Feedback and Education in Dermatology Residency

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RESIDENT **PEARLS**

- Feedback between dermatology trainees and their educators should be provided in a private and constructive way soon after the observation was performed.
- One method to improve education and feedback in a residency program is a specialty course to improve giving and receiving feedback by both residents and attending physicians.

Feedback and education are the cornerstones to medical education. Residents can provide feedback and teach medical students and interns while both providing and receiving feedback from fellows and attending physicians. Although there is no correct method of feedback, when and how feedback is delivered can affect its effectiveness. Methods have been outlined to make feedback more meaningful and impactful, most of which are sourced from both published teaching methods and expert opinion. Feedback also is reciprocal, with all levels of providers giving feedback to each other to best improve the field of dermatology.

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A dermatology resident has more education and experience than a medical student or intern but less than a fellow or attending physician. Because of this position, residents have a unique opportunity to provide feedback and education to those with less knowledge and experience as a teacher and also to provide feedback to their more senior colleagues about their teaching effectiveness while simultaneously learning from them. The reciprocal exchange of information—from patients and colleagues in clinic, co-residents or attendings in lectures, or in other environments such as pathology at the microscope or skills during simulation training sessions—is the cornerstone of medical education. Being able to give effective feedback while also learning to accept it is one of the most vital skills a resident can learn to thrive in medical education.

The importance of feedback cannot be understated. The art of medicine involves the scientific knowledge needed to treat disease, as well as the social ability to educate, comfort, and heal those afflicted. Mastering this art takes a lifetime. The direct imparting of knowledge from those more experienced to those learning occurs via feedback. In addition, the desire to better oneself leads to more satisfaction with work and improved performance.[1] The ability to give and receive feedback is vital for the field of dermatology and medicine in general.

Types and Implementation of Feedback

Feedback comes in many forms and can be classified via different characteristics such as formal vs informal, written vs spoken, real time vs delayed, and single observer vs pooled data. Each style of feedback has positive and negative aspects, and a feedback provider will need to weigh the pros and cons when deciding the most appropriate one. Although there is no one correct way to provide feedback, the literature shows that some forms of feedback may be more effective and better received than others. This can depend on the context of what is being evaluated.

Many dermatology residencies employ formal scheduled feedback as part of their curricula, ensuring that residents will receive feedback at preset time intervals and providing residency directors with information to assess improvement and areas where more growth is needed. The Accreditation Council for Graduate Medical Education provides a reference for programs on how to give this formal standardized feedback in *The Milestones Guidebook*.[2] This feedback is a minimum required amount,

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with a survey of residents showing preference for frequent informal feedback sessions in addition to standardized formal feedback.[3] Another study showed that residents want feedback that is confidential, in person, shortly after experiences, and specific to their actions.[4] Medical students also voiced a need for frequent, transparent, and actionable feedback during protected, predetermined, and communicated times.[5] Clearly, learners appreciate spoken intentional feedback as opposed to the traditional formal model of feedback.

Finally, a study was performed analyzing how prior generations of physician educators view millennial trainees.[6] Because most current dermatology residents were born between 1981 and 1996, this study seemed to pinpoint thoughts toward teaching current residents. The study found that although negative judgments such as millennial entitlement ($P<.001$), impoliteness ($P<.001$), oversensitivity ($P<.001$), and inferior work ethic ($P<.001$) reached significance, millennial ideals of social justice ($P<.001$) and savviness with technology ($P<.001$) also were notable. Overall, millennials were thought to be good colleagues ($P<.001$), were equally competent to more experienced clinicians ($P<.001$), and would lead medicine to a good future ($P=.039$).[6]

Identifying and Maximizing the Impact of Feedback

In addition to how and when to provide feedback, there are discrepancies between attending and resident perception of what is considered feedback. This disconnect can be seen in a study of 122 respondents (67 residents and 55 attendings) that showed 31% of attendings reported giving feedback daily, as opposed to only 9% of residents who reported receiving daily feedback.[4] When feedback is to be performed, it may be important to specifically announce the process so that it can be properly acknowledged.[7]

