Adapting Feedback to Individual Residents: An Examination of Preceptor Challenges and Approaches

Amanda Roze des Ordons, MD, MMEd
Adam Cheng, MD
Jonathan Gaudet, MD, MSc
James Downar, MD, MHSc
Jocelyn Lockyer, PhD

ABSTRACT

Background Feedback conversations between preceptors and residents usually occur in closed settings. Little is known about how preceptors address the challenges posed by residents with different skill sets, performance levels, and personal contexts.

Objective This study explored the challenges that preceptors experienced and approaches taken in adapting feedback conversations to individual residents.

Methods In 2015, 18 preceptors participated in feedback simulations portraying residents with variations in skill, insight, confidence, and distress, followed by debriefing of the feedback conversation with a facilitator. These interactions were recorded, transcribed, and analyzed using thematic and framework analysis.

Results The preceptors encountered common challenges with feedback conversations, including uncertainty in how to individualize feedback to residents and how to navigate tensions between resident- and preceptor-identified goals. Preceptors questioned their ability to enhance skills for *highly performing* residents, whether they could be directive when residents had *insight gaps*, how they could reframe the perceptions of the *overly confident* resident, and whether they should offer support to *emotionally distressed* residents or provide feedback about performance. Preceptors adapted their approach to feedback, drawing on techniques of coaching for *highly performing* residents, directing for residents with *insight gaps*, mediation with *overly confident* residents, and mentoring with *emotionally distressed* residents.

Conclusions Examining the feedback challenges preceptors encounter and the approaches taken to adapt feedback to individual residents can provide insight into how preceptors meet the challenges of competency-based medical education, in which frequent, focused feedback is essential for residents to achieve educational milestones and entrustable professional activity expectations.

Introduction

Competency-based medical education requires frequent feedback over an extended period of time.[1,2] Unlike the focused feedback provided by music and sports instructors, day-to-day feedback in medicine tends to be more global and less deliberate, as preceptors juggle patient care and teaching commitments.[3] Feedback "for" learning, compared with "of" learning, requires that preceptors focus on small changes in performance to improve resident expertise in graduated ways to align with milestones and entrustable professional activities (EPAs).

Helping preceptors individualize feedback has not received much attention. Individualized feedback favorably impacts general clinical, technical, and communication skills, and patient care.[4–7] It requires preceptors to consider the individual resident and his or her unique context. Preceptors report difficulties in guiding residents at performance extremes (those who excel or struggle), and those who lack insight about their work, or who are not receptive to feedback.[8] With feedback conversations occurring in closed settings with little oversight, strategies that preceptors use with different residents are largely unknown.

The purpose of this qualitative study was to explore challenges that preceptors encounter when working with residents and how they approach and adapt their feedback accordingly.

Methods

This study was conducted at a large, Canadian, urban academic teaching hospital. We recruited volunteer physician preceptors from multiple medical and surgical specialties who were interested in participating in a faculty development program that entailed a short presentation on approaches to feedback, followed by feedback simulations and debriefings with skilled facilitators. We created 4 scenarios of resident-patient interactions in which professional actors portrayed residents with the following qualities:

DOI: http://dx.doi.org/10.4300/JGME-D-17-00590.1

BOX Simulated Scenarios and Distribution of Participants

Skill: Highly Performing Resident
The resident has good basic communication skills and seeks to understand the patient in discussing goals of care to help facilitate a decision consistent with the patient's goals, values, and medical situation. The resident is able to appraise his or her own communication skills realistically and is seeking to improve further. The resident is insightful in discussions with the preceptor and interested in learning.

Feedback challenge: Reinforce good performance and coach to optimize performance.

Preceptor-resident feedback: n = 15

Facilitator-preceptor debriefing: n = 14

Insight: Resident With Insight Gaps
The resident has an optimistic outlook, a positive attitude, and a cheerful approach. The resident thinks the patient has a good chance of recovering from the infection and recommends full resuscitation for goals of care. The resident wants to impress the preceptor and is agreeable with any feedback offered.

Feedback challenge: Help the resident identify performance gaps.

Preceptor-resident feedback: n = 13

Facilitator-preceptor debriefing: n = 14

Receptivity: Overly Confident Resident
The resident is confident that discussing goals of care with patients is easy, and is focused on giving the patient realistic information without regard for empathy. The resident is not interested in considering corrective feedback.

