

How to become a better clinical teacher: A collaborative peer observation process

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Abstract

Background: Peer observation of teaching (PoT) is most commonly done as a way of evaluating educators in lecture or small group teaching. Teaching in the clinical environment is a complex and hectic endeavor that requires nimble and innovative teaching on a daily basis. Most junior faculty start their careers with little formal training in education and with limited opportunity to be observed or to observe more experienced faculty.

Aim: Formal PoT would potentially ameliorate these challenges.

Methods: This article describes a collaborative peer observation process that a group of 11 clinician educators is using as a longitudinal faculty development program.

Results: The process described in this article provides detailed and specific teaching feedback for the observed teaching attending while prompting the observing faculty to reflect on their own teaching style and to borrow effective teaching techniques from the observation.

Conclusion: This article provides detailed examples from written feedback obtained during collaborative peer observation to emphasize the richness of this combined experience.

Introduction

Doctors-in-training learn to practice medicine by taking care of patients in supervised clinical settings. Their clinical teachers are experienced physicians with similar training, but one must ask: where did these clinician educators learn to teach? In the past, it was presumed that having knowledge of the content meant you could teach it, as the old adage goes “see one, do one, teach one”. Few physicians receive formal degrees in education and most learn on-the-job, nearly always in isolation (Lowry 1993; MacDougall & Drummond 2005). A fortunate few clinician educators are “naturals” at teaching and they have mastered the balance between cognitive and non-cognitive teaching skills. Truly good clinical teachers are able to “read” multiple trainees at once. They engage an entire team of learners at various levels of training and somehow bring out the best in each member to create an exciting interactive environment of thinking and learning while still controlling the teaching session (Wright et al. 1998). A recent review argued that two-thirds of the important traits found in outstanding clinical teachers of medicine are non-cognitive (Sutkin et al. 2008). These traits include relationship skills, personality types, non-verbal communication, and emotional states. When compared to cognitive traits, non-cognitive traits may be even more difficult for a teacher to develop.

Much has been written about faculty development initiatives to improve teaching effectiveness. However, these sessions often focus on educational theory and may lack practical applicability (Cooke et al. 2006; Steinert et al. 2006).

Practice points

- Collaborative peer observation encourages reflection by both the observed teacher and the observing teacher.
- Detailed and specific observations are essential for effective peer observation.
- Major areas for feedback on teaching include, but are not limited to the following: question strategies, physical examination instruction, engagement of multiple learner levels, learner-focused teaching, and teaching efficiency.

A recent study of 10 accomplished clinical teachers suggested that they acquired teaching skills by observing others, reflecting on the experience, and then practicing those techniques that worked well (MacDougall & Drummond 2005). The authors concluded that teachers improve by reflecting on their teaching, a point well-known to the non-medical education community and now gaining support in medical education (Nias 1996; Pinsky & Irby 1997; Martin & Double 1998; Pinsky et al. 1998; Parsell & Bligh 2001).

One technique that has been used to promote observation and reflection in non-medical education is peer observation of teaching (PoT). There are several models of PoT, but the two most commonly discussed are the Evaluation Model and the Peer-Collaboration Model (Siddiqui et al. 2007). In the Evaluation Model, senior faculty or educational experts are trained to observe teachers to ensure quality teaching, identify problems, and evaluate for promotion. In the

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Peer-Collaboration Model co-teachers observe each other to create a discussion about teaching through mutual reflection.

PoT is not a new idea to clinical medicine. Irby published a PoT study in 1983 and several articles involving PoT have been written since then (Irby 1983a, b; Horowitz et al. 1998; Snell et al. 2000; Beckman et al. 2003). However, these studies employed the Evaluation Model using multi-itemed check-lists with Likert-scales and trained observers to assess teachers' skills. This type of PoT has not been widely adopted by the academic medicine community, possibly because its evaluative nature is not conducive to personal teaching development. It is not clear that an evaluative and grading process would provide a safe environment for the key elements of reflection and feedback (Nias 1996; MacDougall & Drummond 2005). In addition, it is difficult to interpret the meaning of a score on a Likert-scale for any particular teaching technique or skill and then improve on it. Finally, the observer of the process must focus on a checklist rather than the observation itself and thereby miss his or her own opportunity for learning. The natural observations and reflections of the *observer* may be the key benefits of PoT in developing both the observer and the observed teacher. Beckman suggested this after 100 person-hours of direct observation on bedside teaching (Beckman 2004). He found that direct observation ranked among his most influential educational experiences. He recognized the difficulty in detaching oneself from the medicine content to focus on teaching and that by doing so a myriad of new teaching styles and techniques exposed themselves. Observing a peer teach will create self-comparison and thereby lead to reflection. A clinician educator's training, background, and prior experiences will consciously and unconsciously shape what he or she is capable of seeing (Eva & Regehr 2008).

