

Resident Perceptions of Giving and Receiving Peer-to-Peer Feedback

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Abstract

Background Peer feedback is increasingly being used by residency programs to provide an added dimension to the assessment process. Studies show that peer feedback is useful, uniquely informative, and reliable compared to other types of assessments. Potential barriers to implementation include insufficient training/preparation, negative consequences for working relationships, and a perceived lack of benefit.

Objective We explored the perceptions of residents involved in peer-to-peer feedback, focusing on factors that influence accuracy, usefulness, and application of the information.

Methods Family medicine residents at the University of Michigan who were piloting an online peer assessment tool completed a brief survey to offer researchers insight into the peer feedback process. Focus groups were conducted to explore residents' perceptions that are most likely to affect giving and receiving peer feedback.

Results Survey responses were provided by 28 of 30 residents (93%). Responses showed that peer feedback provided useful (89%, 25 of 28) and unique (89%, 24 of 27) information, yet only 59% (16 of 27) reported that it benefited their training. Focus group participants included 21 of 29 eligible residents (72%). Approaches to improve residents' ability to give and accept feedback included preparatory training, clearly defined goals, standardization, fewer and more qualitatively oriented encounters, 1-on-1 delivery, immediacy of timing, and cultivation of a feedback culture.

Conclusions Residents perceived feedback as important and offered actionable suggestions to enhance accuracy, usefulness, and application of the information shared. The findings can be used to inform residency programs that are interested in creating a meaningful peer feedback process.

Editor's Note: The online version of this study contains the University of Michigan Family Medicine Peer Feedback Tool and the resident survey used in the study.

Introduction

Peer feedback can be useful and uniquely informative to medical residents, particularly in the development of

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professionalism, teamwork, and interpersonal skills.¹⁻³ Various forms of peer assessment and feedback are incorporated into residency training, with no agreed-upon best method for delivery.⁴⁻⁶ Survey findings indicate that reliable and consistent peer ratings are attainable, with reliability of peer feedback comparing favorably to assessments provided by clinical faculty and staff.^{2,7,8} Barriers to effective implementation of feedback in general include lack of goal clarity, validity of the selected assessment components,^{4,5} insufficient training of the provider and the recipient, concern about undermining interpersonal working relationships, and a perceived lack of benefit.^{7,9} Less well understood are the perceptions of residents directly engaged in the giving and receiving of peer-to-peer feedback. This information could be valuable to determine what motivates their full participation and increases the effectiveness of peer-to-peer feedback exchanges.

In 2009, a peer-to-peer feedback component was added to an existing assessment protocol in the family medicine residency program at the University of Michigan. The goal of this study was to explore the perceptions of residents involved in the peer-to-peer feedback exchanges, including attitudes that could influence accuracy, usefulness, and eventual application to ongoing trainee participation and engagement.

Methods

The family medicine residency at the University of Michigan consisted of 29 residents during the academic year 2009–2010, when a pilot peer feedback process was added as a component of resident assessment. The peer assessment tool included 13 items derived from a synthesis of existing research and assessment instruments, with a focus on interpersonal/communication and professionalism skill development (provided as online supplemental material). Items were iteratively developed by residents and faculty, reviewed for content and item validity, and approved by the Residency Education Committee for non-anonymous distribution as a way of fostering collaborative discussion of peer feedback. Assessment tools were distributed to junior and senior residents while on the department's 2 inpatient medicine services. Although the tool was part of a larger assessment process, its intent was to provide formative feedback for performance improvement. Among the 29 residents, completion rates after 9 months ranged from 46% (12 of 26) of interns to 85% (22 of 26) of senior residents. One year postimplementation, an anonymous survey and focus group discussions were used to explore resident perceptions of the peer assessment process and the associated peer-to-peer feedback exchanges.

A 15-item online survey was designed by 2 residents in the program (provided as online supplemental material). Questions identified from the literature focused on completion patterns, perceived value, relevance to targeted skill development, and potential barriers/incentives to participation. Response scales ranged from 1, strongly disagree, to 5, strongly agree. Pilot-testing by 3 nondepartment-affiliated residents informed wording revisions prior to distribution. All residents received e-mail invitations and reminders with embedded web links. Upon survey completion, they received a \$5 gift card dispensed via a third party. Following the delivery of deidentified data to the investigators to preserve participant anonymity, the results were descriptively analyzed.

To build on the themes identified from the survey, a focus group protocol was designed by 2 family medicine residents to gather additional insight into perceived barriers, incentives, and relevancy of peer assessments. Discussion topics were developed from a search of the relevant literature. The protocol was modeled after the accepted recommendations for focus group design (eg, including introductory comments, participation consent, core questions, and related probes)^{10,11} and was informed by other major question and probe sequencing found in previous research.¹²

Suggestions for refining the protocol were provided by 3 expert reviewers. The focus group used 5 open-ended

What was known and gap

Peer feedback can add an important and new dimension to the resident assessment process.