Feedback challenge: Respectfully guide the resident to consider other perspectives.

Preceptor-resident feedback: n = 14

Facilitator-preceptor debriefing: n = 14

Emotion: Emotionally Distressed Resident
The resident is struggling with family issues and has difficulty focusing on the conversation with the patient. The resident is upset by what he or she has perceived as a suboptimal conversation with the patient and the personal issues experienced outside of work. The resident is overwhelmed and has difficulty listening to information the preceptor discusses.

Feedback challenge: Identify and respond to the resident's need for support.

Preceptor-resident feedback: n = 13

Facilitator-preceptor debriefing: n = 14

highly performing, *gaps in insight*, *overly confident*, and *emotional distress* (BOX). These scenarios were chosen based on literature suggesting challenges preceptors encounter in these contexts,[8] with details grounded in our experiences as medical educators.

The simulations were held in 2015 and began with a 2-minute video of a resident (a trained actor) discussing goals of care with a patient with advanced lung cancer who had been admitted to the hospital with an infection. The preceptor had 8 to 10 minutes for a feedback conversation with the resident. The facilitator then debriefed the preceptor about the feedback for 8 to 10 minutes. Preceptor feedback conversations with residents and facilitator debriefing conversations with preceptors were video recorded, and the audio was transcribed verbatim and anonymized.

What was known and gap
Feedback is important to residents' development, yet little is known about how preceptors address challenges posed by residents with different skill sets, performance levels, and personal contexts.

What is new
A qualitative study assessed how preceptors adapted their feedback to different contexts.

Limitations
Single institution study and feedback limited to communication skills may reduce generalizability.

Bottom line
Preceptors adapted their feedback to the different contexts, using coaching, directing, mediating, and mentoring strategies. This could inform faculty development to improve feedback provision.

Reflexivity

The research team consisted of experienced medical educators with backgrounds in critical care medicine (A.R., J.G., and J.D.), palliative care (A.R. and J.D.), emergency medicine (A.C. and J.G.), pediatrics (A.C.), and anesthesiology (A.R.), and an education researcher (J.L.). The clinicians on the team developed the scenarios and participated as facilitators. Strategies used to enhance credibility included independent analysis by 2 team members (A.R. and J.L.), with regular meetings to discuss perceptions and potential biases, refine the coding scheme, and consider emerging interpretations[9] and detailed verbatim quotes.[10]

The study was approved by the University of Calgary Conjoint Health Research Ethics Board.

Data Analysis

Two members of the research team (A.R. and J.L.) analyzed the transcripts to explore how preceptors approached the scenarios. We drew on framework analysis,[11] a structured and systematic form of thematic analysis[11,12] that facilitates comparison of large qualitative data sets within and across scenarios, involving familiarization, coding, framework development, indexing, charting, and interpretation (FIGURE 1). Data analysis began by viewing the videos and reading through the transcripts in depth to become familiar with the data. We then coded the transcripts, paying attention to common and unique approaches taken by

