PROVIDING EFFECTIVE FEEDBACK

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Current Issues Related to Feedback in Clinical Medical Education

High-quality feedback plays an important role in the training of effective physicians, yet there is evidence that feedback is often ineffective or even absent in clinical medical education. Faculty responses to needs analysis, including here at UMass, frequently cite feedback as a high-needs area for faculty development (Bing-You & Trowbridge, 2017; Hewson & Little, 1998). These responses suggest that faculty and residents may not be aware of what constitutes strong feedback nor how to deliver it effectively in clinical settings. In his seminal article on feedback in medical education, Ende (1983) identified several reasons for which feedback may be absent. To begin, effective feedback requires firsthand knowledge of a student or resident's performance. If a supervisor does not directly observe a trainee carrying out her or his duties, the lack of observation makes providing effective feedback nearly impossible. In addition, faculty frequently cite a fear of adverse emotional reactions on behalf of the trainee as well as potential damage to the student-teacher relationship or to the teacher's popularity. These issues, among others, may result in a lack of feedback in the clinical setting.

When feedback *is* given, however, several factors have been reported which potentially limit its efficacy. These include weak self-assessment and/or metacognitive capacities on behalf of the learner as well as an overpowering influence of affective reactions to feedback (Bing-You & Trowbridge, 2017). Finally, when standards of performance are not made clear, they may not be correctly perceived by the learners, thus making it more challenging to meet the standards held by supervisors (Nilson, 2016).

The importance of feedback cannot be understated as it is strongly associated with student achievement (Hattie, 2009) as well as with increases in programs rated as high in quality by exiting students, residents, and fellows (Bienstock et al., 2007). Indeed, feedback is a two-way street—it is provided by supervisors with the intent of altering or reinforcing behavior, but equally, it must be recognized, comprehended, and evaluated by the learners. Thus, promoting high-quality feedback (and its uptake) requires a measured approach to ensure its success.

In this Guide

This guide is divided into three parts, each of which touches upon important areas of feedback. In part one, we define feedback and discuss the aspects which make it unhelpful as well as those which have been demonstrated to make it most effective. In part two, we look at the role of metacognition and self-assessment in the feedback process. Finally, in part three, we present a model of clinical decision making that incorporates focused, skill-based feedback, metacognition, and a concrete action plan to ensure that feedback is taken up by the learner in future performance.

Part I: What is Feedback?

Defining Feedback

"Feedback refers to information describing students' or house officers' performance in a given activity **that is intended to guide their future performance** in that same or in a related activity" (Ende, 1983, p. 777)

As evidenced in Ende's (1983) definition above, feedback is any input given to a learner with the intent of changing or reinforcing a behavior or thought process in future iterations of that behavior. For this to occur, we must be sure that our feedback has (a) been recognized as such, (b) is understood by the learner, and (c) specific suggestions for improvement have been given. Doing so allows the learner to capitalize on the feedback as clear indicators for future performance have been identified.

Unhelpful Feedback

Hewson and Little (1998) identified several elements which make feedback unhelpful to learners. These include:

1. **Too general/unspecific** – A quick "good job" does not pinpoint performance that was done well or that needs improvement. It provides very little information to the learner.
2. **No alignment of goals** – If a learner is unaware of the performance goals held by the supervisor, it is very difficult for him or her to align their performance with those goals. Articulating and setting goals is an important part of high-quality feedback.
3. **No suggestion for improvement** – Criticism that is not resolved with suggestions for future performance fails to embrace the characteristics of effective feedback.
4. **Based on hearsay** – When a supervisor fails to directly observer a learner's performance, the only potential feedback that they can provide comes from outside sources. It is imperative to engage in direct observation so that specific comments can be made.
5. **Too teacher-centered** – Recall from above that feedback is a two-way street. When supervisors do not engage learners in a discussion around the feedback they are providing, they run the risk of it being misunderstood, brushed off, or causing adverse affective responses.
6. **Individuals are not passive recipients** (Teunissen et al., 2009) – Reiterating the point above, it is important to bear in mind that learners are not passive recipients of feedback. They are continuously monitoring to determine how new information fits with old information. It is important that feedback sessions be conversations between both parties.

Effective Feedback

Much work has been done to examine the effectiveness of feedback in clinical medical education. The following list provides examples of the features of effective feedback which have been identified in the literature.

