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TEACHING ROUNDS

Giving feedback in clinical settings

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Think about a clinical teaching session that you supervised recently. How much feedback did you provide? How useful do you think your feedback was?

Feedback is the cornerstone of effective clinical teaching.[1] Without feedback, good practice is not reinforced, poor performance is not corrected, and the path to improvement not identified. Though teachers believe that they give regular and sufficient feedback, often this is not how it is perceived by learners.[2-4]

Feedback is about providing information to students with the intention of narrowing the gap between actual and desired performance.[5 6] The purpose of giving feedback is to encourage learners to think about their performance and how they might improve.[1 2] Surveys of learners' preferences show that they want feedback that stimulates them to reflect on what they are doing.[7 8]

Feedback is a concept that is strongly theory based. From a behaviourist perspective, feedback has been shown to reinforce or modify behaviour.[9] However, feedback can also cause harm; negative feedback, if not carefully managed, can result in demotivation and deterioration in performance.[10] Cognitive theorists have shown that feedback helps learners to reconstruct knowledge, change their performance, and feel motivated for future learning.[11 12] Empirical evidence also shows that feedback enhances clinical performance. For example, in a recent systematic review, regular feedback significantly improved the clinical performance of consultant clinicians.[13]

Feedback and assessment are closely related educational activities. They overlap considerably in terms of purpose and methodology (box 1).

Barriers to giving feedback

Feedback does not happen for many reasons. Basically, providing constructive feedback is a difficult task. Most clinical teachers have received little or no instruction in giving feedback, and many believe that providing negative feedback is pointless because of a lack of resources to help the student to improve.[14] Teachers say that they fear damaging their relationship with learners and want to avoid undermining the learner's self esteem.[15] Corrective feedback can be awkward to communicate, and teachers may wish to avoid appearing critical, particularly in the presence of patients or medical colleagues.[16] But the negative effects of not seeking or giving feedback are considerable (box 2).[17]

How best to do it

The following eight general principles of effective feedback are derived from educational theory and research literature addressing feedback in the fields of education and personnel management.[18]

- Feedback should be viewed as a normal everyday component of the teacher-student relationship, so that both sides can expect it and manage its effects. Establishing this expectation and a comfortable working relationship may prevent defensive reactions among learners. Learners are much more likely to appreciate feedback if teachers indicate from the start that they expect and welcome feedback from students.
- Ensure that learners are clear about the criteria against which their performance will be assessed. If learners do not share some understanding of the teacher's conception of what a good performance looks like, feedback information may not make sense and it will be difficult for students to evaluate the gap between actual and desired performance.
- Give feedback on specific behaviours rather than on general performance. For example, a phrase such as "great job, well done!" may warm the heart, but it will not help the learner to improve performance nor guide future learning. On the other hand, feedback like "You waited for the patient to explain what she was afraid of before reassuring her. Well done" helps the learner focus on features of his or her performance that might be accentuated or changed in future.
- Feedback should be based on what was directly observed and should be phrased in non-judgmental language. For example, "I noticed that the patient winced when you inserted the speculum; did you take an opportunity to warm it up before inserting it?" is far more effective

This series provides an update on practical teaching methods for busy clinicians who teach. The series advisers are Peter Cantillon, senior lecturer in the department of general practice at the National University of Ireland, Galway, Ireland; and Yvonne Steinert, professor of family medicine, associate dean for faculty development, and director of the Centre for Medical Education at McGill University, Montreal, Canada.

Box 1 The relation between feedback and assessment

Assessment is often described in terms of being a continuum between "formative" and "summative" assessment. At one end of the continuum, formative assessment is essentially about providing feedback to students in order to support and enhance learning; at the other end, summative assessment is about measuring students' achievement with the purpose of grading or informing decisions about progression. The intent of formative assessment (and therefore feedback) is to share information about performance, whereas summative assessment is more about conferring judgment.

(and acceptable) than "That was awful, I think that you really shocked the patient while inserting that speculum; did you not warm it up before inserting it?" The first example encourages the trainee to reflect on performance and plan for improvement, whereas the second represents a verbal kick in the pants.

- For maximum effect, offer feedback at the time of an event or shortly afterwards.
- Feedback should be limited to one or two items only. Teachers are often tempted to point out all the faults that have been detected in a student's performance. However, a torrent of corrective feedback is more likely to overwhelm and demoralise the learner.
- Teacher led feedback should be balanced by deliberately seeking learners' own perceptions of their performance and their ideas for improvement. Encouraging learners to routinely appraise and correct their own performance helps them to develop the skills of lifelong learning, which are vital for autonomous practice.
- Feedback should lead to changes in the learner's thinking, behaviour, and performance. For this to occur, the learner needs to not only comprehend the feedback but should also know how to apply the feedback in practice. The feedback conversation should therefore include a discussion about how the learner plans to narrow the gap between actual and desired performance.

Feedback techniques

On the basis of these principles several approaches can be used to give feedback in clinical settings. In these examples, the feedback is delivered using non-judgmental language and is based on what the trainer observed.

Box 2 What happens if a teacher gives little or no feedback?