Previous reports of PoT in the clinical teaching environment are limited to short-term observations designed to determine the characteristics of outstanding teachers (Irby 1983b; Irby 1992; Beckman 2004) or to provide formal evaluation of teachers. As a newly formed group of clinician educators, we decided to use PoT as a longitudinal faculty development project that encouraged observations by and for each member of the group. This project is now in its fifth year and affords an opportunity for reflection on PoT as a faculty development tool. Our faculty group has now grown to 11 clinician-educators. In addition, as our experience has grown, we have provided peer observation for novice (Chief Resident) and very experienced clinical teachers (more than 35 years of experience) outside our group. We will describe the process in detail and then comment on specific observations drawn from more than 40 written narratives completed after each peer observation.

The peer observation process

Peer observations occur during routine attending rounds on an inpatient ward service. The ward team typically consists of 2 attending physicians ("co-attendings"), 1 or 2 junior residents, 4 interns, and 1–3 medical students who care for 18–24 patients on a medicine ward. During the daily 2 h attending-led teaching rounds, the team generally focuses on the presentation and discussion of newly admitted patients, ranging from 1

to 10 in number. The peer observer is a clinician-educator who is off-service at the time of the observation. There is no formal training of the observer or detailed check-list used during the observation as the intent is to capture the essence of teaching rounds in their "natural state". However, general areas for observation are suggested: observers are asked to ignore the clinical content and note areas, such as team dynamics, bedside teaching techniques, teaching moments, feedback given, and specific teaching styles and techniques used. The observer is encouraged to comment on time management, overall engagement of the team in the discussion of patients, and non-cognitive aspects of teaching. In addition, the observer and observed faculty do discuss beforehand if there is anything specific for which the faculty being observed desires feedback.

Peer observers join the team at the beginning of rounds and introduce themselves and their purpose to all team members. The observer makes it clear that he is not present to evaluate residents or students on the team, but simply to focus on observing the teaching methods and techniques employed by the attending staff. Following introductions, the peer observer remains silent and in the background for the remainder of rounds, taking notes on teaching, but not contributing to the clinical or didactic discussion. Observations occur during all aspects or activities of attending rounds, including conference room discussions, hallway team discussions, and bedside encounters.

Shortly after the observation session, the observer provides verbal feedback to the observed attending. This session generally takes the form of recounting specific examples from rounds that represent teaching skills and techniques that were perceived as effective as well as offering alternative methods and potential opportunities for improvement. Following verbal feedback, the observer writes a narrative, structured summary of the experience using the outline in Table 1. Written comments are provided to the observed attending and all reports are placed in a shared drive accessible to all faculty who participate. These can be

Table 1. Basic template for written summary of peer observation.

Major topic	Specific components
1. Identifying data	Observer Who is being observed (attending) Setting (team, ward) Date
2. Overall environment	Describe tone and atmosphere Number of patients presented and timing
3. Cases presented	One or two sentences to describe the case, who presented it and where. Observations on: A. Teaching moments and techniques used B. Feedback given and when C. Suggestions of alternative ways to make teaching points, structure the discussion, or organize bedside rounds. Mention of other possible teaching points that could have been made with the caveat that time is limited
Final points	What worked well and suggestions for alternative ways to approach teaching during the observed rounds

referenced for educational purposes and serve as permanent documentation of the groups' commitment to faculty development.

