

# Feedback: Cultivating a Positive Culture

AARON KRAUT, MD  
 LALENA M. YARRIS, MD, MCR  
 JOAN SARGEANT, PHD

Feedback has long been recognized as the “cornerstone of effective clinical teaching.”<sup>1</sup> Recently, we have seen emphasis shift from an instructor-centric paradigm to a learner-centric model that aims to understand how learners seek, receive, and incorporate feedback. These are crucial first steps in improving feedback effectiveness. Rather than continuing to focus on feedback delivery methods, recent publications highlight the importance of the learner’s perspective in the feedback conversation through nurturing the skill of “reflection-in-action” and promoting a culture of “informed self-assessment.”<sup>2,3</sup> This paradigm shift represents a welcome change, as a focus on learner-dependent variables better aligns with what really matters in the feedback conversation—improving learner performance. To ultimately improve performance, we must better understand what causes the feedback magic to occur: Which conditions of the learning environment spark recipient engagement, reflection, and motivation to change behavior?<sup>4</sup>

Even if we cannot grasp *exactly how* to promote reflection or informed self-assessment in our learners, we recognize the need for change in our current feedback practices. Recent reports of learner dissatisfaction with feedback quantity and quality and faculty-reported barriers to engaging in feedback likely resonate with our own experiences as learners and clinical teachers.<sup>5,6</sup> However, the remedies are much more likely to be based on cultural than individual factors. In a 2014 *Journal of Graduate Medical Education* commentary, Watling<sup>7</sup> argued that our current learning culture may discount the value of feedback conversations. Yet, there is reason for hope if we can engage our learners in the solution. Resident peer educators may be uniquely suited to challenge the status quo of feedback cultures at our institutions.<sup>7</sup>

Two papers in this issue of *JGME* contribute to the discussion of resident-driven change in institutional feedback culture. De la Cruz and colleagues<sup>8</sup> present a qualitative exploration of resident perceptions of peer-to-

peer feedback that examines factors that affect learner response to feedback. They identify themes that may improve residents’ ability to give and receive feedback, including improved standardization and structure of feedback encounters, enhanced resident education on giving and receiving feedback, and the implementation of defined feedback goals.<sup>8</sup> In a second paper, a multi-institution group led by Reddy<sup>9</sup> casts a spotlight on specific barriers to resident-initiated change in an institutional feedback culture, most notably that many trainees fail to appreciate the difference between summative “evaluation” and “feedback.” To understand how the findings by de la Cruz et al<sup>8</sup> and Reddy et al<sup>9</sup> support resident physicians’ role as powerful agents of change in a shifting feedback culture, it is helpful to consider recent transformations in thinking regarding feedback.

Cognitive theory illuminates how feedback is processed by learners and, ultimately, how it affects personal growth. On a fundamental level, feedback can be viewed as an opportunity to bring attention to a gap between the recipient’s knowledge or skill and the level of knowledge or skill he or she needs to attain. Ideally, the recipient’s awareness of that gap can then serve as a catalyst for further learning.<sup>10</sup>

However, exactly how a learner uses feedback to grow and develop is complicated. This process, termed “informed self-assessment” by Sargeant et al,<sup>3</sup> represents a balancing act. The learner attempts to access, integrate, and analyze inputs from concrete sources, such as comments from multiple supervisors. Internal factors such as emotions influence the decision to integrate these inputs to arrive at a final self-assessment, which can influence future patterns of behavior.<sup>3</sup> Archer<sup>2</sup> outlines a similar model to describe how learners use feedback to aid personal development, suggesting that educators can use feedback to promote a pattern of “self-directed assessment seeking” in learners, whereby they actively and independently look to trusted sources, including peers, for input to self-monitor behavior. This results in the ideal outcome—the creation of a lifelong learner motivated to consistently self-assess and improve.

Not surprisingly, emotion plays a sizeable role in influencing cognition and, ultimately, if and how information is integrated into an informed self-assessment.<sup>11,12</sup> As medical educators, we appreciate that the learning environment and the degree to which it supports learning

**Aaron Kraut, MD**, is Chief Resident in Emergency Medicine, Northwestern University Feinberg School of Medicine; **Lalena M. Yarris, MD, MCR**, is Associate Professor, Emergency Medicine Residency Director, and Education Research Fellowship Co-Director, Oregon Health & Science University; and **Joan Sargeant, PhD**, is Professor, Division of Medical Education, Dalhousie University, Halifax, Nova Scotia, Canada.