1. **Recognition of feedback**: It is suggested that feedback often goes unrecognized, and this is frequently a complaint that learners cite on program evaluations. In order to address this issue, you can easily state your intent to provide feedback directly. Examples include:
    a. Ask directly: "Can we take a few moments to give you some feedback?" (Bienstock et el., 2007, p. 509)
    b. State directly: "I'd like to give you some feedback"
2. **Focus on skills** (Hewson & Little, 1998; Kelly, 2019): A specific focus on the skills that need improvement or that should be reinforced is essential. It is suggested that a focus on skills can be improved by:
    a. Making use of clear examples (Ende, 1983) and providing specific suggestions for improvement (Hewson & Little, 1998) with clear criteria for success (Nilson, 2016)
    b. State: "When you said/did… I was (pleased, relieved, concerned) because…" (Bienstock et al., 2007, p. 512)
3. **Based on observations** (Kelly, 2019): Feedback should be based on direct observation of behaviors and not on hearsay from others.
4. **Create a conducive, nonthreatening environment** (Ende, 1983; Kelly, 2019): Moving to an office or other empty space lowers anxiety and makes learners more receptive to feedback.
5. **Limited in quantity**: More than one or two key points of feedback may overwhelm learners.
6. Avoid ambiguous information
    a. State directly: "I know there are many ways to do [a certain procedure], but this is my preferred way"
7. **Allow for student self-assessment** (see Part II: Fostering Metacognition below) (Bienstock et al., 2007)
8. Faculty members should also ask for feedback (Bienstock et al., 2007)
    a. Doing so fosters a climate of mutual trust and respect and conveys that everyone can use feedback.
9. **Encourage trainees to seek feedback** (Teunissen et al., 2009): Make it clear from the outset that trainees should feel free to ask for feedback whenever they feel necessary.
    a. Rider and Longmaid (1995) provide a laundry list of guidelines for *recipients* of feedback (see Appendix A)
10. **Create an action plan** (Bienstock et al., 2007): Formulating a specific plan for improvement greatly improves learners' ability to take up and incorporate feedback. See Appendix B for further information regarding *The Anatomy of a Feedback Session* (Bienstock et al., 2007).

Creating the Conditions for Feedback

There are often instances in which providing feedback may be difficult when we interact with learners who may be more passive. In these situations, it is necessary for us to create the conditions for feedback to occur.

1. **Create the necessary data points:** Feedback cannot be given unless we have generated significant data points upon which to base or responses. Note taking is an easy way to ensure that we are paying full attention to interactions with the intent of incorporating those data points into our feedback.
2. **Using phrases** such as "I noticed that you did…" or "I noticed the patient's response when you did…" are a great way to initiate a conversation around an interaction. By setting the stage based on an observable action, you can then probe for deeper information and provide the necessary feedback.
3. **Get a commitment!** When we allow our learners to continuously defer to more experienced others in the decision-making process, it becomes more difficult for us to understand their process of clinical reasoning.
4. **Ask learners to initiate feedback:** By asking our learners to initiate feedback, we gain insight into the areas which they feel that they most need to improve. This may be achieved by asking them to:
    a. Think of an area that they'd like to improve
    b. Asking: "What do you think it will take for you to improve in this area?" and "How will you know when you've met your goals?"
    c. Asking: "How can I support you in this?"

Models for Providing Feedback

1. **SMART:** Though the SMART acronym has been discussed principally in relation to learning objectives, it is equally applicable to providing effective feedback. The following ideas should be taken into consideration as often as possible when feedback is to be delivered to learners.
    - **Specific:** Feedback should be specific in that it identifies a targeted behavior that is easily recognized by the learner. Simply saying "please try to do this a little better next time" fails to meet the criteria as it does not provide the learner with a specific a behavior that may be improved.
    - **Measurable:** When feedback is measurable, it is suggestive of the fact that it can be assessed against a given standard.
    - **Achievable:** Learners vary in both knowledge and skills. Recognizing the level of the learner will allow us to provide feedback that is achievable. Keep in mind that more advanced learners should be challenged with more developing more advanced knowledge and skills, whereas more novice learners may need to focus on the basics.

- **Relevant:** For feedback to be relevant, it must pertain to the learner's present context and provide suggestions for future behaviors within that context.
- **Timely:** The longer we wait to provide feedback, the greater the chance that the learner will not specifically recall the interaction and will perceive the feedback as irrelevant.

2. **The McKinsey Model:** The McKinsey Model is a simple way to conceptualize and deliver feedback in all situations. Simply follow the A, B, Cs!
    - **Part A** is the specific action, event, or behavior you'd like someone to change
    - **Part B** is the impact of that behavior
    - **Part C** is a suggestion for what the person could do differently next time

The McKinsey model can easily be put into action by following a simple scripted formula when giving feedback:

"When I observed you do [A], it made me feel [B]. In the future, I'd recommend doing [C]."

Keep in mind that this formula can be adjusted to fit the particular needs of your context. For example, you may wish to convey how an action made *the patient* feel (or react). In addition, you may wish to reinforce a certain behavior that was done well. In this case, you may emphasize this behavior in Part A.

Part II: Fostering Metacognition through Feedback

Defining Metacognition

Metacognition is understood as being aware of, or thinking about, one's own cognition. Individuals with developed metacognitive capability excel in planning how to approach tasks, monitoring their progress and comprehension when completing a task, and finally, evaluating and reflecting on their performance once the task is complete.