Analysis of the peer observation process

In order to better understand the potential impact of this type of PoT as a faculty development process, two of the authors (VC and KF) independently reviewed all available written narratives in order to identify common themes in the reports of observations. Through content analysis, the top five major

areas that proved to be critical to effective clinical teaching were identified: question strategies, physical examination instruction, engagement of multiple learner levels, learner-focused teaching, and teaching efficiency (time management). Disagreements on selection of these areas were resolved through consensus and with input from a third author (DH) (Thomas 2006). Table 2 provides verbatim examples in each of these areas drawn from the written narratives in order to provide an understanding of the level of detail in observation and feedback that we have found most effective for teaching development.

Table 2. Examples from written feedback following peer observation.

Teaching issue	Examples
Question strategies	<p>A patient was admitted with a marked hyperosmolar state (Na 147, glucose 800's). The attending asked "What is the normal blood volume?" After a pause, she quickly supplied her own answer and moved on. This effectively cut off a learning topic. Instead this could have been addressed by asking 'Where is volume stored in the body?' and drawing a diagram of the various compartments. This analysis would give the learner a broader view than a simple fact about blood volume."</p> <p>An 80-year-old woman with lytic changes in her vertebral body was admitted with leg weakness. The observer wrote: "The attending used a great teaching technique in the discussion by asking two hypothetical questions. 'If this patient had a cord compression from her vertebral lesion, what would you do?' This is excellent. The hypothetical must be a plausible scenario for the presented patient and in this case it clearly was. The second question was, 'If this patient had an epidural abscess and cord compression would you give her steroids?' This is not as directly tied to the thinking about the patient herself, but is close enough to still engage. Good discussion followed, including a brief polling of opinions."</p>
Physical examination instruction	<p>"Four stethoscopes were placed on the chest simultaneously. Perfectly fine, but the key component is to ask, 'What did you hear?' beginning with the student. This did not occur at the bedside. Hallway discussion indicated a systolic murmur. No way to know if everyone heard it unless the inquiry occurred at the bedside when the learners could re-listen."</p> <p>"The attending led the exam. Excellent in that she asked the co-examiner for findings, "Do you guys hear anything?" Might alter this slight to "What do you hear?" as this more neutral question forces the learner to take a stand even if it is normal, instead of a question that might imply that the attending didn't hear anything abnormal and would tend to damp down the learner response if they had heard abnormality."</p>
Engagement of multiple learner levels	<p>"An intern presented an 89 year old patient with peri-aortic lymphadenopathy and a vertebral body lytic lesion. After returning to the hallway, the intern gave his differential diagnosis, explained his thinking and plans for next step. The attending praised the intern with "I have nothing to add." The observer commended the positive reinforcement to the intern about a job well done, but noted "the discussion of problems focused solely on the admitting intern. This left the three interns contributing nothing to the discussion. This is difficult as one wants to allow the admitting intern to demonstrate his or her thinking. However, one might approach this in the following manner: Say to the admitting intern, 'I realize you've had a chance to think about the patient overnight, but I'd like to first obtain the thoughts of the team.' Get the team involved in a discussion and then return to the admitting intern with 'How did we do or was this how you put it together?' The intern can expand if he wants and is still allowed to shine."</p> <p>"An elderly woman was admitted with cough and shortness of breath and suspected congestive heart failure (CHF). Although the history and case presentation were consistent with a presumed diagnosis of CHF, the physical exam and further questioning of the patient did not support this. The attending invited the team to re-evaluate the current situation by asking, 'Does this lady look like she is in heart failure?' He moved up the ladder, starting with the students, then interns and then resident to get their opinions. Each team member had to "put their money down" and no one was singled out. This received attention from all team members and became a great chance for the whole team to engage in the discussion and presentation of heart failure."</p>
Learner-focused teaching	<p>"Overall the tone of rounds was relaxed. The interns, resident and medical student appeared comfortable with asking questions during the discussion. The post-call intern was given the stage without interruption and visibly grew more confident during rounds as WC checked in with him at each bedside encounter asking, 'Was there anything else you wanted us to check?' This was a great teaching technique for it showed respect for the intern for all the work he did overnight and acknowledged that the team was following his lead."</p> <p>"While examining a complex patient with peripheral vascular disease, one of the sub-interns noted a rash on the patient's legs and inquired about the rash. The attending halted the other conversation in the room and asked the sub-intern what he thought about the rash and how the presence of the rash might alter his thoughts regarding the differential diagnosis in this case. This was fantastic as it totally directed the discussion around a learner focused observation and also helped flesh out a more thorough thought process from the team."</p>
Teaching efficiency (time management).	<p>"Although a good teaching point about acute adrenal insufficiency was being made, it did not seem appropriate to this particular patient, and would be better reserved for a situation where adrenal insufficiency was a real concern, or inserted as a hypothetical during a day with fewer admissions."</p> <p>"At the bedside, the resident took the lead and re-asked almost the entire history presented by the intern. This took up a lot of time and is one area that might be looked at to create more time efficiency. What are good techniques to interrupt the resident without undermining them? In general, after hearing the case presentation from the intern or student, the questions to the patients by the more senior members of the team should either serve to emphasize the important issues raised or gather new and vital history which might affect patient management."</p>