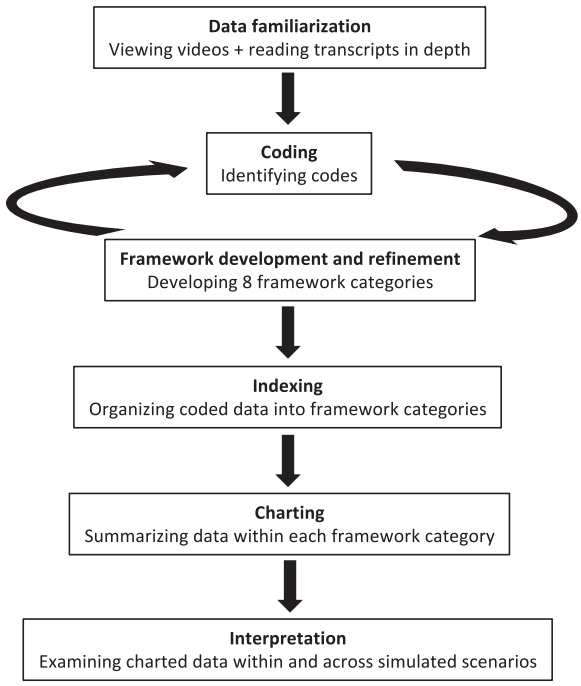

FIGURE 1
Framework Analysis

preceptors. We also noted how residents responded to preceptors and how preceptors responded to facilitators. The coding team met after reviewing every 2 to 5 transcripts to discuss emerging codes and interpretations; discrepancies were resolved through discussion. From the codes, we developed 8 framework categories: setting the agenda, building the relationship, reactions, description, performance analysis, teaching, summarizing, and strategizing. Data from each transcript were indexed to the framework categories, and data within each category were charted.

In the interpretation phase, we examined charted data within and across simulated scenarios, looking for similarities and differences in the challenges encountered and how preceptors approached the residents in the different scenarios. We focused on preceptor-resident data to identify patterns of communication in the feedback conversations, and on facilitator-preceptor data to gain a deeper understanding of preceptor experiences and challenges in interacting with the residents.

Results

The study included 18 preceptors, from medical (15) and surgical (3) specialties. Preceptors had been in clinical practice for a mean of 15 ± 12 years. Data analyzed encompassed 55 video transcripts of preceptor-resident feedback and 56 video transcripts of facilitator-preceptor interactions (the numbers of videos by scenario are shown in the BOX).

For each scenario, we identified the challenges encountered and the approaches taken by the preceptor, as well as unique challenges and effective approaches that were specific to the context portrayed (as described in the TABLE).

Preceptor Challenges

We identified common challenges across all 4 scenarios. Preceptors recognized the need to integrate resident learning with their own goals and develop a shared agenda for feedback.

> Preceptor to facilitator: "You kind of go in with an agenda, what you want to cover, and you have this idea of how things would go and then it's sort of like, side-railed." (Video 31.2)

Nonetheless, preceptors had difficulty finding an appropriate balance between reinforcing what was done well and discussing areas for improvement.

> Preceptor to facilitator: "I'm very uncomfortable at giving negative feedback, do you know what I mean? Like I avoid confrontation." (Video 49.2)

Preceptors struggled to balance the resident perspective with sharing their own perceptions. They wanted to encourage reflection and uncover the rationale behind observed behaviors, while at the same time considering strengths and gaps. Some participants felt the preceptors were overly directive, while others spent the majority of the time asking reflective questions of the resident without adding their own observations.

There were also specific challenges unique to each scenario. For the *highly performing* residents, preceptors voiced challenges around identifying what to discuss and wanting to help the residents improve, while not necessarily feeling confident that the residents were "experts."

> Preceptor: "I didn't want to just praise her. Obviously she's a good communicator, but I had difficulty trying to figure out what else I could evaluate."

> Facilitator: "So you're very right . . . You want to provide meaningful feedback to try and help them improve and it's often a struggle to do that when someone is already performing at this kind of level. Yeah, it's tough." (Video 5.2)

There was additional uncertainty in how to offer ideas for improvement for a highly performing

TABLE
Preceptor Challenges and Effective Approaches to Different Residents

Resident Variations	Preceptor Challenges	Effective Approaches
Residents in general	*Individualizing feedback:* Developing shared agenda *Tensions:* Balancing reinforcing with corrective feedback Balancing between eliciting resident perspective and sharing own perspective Navigating time constraints	Developing rapport with resident Exploring resident perspectives Adapting feedback to resident Teaching by sharing own experiences
Skill: highly performing resident	*Individualizing feedback:* Identifying what feedback can be helpful to resident who is already performing well *Tension:* Offering ideas for improvement while maintaining resident self-confidence	Framing feedback as a conversation with the goal of coaching to excellence Reinforcing good performance: calibrating self-awareness and self-assessment by encouraging resident to identify strengths and challenges or describing specific behaviors and their effects to facilitate future intentionality
Insight: resident with insight gaps	*Individualizing feedback:* Structuring feedback with resident who does not demonstrate insight *Tension:* Grappling with personal discomfort in offering directive feedback and desire for resident insight	Recognizing that repeatedly reframing self-assessment questions is ineffective in eliciting gaps or achieving insight Adopting a directive approach to feedback
Receptivity: overly confident resident	*Individualizing feedback:* Helping resident consider other perspectives *Tension:* Approaching disagreement without escalating conflict	Maintaining resident self-concept through normalizing the situation as challenging or validating elements of good performance Identifying points of agreement and building on with own perspective Encouraging reflection on patient experience Eliciting resident ideas for implementing teaching points
Context: emotionally distressed resident	*Individualizing feedback:* Exploring distress and supporting resident *Tensions:* Pursuing learning objectives versus changing focus to support Overlooking versus conveying need for improvement to resident in distress Negotiating boundaries in exploring distress and personal life issues	Following intuition that resident is distressed Exploring source of distress Normalizing without minimizing resident experience Asking permission to defer feedback Sensitively supporting resident through identifying supports and sharing own strategies