Beach[8] provided a systematic breakdown of clinical teaching to those who may be unfamiliar with the process. This method is divided into preclinic, in-clinic, and postclinic strategies to maximize learning. The author recommended establishing the objectives of the rotation from the teacher's perspective and inquiring about the objectives of the learner. Both perspectives should inform the lessons to be learned; for example, if a medical student expresses specific interest in psoriasis (a well-established part of a medical student curriculum), all efforts should be placed on arranging for that student to see those specific patients. Beach[8] also recommended providing resources and creating a positive supportive learning environment to better utilize precious clinic time and create investment in all learning parties. The author recommended matching trainees during clinic to competence-specific challenges in clinical practice where appropriate technical skill is needed. Appropriate autonomy also is promoted, as it requires higher levels of learning and knowledge consolidation. Group discussions can be facilitated by asking questions of increasing levels of difficulty as experience increases. Finally, postclinic feedback should be timely and constructive.[8]

One technique discussed by Beach[8] is the "1-minute preceptor *plus*" approach. In this approach, the teacher wants to establish 5 "micro-skills" by first getting a commitment, then checking for supportive evidence of this initial plan, teaching a general principle, reinforcing what was properly performed, and correcting errors. The *"plus"* comes from trying to take that lesson and apply it to a broader concept. Although this concept is meant to be used in a time-limited setting, it can be expanded to larger conversations. A common example could be made when residents teach rotating medical students through direct observation and supervision during clinic. In this hypothetical situation, the resident and medical student see a patient with erythematous silver-scaled plaques on the elbows and knees. During the patient encounter, the student then inquires about any personal history of cardiovascular disease, diabetes mellitus, and hypertension. After leaving the examination room, the medical student asserts the diagnosis is plaque psoriasis because of the physical examination findings and distribution of lesions. A discussion about the relationship between psoriasis and metabolic syndrome commences, emphasizing the pathophysiology of type 1 helper T-cell–mediated and type 17 helper T-cell–mediated inflammation with vascular damage and growth from inflammatory cytokines.[9] The student subsequently is praised on inquiring about relevant comorbidities, and a relevant journal article is retrieved for the student's future studies. Teaching points regarding the Koebner phenomenon, such as that it is not an instantaneous process and comes with a differential diagnosis, are then provided.

Situation-Behavior-Impact is another teaching method developed by the Center for Creative Leadership. In this technique, one will identify what specifically happened, how the learner responded, and what occurred because of the response.[10] This technique is exemplified in the following mock conversation between an attending and their resident following a challenging patient situation: "When you walked into the room and asked the patient coming in for a follow-up appointment 'What brings you in today?,' they immediately tensed up and responded that you should already know and check your electronic medical record. This tension could be ameliorated by reviewing the patient's medical record and addressing what they initially presented for, followed by inquiring if there are other skin problems they want to discuss afterwards." By identifying the cause-and-effect relationship, helpful and unhelpful responses can be identified and ways to mitigate or continue behaviors can be brainstormed.

The Learning Process

Brodell et all[11] outlined techniques to augment the education process that are specific to dermatology. They

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recommended learning general applicable concepts instead of contextless memorization, mnemonic devices to assist memory for associations and lists, and repetition and practice of learned material. For teaching, they divided techniques into Aristotelian or Socratic; Aristotelian teaching is the formal lecture style, whereas Socratic is conversation based. Both have a place in teaching—as fundamental knowledge grows via Aristotelian teaching, critical thinking can be enhanced via the Socratic method. The authors then outlined tips to create the most conducive learning environment for students.[11]

Feedback is a reciprocal process with information being given and received by both the teacher and the learner. This is paramount because perfecting the art of teaching is a career-long process and can only be achieved via correction of oversights and mistakes. A questionnaire-based study found that when critiquing the teacher, a combination of self-assessment with assessment from learners was effective in stimulating the greatest level of change in the teacher.[12] This finding likely is because the educator was able to see the juxtaposition of how they think they performed with how students interpreted the same situation. Another survey-based study showed that of 68 attending physicians, 28 attendings saw utility in specialized feedback training; an additional 11 attendings agreed with online modules to improve their feedback skills. A recommendation that trainees receive training on the acceptance feedback also was proposed.[13] Specialized training to give and receive feedback could be initiated for both attending and resident physicians to fully create an environment emphasizing improvement and teamwork.

Final Thoughts

The art of giving and receiving feedback is a deliberate process that develops with experience and training. Because residents are early in their medical career, being familiar with techniques such as those outlined in this article can enhance teaching and the reception of feedback. Residents are in a unique position, as residency itself is a time of dramatic learning and teaching. Providing feedback gives us a way to advance medicine and better ourselves by solidifying good habits and knowledge.

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