- Good performance is not reinforced and poor performance remains uncorrected
- If a trainer makes no comment, trainees may assume that all is well
- Trainees may have to rely on unreliable hearsay from colleagues and administrators to get the feedback they so desperately need
- Trainees may have to guess their level of competence, based on how well they are coping
- Trainees may have to learn by trial and error at patients' expense

On the job, informal feedback

Informal feedback should be specific: it should describe what learners do (their behaviours) so that they know what aspect of their performance they should reflect on. This should encourage planning to improve next time. An example: "Well done, your differential diagnosis list seemed very appropriate for Mr Jones's presentation."

The feedback sandwich

Teachers are more likely to give corrective feedback if they can develop an approach that is unlikely to embarrass or cause offence. One such approach is the so called "feedback sandwich"—reinforcing and negative feedback are offered in a few sentences, for example:

Reinforcing statement: "I like the way that you systematically examined Mr Smith's abdomen using the flat of your hand."

Corrective comment: "I noticed that you did not look at Mr Smith's face as you palpated to check whether you were causing him any discomfort."

Reinforcing statement: "You finished by summarising your findings accurately and succinctly, well done!"

The commonest mistake that teachers make using a feedback sandwich is to use the word "but" before introducing the corrective comment. Students quickly learn to ignore the positive comments and focus on what comes after the "but." Another tendency of teachers when using the feedback sandwich, especially in a busy clinic, is to concentrate on the positive, leaving less time to discuss improvement in the areas that truly need attention. It is important not to leave the student with a false positive impression.

The power balance in a feedback sandwich clearly favours the teacher. However, feedback should ideally be a "conversation about performance" rather than a one way transmission of information. Learners should be encouraged to express their own views about their performance, as well as listening to the observations of the teacher. By describing and commenting on their own performance, students are learning how to critically assess and modify their own behaviour as they develop into independent practitioners.

The Pendleton model

Pendleton described a structured approach for establishing a conversation about performance between a teacher and a student.[19] It is a modification of the feedback sandwich in which the teacher's comments are preceded by the learner's observations. The Pendleton model usually consists of four steps. In step 1, the learner states what was good about his or her performance; in step 2, the teacher states areas of agreement and elaborates on good performance; in step 3, the learner states what was poor or could have been improved; in step 4, the teacher states what he or she thinks could have been improved.

The Pendleton technique lends itself to discussions about performance after the event—in the coffee room or in an office, rather than at the bedside. It allows for a

more detailed review of performance than the feedback sandwich, and encourages the learner to become better at recognising what should be maintained or developed about their own performance. As with the feedback sandwich, though, this approach can create a somewhat artificial structure that may prevent the teacher and learner "getting to the heart of the matter." The essential feedback conversation is about what the learner feels he or she didn't do well and wants to work on; the deficits in performance that the learner did not detect; and how the learner plans to deal with the identified performance deficits.

The reflective feedback conversation

We therefore suggest a third, modified interactive, feedback approach, which focuses on the essential goals of feedback—to encourage learners to reflect on their actions and to motivate subsequent improvement in performance.[20 21] This method (box 3) is similar to Pendleton's teacher-learner "conversation" but places greater emphasis on the learner's own ability to recognise performance deficits and includes a discussion about how the learner plans to improve. It is also similar to agenda led feedback described as part of the widely used Calgary Cambridge approach to teaching communication and clinical skills.[22] The reflective feedback conversation approach encourages the development of the learners' ability to self assess and leads to a shared view of what the agreed improvements will look like. With practice, this strategy can be done quickly and can be routinely incorporated into clinical teaching and learning.

Conclusion

Feedback is fundamental to effective clinical teaching and supervision of learners. Student surveys show that feedback is all too often either absent or inadequate in teacher-learner discussions. Without feedback, good performance is not reinforced and poor performance may be repeated at the expense of patients or colleagues. Properly handled, feedback enhances the teacher-learner relationship and leads to beneficial changes in learners' behaviour. Clinical teachers should regard the art of giving feedback as a critical skill to be acquired through repeated practice and augmented by reflection on their own performance.

Box 3 Reflective feedback conversation

The teacher asks the learner to share any concerns he/she may have about the recently completed performance: "Let's review the surgery. Is there anything you have concerns about, that perhaps didn't go as well as you had hoped?"

The learner describes concerns and what they would have liked to have done better: "I wasn't happy with tumour resection; I found it very hard to prize it off the posterior wall of the bladder and it bled a lot."

The teacher provides views on the performance of concern and offers support: "It was clearly difficult for you to create a plane of cleavage between the tumour and the bladder wall. I find this difficult too."

The teacher asks the learner to reflect on what might improve the situation: "Is there anything you can think of that might work better, make it easier, or improve it for next time?"

The student responds: "Well I was a bit anxious and perhaps because of that I was rushing and working too quickly."

The teacher elaborates on the trainee's response, correcting if necessary, and checks for the trainee's understanding: "Yes, that's a good point. I would encourage you to slow down at times like these and that allows you to be even more delicate in your approach. Another suggestion is to use a blunt dissection technique rather than a scissors dissection. Does that make sense to you?"

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