resident, without that resident thinking he or she had performed poorly.

For the resident with *insight gaps*, preceptors had difficulty facilitating greater insight or willingness to engage in self-assessment.

> Preceptor to facilitator: "It was awkward. It seemed like there wasn't a lot of ability to self-reflect, or look at what they've done through a critical lens. So then it was difficult for me to try and get anything." (Video 56.2)

There was particular tension around the appropriateness of directive feedback, with hesitance in being direct. Preceptors hoped that reflective questions would elicit resident insight that could then be discussed.

> Preceptor to facilitator: "I was trying to find out if there was anything that he saw in there that would

kind of open a door or give us a starting point." (Video 45.2)

When a resident was *overly confident* preceptors tried to shift the resident from being defensive to considering other perspectives. This was associated with the tension of approaching disagreement without argument and potential escalation of conflict.

Preceptor: "This was not acceptable, in no uncertain terms. There are things that you have to include."

Resident: "I disagree."

Preceptor: "You need to . . ."

Resident: "I mean I know you weren't there, so maybe you didn't get the same feeling I got from him, but I felt like I delivered the facts, he made the decision. It was good."

Preceptor: "It's hard for me to provide feedback if you seem so closed to receiving it. What's going on?" (Video 18.1)

Last, for the *emotionally distressed* resident, preceptors negotiated how to explore distress and offer support without prying or intruding on personal space.

Preceptor to facilitator: "This is a fairly emotionally charged situation. I don't know what permission I've got at this point, if any, to get into this, and if I give you feedback, if that's going to be accepted or if it may seem inappropriate." (Video 30.2)

Preceptors also expressed feeling torn between addressing what they observed and supporting the resident experiencing distress. They felt conflicted about discussing gaps in performance, while not wanting to add to the resident's distress.

Preceptor Approaches

Preceptors adopted several similar strategies in each scenario, including establishing rapport with the resident through introductions, a caring attitude, and empathy, along with "the basic assumption that residents are here to do their best, and everyone is smart and intelligent" (Video 19.2). Facilitators and preceptors noted the importance of exploring the resident's perspective to understand observed behaviors and identify gaps for discussion.

Across scenarios, some preceptors maintained flexibility through adapting the content and structure of the feedback conversation to resident needs. Others shared challenges they had encountered in their own clinical experiences as an approach to teaching. There were also specific approaches that preceptors adopted to facilitate effective feedback with the residents in the 4 different contexts.

For the *highly performing* resident, preceptors began by reinforcing what was done well to reassure the resident.

Facilitator to preceptor: "'Kudos to you, you did a fantastic job.' That's how I would say, right? Because then the person knows right away, okay, whew, I did a great job. Now I can be open with you and share with you my insecurities, really share with you what's on my mind, because I know that you think I'm legit, I did a good job, and be much more receptive to that." (Video 5.2)

This approach enabled feedback to be framed as a conversation, aimed at coaching the resident from a good performance to excellence.

Facilitator to preceptor: "You're coaching the fine, minute aspects of performance now, not the basics. This person has already mastered the basics. So it's about taking it from the basics for that someone who's already achieving at a high level and making them a superstar." (Video 4.2)

Preceptors encouraged residents to reflect on their own strengths and challenges. They offered specific observations to link behaviors to patient responses, guiding them in calibrating their self-awareness and self-assessment skills. The intention was to help residents more consciously apply effective techniques in future situations.