Discussion

In order to give meaningful feedback and for both the observer and the observed attending to reflect productively on the teaching process, it is essential that observations be specific and detailed (Ende 1983). Table 2 provides a sense of the detail required. This level of detail has also allowed us to dissect individual components of the clinical teaching encounter. For example, we observed that new educators tend to ask fact and knowledge based questions (who, what, where), mid-career educators add more application and analysis questions (how and why), while senior teachers ask synthesis type questions (what would you predict?). Of note, regardless of the level of experience, all clinician educators struggled with the timing and appropriateness of their questions (Pinsky & Irby 1997). Talking about question strategies at a faculty development session is straightforward. On the wards it can be difficult to think of the appropriate level of question in the moment. Our group found great value in having questions reflected back by peer observers and in watching others ask questions in real-time.

One of the areas in which all clinician educators seem to struggle with is how best to engage different levels of learners (Hoellein et al. 2007). After the case presentation of a patient, it is easy to end up in a one-on-one discussion with the admitting intern while the rest of the team becomes passive. Through being observed and observing, techniques to engage the whole team increased in frequency among all clinician educators. A technique to engage the entire team that appeared with more frequency in the narratives during the 3 years of observation might be termed "Up the Ladder" and is exemplified in one of the comments included in Table 2. Without observation, it is unclear if any of this technique would have been shared and so readily adopted (Eva & Regehr 2008).

Through review of the written narratives, we have found that our group has become increasingly detailed and sophisticated in the observation of teaching techniques and behaviors. The narratives suggest rapid and consistent development of junior faculty who appear to have benefited both from observing and being observed. We are very skeptical that this type of rapid development would have been accomplished through the more traditional evaluation model. Interestingly, senior clinical teachers have also identified new teaching techniques to incorporate in their teaching repertoire through collaborative peer observation. As one senior clinician observed, "I've been teaching for thirty-five years and this is the first time I've ever been observed by a peer focused on my teaching role. Thank you. I might have been doing this wrong for thirty years, so it's good to know I'm doing some things right along with things I can improve." After all, the second best predictor of physician incompetence is working in isolation (Caulford et al. 1994).

Conclusion

The development of a good clinical teacher is a complex process. Knowing the benefits and impact of an effective educator, dedicated clinician educators are eager to improve,

but how best to do this? (Griffith et al. 1997) Since most clinician educators teach in isolation, their teaching techniques are based on prior experiences from the finite number of teachers they were exposed to as learners. Although textbooks and faculty development courses may provide the theory of teaching and adult learning, actual clinical teaching practice is far more complex. Since the literature on personal self-assessment reports that physicians do this poorly, we feel that the peer observation process we have outlined provides an effective method to explore the nearly infinite approaches to teach in the complex clinical environment (Eva & Regehr 2008). The ability to step back from medicine and observe a teaching encounter opens up a vast array of teaching techniques from which to borrow and learn. In PoT, while the observer benefits from feedback and sharing one's reflection with peers, our experience would suggest that it is the observer who benefits even more from his or her own observations and reflections arising from self-comparison and the composing of a narrative summary of the experience.

Our 5 years of peer collaboration have made a lasting impact on the growth and professional development of each of us as clinician educators. There is no magic formula for developing both the cognitive and non-cognitive skills of teaching but PoT as a collaboration model, rather than an evaluative model, provides a structure in which to learn and grow. With more academic medical centers developing Clinician Educator tracks, the process of peer observation and collaboration could be offered as a step in both faculty development and promotion (Levinson & Rubenstein 2000).

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