**The feedback game: missed opportunities in workplace based learning**

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Workplace based learning in which students ‘observe, rehearse and contribute to authentic patient care activities’ provides much of the clinical training in undergraduate medical programmes1. When more than one learner is placed in the same clinical environment, there are opportunities for them to provide feedback on each other’s performance. Peer feedback, by virtue of its reciprocal nature, offers a different experience to feedback encounters between preceptor and student.

In this issue of *Medical Education* XXX, et al. provide an interesting introduction to the branch of Economics known as game theory and discuss how the principles may be applied to medical education2. They describe four examples of non-zero sums games, in which learners work collaboratively but each seek to maximize their personal rewards whilst simultaneously minimizing their individual risk.

Game theory provides an interesting lens through which to consider the missed opportunities in peer feedback in workplace based learning.

If it has been decided that feedback between the learners is to take place, whether this be a decision by the learners or one imposed upon them by programme coordinators, a decision regarding the honesty of the feedback needs to be made. The risks and potential benefits of providing feedback on peers’ performance must be considered. Each learner would have to decide in giving their feedback whether to: a) give only reassurance and positive feedback, or b) give feedback that includes critical comments and suggestions for improvements.

*Rewards in providing critical feedback*

Given the intent of feedback is to improve learners’ performance3, the main reward in providing critical feedback is the development of one’s peer. Indeed, without the provision of critical feedback, mistakes in the clinical environment can go unnoticed, leading to shortfalls in clinical competence4. Furthermore, there is evidence that giving critical feedback is more effective alone than in combination with praise or praise alone.5

These benefits notwithstanding, the provision of critical feedback to a peer is not without its risks to the feedback provider.

*Risks in providing critical feedback*

Firstly providing critical feedback is more time consuming than simple reassurance, and therefore incurs an opportunity cost; possibly reducing the time for the feedback provider themselves to practice the clinical task.

Secondly, and arguably more significantly, there is a very real risk of damaging the relationship by providing negative comments. While the significance of the relationship in any feedback encounter should not be underestimated, it becomes more complex in peer feedback where the relationship between the participants are often social as well as educational. Whilst this risk can be minimized in informal feedback between peers in clinical workplaces, it may be a significant barrier to critical feedback if provided in the presence of a supervisor or if submitted in writing (e.g. multi source feedback).

Furthermore, in providing feedback to peers one has to expose their own knowledge on the topic, and in doing so may reveal knowledge gaps or misunderstandings. While the clarification of these misunderstandings through dialogue would be beneficial to the feedback provider, this poses a risk to their ego by exposing them to their peer.

Finally, there is a risk of causing a negative reaction to the feedback by the recipient; feedback that does not concord with the recipients’ self-perception is known to limit the acceptability of feedback and resistance to future behavioral change.6

*Rewards in providing reassurance*

The only rewards in providing reassurance are the avoidance of the risks associated with providing critical feedback and reinforcing positive aspects of a clinical performance.

*Risks in providing reassurance*

The main risk in providing reassurance only is that mistakes will go uncorrected and learners may develop bad habits, which may subsequently impact negatively on patient care.4 There is also a risk that the learner will not perform as well in assessments. While in the context of peer feedback neither of these outcomes directly effect the feedback provider, they are likely to be undesired outcomes.

*Balancing risks and rewards between critical feedback and reassurance*

As in Game Theory, the players’ strategic decisions will tend towards maximizing rewards while minimizing risks. In this scenario that will mean that despite the potential for greater rewards with critical feedback these will be outweighed by the associated risks, resulting in both students providing each other reassurance and avoiding critical feedback on each other’s performance. This is seen in practice with students’ avoidance of being critical of their peers in team-based learning and multi-source feedback7. This represents a significant missed opportunity for learners’ development. Considering ‘observations are the currency of feedback’4 and learners frequently observe their colleagues practicing in clinical workplaces, they are a rich source of feedback that should be utilized. In doing so, in order to encourage critical feedback for the development of learners, the risks associated need to be mitigated where possible. This could be achieved by ensuring peer feedback is only used formatively, by instilling a culture of development by feedback, and by ensuring sufficient time is available for students to practice taking histories and performing clinical examinations while observed by their peers in clinical settings.

**References**

1. Dornan T, Tan N, Boshuizen H, et al. How and what do medical students learn in clerkships? Experience based learning (ExBL). *Adv Heal Sci Educ*. 2014;19(5):721-749. doi:10.1007/s10459-014-9501-0.

2. Unknown. Game Theory and Strategy in Medical Training. *Med Educ*. 2016.

3. Van De Ridder JMM, Stokking KM, McGaghie WC, Ten Cate OTJ. What is feedback in clinical education? *Med Educ*. 2008;42(2):189-197. doi:10.1111/j.1365-2923.2007.02973.x.

4. Ende J. Feedback in clinical medical education. *J Amer Med Assoc*. 1983;250(6):777-781.

5. Hattie J, Timperley H. The power of feedback. *Rev Educ Res*. 2007;.77(1):16-17. doi:10.3102/003465430298487.

6. Sargeant J, Mann K, Sinclair D, der Vleuten C, Metsemakers J. Understanding the influence of emotions and reflection upon multi-source feedback acceptance and use. *Adv Heal Sci Educ*. 2008;13(3):275-288. doi:10.1007/s10459-006-9039-x.

7. Van Rosendaal GMA.., Jennett PA. . Resistance to Peer Evaluation in an Internal Medicine Residency. *Acad Med*. 1992;67(1):63.

**Quotes:**

*“Peer feedback, by virtue of its reciprocal nature, offers a different experience to feedback encounters between preceptor and student.”*

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