Preceptor to resident: "When I watched your approach, I saw you ask some really good open-ended questions, like, 'Have you had discussions previously, and what was that about goals of care? What's your understanding of your disease and where you are now?' And I thought the answers the patient gave you, from those open-ended questions, were really rich with information. How did you find it?" (Video 14.1)

For residents with *insight gaps* and eagerness to please the preceptor, a more direct approach was beneficial.

> Facilitator to preceptor: "You actually went right into that directive feedback. 'I think you did this well. I think this is the way you should do it. And here's my technique, this is what I do.' That's great, because you had somebody who you could see wasn't going to suddenly come up with a fountain of information." (Video 53.2)

Preceptors who asked questions to encourage the residents to identify gaps on their own did not appear to be as effective. This often led to circular conversations, where the preceptor repeatedly reframed the question with the hope of obtaining the desired response.

> Preceptor to facilitator: "Immediately I felt like there was maybe not a lot of insight into how this had gone or how else it might have gone. And I was throwing out that 'What do you think, what do you think, is there anything else you think you could have done differently?' Kind of trying those open-ended questions, but I didn't feel that I was very successful. I wasn't getting a lot back. He just wanted to hear what I thought." (Video 53.2)

For the resident who was *overly confident,* preceptors normalized the challenges of the situation and validated what was done well, maintaining resident self-esteem.

> Preceptor to resident: "I find that goals of care discussions can be really emotional for me; I like to talk about them afterward to explore how they went. How did you feel that conversation went?" (Video 21.1)

In asking open-ended questions to understand the resident's perspective, preceptors identified points they could agree with and then added their own observations, perspectives, and rationale.

> Preceptor to facilitator: "She was very focused on the facts, that she had gotten the facts, and needed to follow the facts and right information. I wanted to reinforce that part to get us on a parallel path; if I said that it is important to have the facts and give the right information, then maybe we could add some other aspects of communication and building rapport." (Video 24.2)

Preceptors asked questions to help this group of residents reflect on how they would feel as the patient so that the resident might consider a more empathic approach. Finally, eliciting resident ideas about strategies to implement some of the teaching points offered by the preceptor avoided disagreement around the teaching point itself.

For the resident who was *emotionally distressed*, participants followed their intuition that something was amiss and invited them to share their story.

> Preceptor to facilitator: "I kind of had . . . I had a feeling that something was up, just didn't really quite . . . the first 10 seconds I'm like, 'Uh, something's not right.'" (Video 39.2)

Maintaining an open mind while exploring the source of distress was important, as distress could be related to poor performance or underlying personal issues. Normalizing the situation without minimizing the resident's experience helped create a safe environment for dialogue.

> Preceptor to resident: "There are situations that we prepare for and we get into the situation and something happens and our minds go blank or we feel we didn't approach it in a way we would've liked to. What we get out of these sessions afterward is to look back on the scenario and see what we could've done differently. Is there something that you feel affected your performance today? Could you tell me about that?" (Video 40.1)

Preceptors sought permission from the resident to defer feedback to a later time, focusing instead on supporting the person sensitively. Compassionate responses included helping the resident identify a support system, and sharing approaches of how the preceptor or colleagues had previously addressed their own distress in clinical work.

> Preceptor to resident: "I'd like to spend a few minutes helping out with this situation, because it seems to me very, very important. Maybe we can leave how to manage the kind of discussion you had with the patient for later. Is that alright?" (Video 38.1)

Discussion

Preceptors in this study identified some common feedback challenges across all scenarios as well as challenges unique to different contexts, ones that required adaptation of their approach. Common challenges included developing a shared agenda, navigating degrees of directedness, and balancing discussion around reinforcing and corrective feedback within a short period of time. In addressing these common challenges, preceptors recognized that a

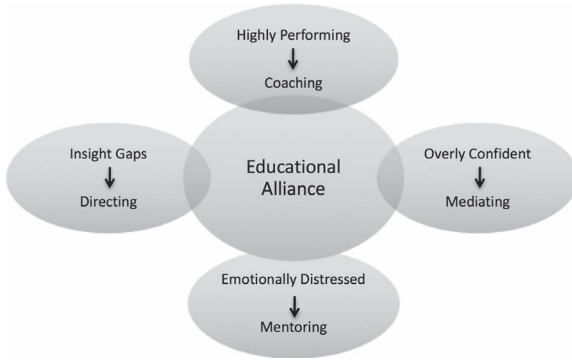

FIGURE 2
Approaches to Individualized Feedback Conversations

supportive relationship was foundational. They established rapport, explored residents' reactions and thoughts, adapted feedback, and shared their own clinical experiences. These approaches are congruent with general recommendations for effective feedback[13] and consistent with the concept of creating an educational alliance where the resident and preceptor feel safe to share perspectives and experiences.[14]