As Bing-You and Trowbridge (2017) suggest, "adequate metacognitive capacity is necessary for feedback information to be translated and interpreted properly by learners" (p. 1331). For feedback to be successful, learners must actively engage in a process of comprehending and assimilating feedback so that the desired effects can be realized in future performance. Providing a space for learners to reflect and self-assess may promote the development of strong metacognitive capacity.

Self-assessment and a developed **metacognitive capacity** begin with self-awareness. When working with learners, it is important to consider the following:

- Are learners aware of their goals?
- Are they aware of what it takes to *achieve* those goals?
- Do they assess their progress towards those goals?
- Do they assess what they haven't understood?

Before beginning a feedback session, you may consider asking the following questions to foster self-assessment and metacognition:

- "How do you think it went?"
- "What aspects do you think were successful?"
- "What aspects need improvement?"
- "What are you working on in your development plan right now? What do you think that you did well related to your goal?"

Additional questions to promote self-assessment and metacognition include:

- *"What **strategies** will you use to achieve your goal?"* (active listening, note taking, visual representation of material, self-quizzing, writing a summary, etc.)
- "What **strengths** do you bring to the task?"
- "What are your **weaknesses** and how can you make up for them?"
- "How is your thinking on this topic changing?"
- "What are you still having trouble understanding?"
- "What do you need to do differently next time you take on a similar task?"

Part III: The One-Minute Preceptor: A Model for On-the-Fly Feedback

Indeed, as Ende (1983) suggests, "the most effective feedback often is that which occurs on a day-to-day basis, as part of the flow of work on the ward, and as close to the event as possible" (p. 779). Having time to schedule sit-down feedback sessions with in-depth discussion is often a luxury. As such, it is necessary to develop and implement techniques to provide feedback on the fly.

The **One-Minute Preceptor** model (Neher et al., 1992) allows supervisors to focus on the decision-making process of the learner while fostering metacognition and providing specific, context-dependent feedback to inform future performance. The five steps of the model are as follows:

1. **Get a Commitment**: To begin, after the student or resident has examined the patient, the preceptor must encourage the student to commit to a differential diagnosis instead of simply looking to the preceptor to provide his or her thoughts.

2. **Probe for Supporting Evidence**: Once a commitment has been made, the preceptor can probe for evidence supporting the learner's differential diagnosis. This will allow the preceptor to (a) evaluate the process of clinical reasoning by which the learner reached his or her decision, and (b) identify any gaps in knowledge.

3. **Teach General Rules**: Once the preceptor has identified gaps in knowledge, at this point he or she can teach one or two "pearls" related to the specific case.

4. **Reinforce What Was Done Right**: Next, the preceptor can offer feedback as to the strengths noted in the learner's performance. In this way, "providing positive feedback to the learner about points of the case where they got it right reinforces competency" (Chinai et al., 2017).

5. **Correct Mistakes**: Finally, additional feedback can be offered to address future performance. As Neher et al. (1992) suggest, this step may begin by asking students/residents "to critique their own performance," thus promoting metacognition. This step can be concluded by offering specific suggestions for improvement. Be sure to outline what successful performance would look like in future iterations.

Appendix A

Guidelines for Learners on Receiving Feedback (Rider & Longmaid, 1995)

1. Remember that receiving feedback effectively requires a degree of maturity, self-awareness, and **a commitment to the goals of learning clinical skills and improving clinical performance**.
2. **Formulate learning goals** for yourself and share these with your supervisor. Learning goals should be mutually agreed on at the beginning of a clinical rotation or learning experience. Feedback can then be linked to your learning goals.
3. Take an **active rather than passive role** in receiving feedback. Seek feedback as an ongoing part of your clinical learning, both on a day-to-day basis and in formal feedback sessions.
4. When receiving feedback, ask for **specific examples** if your evaluator gives none. Seek clarification wherever needed. Additional information can be helpful whether the feedback is positive or negative.
5. If you are given negative feedback, make sure you understand what the issue is, why it is an issue, and what can be done about it. Ask as many questions as needed to gain clarification. Be involved in formulating solutions to improve the situation. Where appropriate**, develop a concrete plan** for implementing improvements. Because negative feedback can be (though rarely is) a product of interpersonal conflict between you and your evaluator, if you feel this might be the case, use a trusted adviser or friend to help sort out the issues.
6. Consider the feedback you receive as **an opportunity for growth and learning**. Use your adviser, mentors, and friends as sources for gaining an enlarged perspective.
7. When receiving feedback, discuss not only what you can do to improve, but also **what you are doing well, your strengths, and your progress**. If learners are unaware of things they are doing well, they may drop some of the positive behaviors from their repertoires.
8. Accept positive feedback as an opportunity to gain a clearer sense of your strengths and to provide an impetus for further growth.
9. Do not be too hard on yourself; you may be your harshest critic. Give yourself credit for what you do know and what you do well.
10. Timing is important. If a feedback session is offered when you are stressed or rushed, ask to reschedule.

Appendix B

The Anatomy of a Feedback Session (Bienstock et al., 2007)

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."

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