Corresponding author: Aaron Kraut, MD, Northwestern Emergency Medicine, 211 E Ontario Street, Suite 200, Chicago, IL 60611, aaron-kraut@northwestern.edu

DOI: <http://dx.doi.org/10.4300/JGME-D-15-00103.1>

## BOX STRATEGIES FOR FACILITATING AN EFFECTIVE FEEDBACK CULTURE IN MEDICAL EDUCATION

1. Explicitly teach learners feedback theory and methods. During early socialization to residency, establish an expectation for frequent feedback encounters, and encourage feedback-seeking behaviors. Empower residents to act as drivers of change in their local feedback cultures.
2. Emotions can impact feedback interpretation. Aim to provide feedback when learners possess the self-confidence to allow them to receive and incorporate it.
3. Differentiate feedback from assessment. Feedback is formative; the key target is the learner. Assessment ultimately aims to inform programs of learner progression.
4. Institute system changes to reinforce feedback as a habit. Create daily triggers for feedback, such as building it into care transitions or other educational routines.
5. Have peers and faculty practice feedback in both high- and low-stakes environments. Authentic feedback conversations can be incorporated into clinical teaching, didactic teaching, and simulation curricula.
6. Faculty can make positive contributions to the feedback culture by directly observing learner performance, inviting resident self-assessment, and considering their emotional state and mental frames when providing specific suggestions for improvement. Faculty who develop longitudinal relationships with trainees may be particularly effective when both engaging in frequent feedback and role modeling feedback-seeking behavior for trainees in everyday clinical practice.

can have a profound influence on learners and their emotional reactions to, and hence their receptivity to, feedback.<sup>13</sup>

Several authors have suggested recipes for promoting a culture in which learners are more apt to accept feedback. Eva et al<sup>14</sup> identify that learners should be approached with feedback only when they possess the self-confidence to admit their shortcomings (ie, not during their initial attempt at a procedure or a challenging patient conversation). Learners are much more likely to accept feedback when it comes from a credible and beneficent source who has been involved in direct observation of skills or behaviors and who provides the opportunity for learner self-assessment during the feedback encounter.<sup>14</sup> Molloy and Boud<sup>4</sup> suggest deliberately removing the stakes of summative assessment from feedback, to ensure learners are oriented to the purpose of feedback prior to the start of clinical rotations.<sup>4</sup> Perhaps most important with respect to learner acceptance of feedback, the institutional culture must expect, accommodate, and eventually “normalize” pervasive feedback. The more ubiquitous feedback becomes in all training activities, the easier learners can achieve a state of “reflection in action.”<sup>10</sup>

Intrinsic motivation may also impact the way learners seek and receive feedback. Teunissen et al<sup>15</sup> differentiate between “goal-oriented” learners, who are motivated by a desire to acquire new skills and knowledge, and “performance-oriented” individuals, who are preoccupied with garnering positive judgments of their competence from supervisors. They suggest that goal-oriented learners are voracious seekers of feedback, and being motivated by a desire to learn is consistently cited as a positive predictor of feedback-seeking behavior.<sup>16,17</sup> Unfortunately, few learners begin training programs with a purely goal-oriented mindset; the very nature of higher education and the process of arriving at a postgraduate training program dictate otherwise.

To promote a more favorable institutional feedback culture, faculty can employ several techniques to shape more goal-oriented trainees. Learners benefit from early

training on how to respond to both positive and negative feedback, including how to self-regulate the ego effects associated with negative feedback. Additionally, when feedback is incorporated into training on a daily basis, learners are more apt to actively seek it out. Trainees also indicate they are more likely to seek feedback when they perceive that faculty view them as learners rather than additional labor in a busy clinical environment. Thus, faculty should make time to directly observe trainees, which will render their subsequent feedback more reliable and promote a sense of investment in learners’ professional development.<sup>18</sup> To promote a culture of feedback-seeking behavior, it is helpful to both encourage feedback seeking during the socialization period of newcomers to the organization and to design training programs that specifically aim to develop learning, goal-oriented individuals.<sup>17</sup> Strategies for facilitating positive change in feedback culture are provided in the BOX.