We also found that preceptors and facilitators incorporated techniques specific to different residents (FIGURE 2). For the *highly performing* resident, preceptors adopted a coaching role to help the individual recognize his or her strengths and further refine his or her skills. This involved encouraging reflection on how strengths could be further developed. For the resident with *insight gaps*, preceptors took a more directive approach to ensure that major performance gaps were addressed and strategies identified to mitigate gaps. In these cases, preceptors had to explicitly describe the gap for the resident to recognize his or her deficits and move the conversation forward to identify ways to address the gaps. For the *overly confident* resident, preceptors used mediation strategies to encourage residents to transition from defending their actions to reflecting on the patient's experience. This involved listening to the resident's rationale for his or her actions and finding common ground on which to negotiate an alternative approach. Finally, for the *emotionally distressed* resident, where emotion limited the ability to process performance feedback, a mentorship approach helped the resident identify resources to manage life events. This approach often required abandoning a discussion about performance in order to support the distressed resident. These approaches of coaching,[15] directing,[16] mediating,[17,18] and mentoring[19] have demonstrated effectiveness in other contexts.

Our research has implications for faculty development. While general feedback skills remain foundational, we believe that presenting preceptors with common feedback challenges creates an opportunity to consider how to approach and adapt feedback under variable conditions. Further, this type of interactive learning may help preceptors enhance their effectiveness in competency-based education, where more frequent feedback to enhance resident skills is needed to facilitate progression along milestones and entrustable professional activities. Future research might evaluate the utility of this approach in faculty development and the extent to which skills are transferred to the workplace. We plan to follow preceptors who have engaged in simulations to identify how they have integrated these experiences into their work with residents in the clinical setting.

Our findings are limited by situating the study in 1 Canadian center with volunteer preceptors who focused on feedback around communication skills, and the data may not generalize to all feedback contexts and challenges. There were a limited number of resident scenarios, although the scenarios chosen were common and reflect those encountered in clinical medicine.[8] Our findings were shaped by the relatively short period of time allocated for feedback; however, this is similar to the timing available for feedback in simulated and clinical settings. Finally, in some qualitative studies, data collection continues to saturation. Our data set was finite, and saturation may not have been achieved.

Conclusion

In this study, preceptors expressed similar challenges in feedback conversations, including developing a shared agenda, navigating the degree of directedness, and balancing reinforcing and corrective feedback within a short period of time. Preceptors applied coaching, directing, mediating, and mentoring strategies to adapt their feedback to the specific needs of individual residents.

References

1. Carraccio C, Englander R, Van Melle E, et al. Advancing competency-based medical education: a charter for clinician-educators. *Acad Med*. 2016;91(5):645–649.
2. Lockyer J, Carraccio, Chan MK, et al. Core principles of assessment in competency-based medical education. *Med Teach*. 2017;39(6):609–616.
3. Watling C, Driessen E, van der Vleuten CP, et al. Learning culture and feedback: an international study of medical athletes and musicians. *Med Educ*. 2014;48(7):713–723.

