknowledge the emotion, allowing learners to become more open to receiving the feedback offered. Finally, developing an action plan with the student underscores the intention of improving performance instead of simply criticizing the problems identified, and shows teacher investment in the learner's success in achieving the learning goals.

Conclusions

Feedback is a core element of medical education, one that is gaining emphasis but with a thin evidence base to guide medical educators. Some of the original precepts identified by Ende over 25 years ago have been supported by study over time: feedback is most effective when there is an appropriate setting and interpersonal climate; when it includes mutually agreed-upon goals; when it is manageable in scope; when it focuses on directly observed behaviors; when it is conveyed in nonjudgmental language; and when it includes opportunities for learners to self-reflect. Our experience with communication skills in palliative care leads us to emphasize also the importance of addressing emotions raised by the clinical encounter and by the feedback given, as well as showing investment in the student's learning by making a plan for improvement. All of these recommendations reflect the central purpose of feedback: to identify and convey the strengths

and weaknesses of the learner's performance, not of the learner, in a constructive process designed to achieve ongoing elevation in the learner's practice.

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