As de la Cruz and colleagues<sup>8</sup> illustrate in their study, peer-to-peer feedback provides an opportunity to capture the formative input of sources who, based on direct observation, are able to provide feedback that is viewed by their peers as authentic and unique.<sup>8</sup> Resident observation of colleague behaviors is already ubiquitous within training programs: to not capture it is a missed opportunity, for both improving learner performance and feedback culture. The illumination by Reddy et al<sup>9</sup> of some of the barriers that hinder resident engagement in feedback should not discourage us, but rather empower us to overcome them. While peer-to-peer feedback is only one component of a comprehensive feedback program, nurturing its success may have downstream benefits on the feedback culture. As a community of educators, we would be wise to adopt strategies to build and maintain a learner-centric feedback culture if we are passionate about improving learner performance.

## References

1. Cantillon P, Sargeant J. Giving feedback in clinical settings. *BMJ*. 2008;337:a1961.

- 2 Archer JC. State of science in health professions education: effective feedback. *Med Educ.* 2010;44(1):101–108.
- 3 Sargeant J, Armson H, Chesluk B, Dornan T, Eva K, Holmboe E, et al. The process and dimensions of informed self-assessment: a conceptual model. *Acad Med.* 2010;85(7):1212–1220.
- 4 Molloy E, Boud D. Seeking a different angle on feedback in clinical education: the learner as a seeker, judge and user of performance information. *Med Educ.* 2013;47(3):224–231.
- 5 Tuck KK, Murchison C, Flores C, Kraakevik J. Survey of residents' attitudes and awareness toward teaching and student feedback. *J Grad Med Educ.* 2014;6(4):698–703.
- 6 Yarris L, Linden J, Hern GH, Lefebvre C, Nestler D, Fu R, et al. Attending and resident satisfaction with feedback in the emergency department. *Acad Emerg Med.* 2009;16(suppl 12):76–81.
- 7 Watling C. Resident teachers and feedback: time to raise the bar. *J Grad Med Educ.* 2014;6(4):781–782.
- 8 de la Cruz MD, Kopec MT, Wimsatt LA. Resident perceptions of giving and receiving peer-to-peer feedback. *J Grad Med Educ.* 2015;7(2):208–213.
- 9 Reddy ST, Zegarek MH, Fromme HB, Ryan MS, Schumann SA, Harris IB. Barriers and facilitators to effective feedback: a qualitative analysis of data from multispecialty resident focus groups. *J Grad Med Educ.* 2015;7(2):214–219.
- 10 Kluger A, Denisi A. The effects of feedback intervention on performance: a historical review, a meta-analysis, and a preliminary feedback intervention theory. *Psychol Bull.* 1996;119(2):254–284.
- 11 Artino A. When I say ... emotion in medical education. *Med Educ.* 2013;47(11):1062–1063.
- 12 McConnell MM, Eva KW. The role of emotion in the learning and transfer of clinical skills and knowledge. *Acad Med.* 2012;87(10):1316–1322.
- 13 Sargeant J, Eva K, Armson H, Chesluk B, Dornan T, Holmboe E, et al. Features of assessment learners used to make self-assessments of clinical performance. *Med Educ.* 2011;45(6):636–647.
- 14 Eva K, Armson H, Holmboe E, Lockyer J, Loney E, Mann K, et al. Factors influencing responsiveness to feedback: on the interplay between fear, confidence, and reasoning process. *Adv Health Sci Educ.* 2012;17(1):15–26.
- 15 Teunissen PW, Stapel DA, van der Vleuten C, Scherpbier A, Boor K, Scheele F. Who wants feedback? An investigation of the variables influencing residents' feedback seeking behavior in relation to night shifts. *Acad Med.* 2009;84(7):910–917.
- 16 Bok HG, Teunissen PW, Spruijt A, Fokkema J, van Beukelen P, Jaarsma D, et al. Clarifying students feedback-seeking behaviour in clinical clerkships. *Med Educ.* 2013;47(3):282–291.
- 17 Crommelinck M, Anseel F. Understanding and encouraging feedback-seeking behavior: a literature review. *Med Educ.* 2013;47(3):232–241.
- 18 Delva D, Sargeant J, Miller S, Holland J, Brown P, Leblanc C, et al. Encouraging residents to seek feedback. *Med Teach.* 2013;35(12):e1625–e1631.