4. Cohen ER, Barsuk JH, Moazed F, et al. Making July safer: simulation-based mastery learning during intern boot camp. *Acad Med*. 2013;88(2):233–239.
5. Ahlborg L, Weurlander M, Hedman L, et al. Individualized feedback during simulated laparoscopic training: a mixed-methods study. *Int J Med Educ*. 2015;6:93–100.
6. Myers JS, Jaipaul CK, Kogan JR, et al. Are discharge summaries teachable? The effects of a discharge summary curriculum on the quality of discharge summaries in an internal medicine residency program. *Acad Med*. 2006;81(suppl 10):5–8.
7. Cohen MM, Rose DK, See DA. Changing anesthesiologists' practice patterns. Can it be done? *Anesthesiology*. 1996;85(2):260–269.
8. Kogan JR, Conforti LN, Bernabeo EC, et al. Faculty staff perceptions of feedback to residents after direct observation of clinical skills. *Med Educ*. 2012;46(2):201–215.
9. Malterud K. Qualitative research: standards, challenges and guidelines. *Lancet*. 2001;358(9280):483–488.
10. Kitto SC, Chesters J, Grbich C. Quality in qualitative research. *Med J Aust*. 2008;188(4):243–246.
11. Gale NK, Heath G, Cameron E, et al. Using the framework method for the analysis of qualitative data in multi-disciplinary health research. *BMC Med Res Methodol*. 2013;13:117.
12. Braun V, Clarke V, Terry G. Thematic analysis. In: Rohleder P, Lyons AC, eds. *Qualitative Research in Clinical and Health Psychology*. London, UK: Palgrave Macmillan; 2015:95–113.
13. Lefroy J, Watling C, Teunissen PW, et al. Guidelines: the do's, don'ts and don't knows of feedback for clinical education. *Perspect Med Educ*. 2015;4(6):284–299.
14. Telio S, Ajjawi R, Regehr G. The "educational alliance" as a framework for reconceptualizing feedback in medical education. *Acad Med*. 2015;90(5):609–614.
15. Thompson G, Biro S. *Unleashed: The Leader As Coach*. New York, NY: Select Books Inc; 2006.
16. Kruger J, Dunning D. Unskilled and unaware of it: how difficulties in recognizing one's own incompetence lead to inflated self-assessments. *J Pers Soc Psychol*. 1999;77(6):1121–1134.
17. Fischer R, Ury W, Patton B. *Getting to Yes: Negotiating Agreement Without Giving In*. 3rd ed. New York, NY: Penguin Group Inc; 2011.
18. Patterson K, Grenny J, McMilan R, et al. Explore others' paths. In: *Crucial Conversations: Tools for Talking When Stakes Are High*. New York, NY: McGraw Hill; 2012:155–175.
19. Sambunjak D, Straus SE, Marusic A. A systematic review of qualitative research on the meaning and characteristics of mentoring in academic medicine. *J Gen Intern Med*. 2010;25(1):72–78.

Amanda Roze des Ordons, MD, MMEd, is Clinical Assistant Professor, Department of Critical Care Medicine, Division of Palliative Medicine, and Department of Oncology, Cumming School of Medicine, University of Calgary, Alberta, Canada; **Adam Cheng, MD,** is Associate Professor, Section of Emergency Medicine, Department of Paediatrics, Cumming School of Medicine, University of Calgary; **Jonathan Gaudet, MD, MSc,** is Clinical Assistant Professor, Department of Critical Care Medicine, Cumming School of Medicine, University of Calgary; **James Downar, MD, MHSc,** is Associate Professor, Interdepartmental Division of Critical Care Medicine, and Department of Medicine, Division of Palliative Care, Department of Family and Community Medicine, University of Toronto, Ontario, Canada; and **Jocelyn Lockyer, PhD,** is Professor, Department of Community Health Sciences, Cumming School of Medicine, University of Calgary.

Funding: This research was funded by a University of Calgary Continuing Medical Education and Professional Development Research Grant and a University of Calgary Taylor Institute Teaching and Learning Grant.

Conflict of interest: The authors declare they have no competing interests.

The authors would like to thank Dr Rachel Ellaway for her thoughtful review of the manuscript. The authors would also like to thank Dr James Huffman, Dr Jason Lord, Dr Kristin Fraser, Dr Ghazwan Altabbaa, Sue Barnes, Bobbi Johal, and Dr Gord McNeil for their contributions as workshop facilitators; Helen Catena for acting in the workshop trigger videos; and Simon Guienguere for his assistance in converting video to audio files.

Corresponding author: Amanda Roze des Ordons, MD, MMEd, Alberta Heath Services, South Health Campus Intensive Care Unit, 4448 Front Street SE, Calgary, Alberta T3M 1M4, Canada, 403.956.2113, amanda.rozedesordons@ucalgary.ca

Received August 13, 2017; revision received October 10, 2017; accepted October 23, 2017.