What is new

A study of residents' perceptions about peer feedback explored factors that enhance accuracy and usefulness of feedback, and application of the information.

Limitations

Single specialty, single institution study limits generalizability.

Bottom line

Approaches to improve residents' ability to give and accept feedback included preparatory training, clear goals, standardization, more qualitatively oriented encounters, 1-on-1 delivery, immediacy of timing, and cultivation of a feedback culture.

questions based on perceived main content areas, with associated supporting probe queries if needed to stimulate additional discussion (BOX). Questions were reviewed for content validity and effectiveness in achieving desired responses by faculty with an interest and expertise in qualitative methodology. The residents who developed the protocol served as facilitators after receiving coaching from an experienced educational researcher.

All residents received e-mail invitations to participate in 1 of 2 semistructured, 60-minute focus group sessions. Each focus group consisted of 10 to 11 mixed-year residents led by resident facilitators to encourage open discussion. Neither department attendings nor program administrators were involved in the focus groups. Sessions were audio recorded, transcribed verbatim, and deidentified by an independent consultant. Investigators independently read the transcripts, identified recurrent themes, and subdivided notes into major and minor thematic elements until saturation was reached. The investigators achieved consensus on the final themes after multiple drafts and meetings to address areas of discrepancy.

The study was approved by the University of Michigan Institutional Review Board.

BOX RESIDENT FOCUS GROUP QUESTIONS

1. What do you see as the potential role of peer evaluation in residency education?
2. If you were asked to evaluate a peer, what barriers would get in the way of providing meaningful feedback?
3. Do you feel that you are adequately prepared to give peer feedback? Why do you feel that way?
4. What components make peer evaluation successful and useful?
5. Peer evaluation has the potential to take many different forms. For instance, peer assessment can be given face-to-face, through evaluation forms, or mediated by a third party. It can also be anonymous or linked to an evaluator. If a more formal peer evaluation system was incorporated into our residency program, what would you want it to include?

Results

Survey Findings

Of 30 residents, 28 (93%) provided survey responses (TABLE 1). The majority reported that peer feedback offered a unique perspective on their performance, distinct from that provided by faculty. While a majority expressed receptivity to changing their behavior based on peer comments, fewer thought that the existing process benefited their training. Peer feedback was considered helpful in assessing several competency domains, including communication skills and professionalism, but less relevant for assessing medical knowledge. Common barriers to peer feedback included lack of time to provide feedback, concerns about affecting interpersonal relationships, and fear of providing “uphill” feedback in the residency hierarchy. Guaranteed anonymity and easy access to standardized forms were regarded as incentives to participate in giving and receiving feedback.

Focus Group Findings

Of the 29 eligible residents, 21 (72%) participated in the focus groups, including 6 first-year, 8 second-year, and 7 third-year residents. The major themes/subthemes and representative quotes are listed in TABLE 2.

Creating Meaning and Value Through Structure The need for structure in the peer assessment process generated the most discussion, with 126 comments recorded and all but 2 residents participating. Residents generally agreed that frequent, informal, verbal feedback would allow them to make more meaningful practice-based changes. They thought feedback should be goal- and content-specific to the resident year and rotation, preferably given during protected time periods. Suggestions included having a resident committee (not faculty) set specific guidelines, goals, and learning objectives. Structurally, most favored use of peer-to-peer feedback as a regular part of the formative assessment process. By prioritizing time for peer feedback, they thought this would facilitate development of a “feedback culture” for self-improvement.

Emotional Components Of the 21 residents, 17 commented about negative and uncomfortable emotions evoked by the overall process. In this context, some debate ensued about the proper approach (ie, written versus verbal, informal versus formal), with verbal and formal feedback eliciting more emotional discomfort. Both senior and junior residents worried that feedback they received from each other could be adversely affected by their respective positions in the training hierarchy. Many expressed concern about how peers might process criticism and whether this might negatively affect future working relationships. A negative emotional reaction was associated

with the idea of a formal process due to concern for retribution or punitive actions.

Peer Feedback as Authentic Assessment More than half of the residents viewed peer feedback as more authentic and unique than faculty commentaries. Explanations included the volume and intensity of time residents spend working together and the residents’ unique perspectives into their own needs and experiences. Residents thought this peer perspective complemented the formative feedback typically received from their attendings.

Reflections on Anonymity Although anonymity was identified by the original survey as an important attribute for increasing peer feedback, focus group participants were divided equally between preferences for an anonymous versus nonanonymous approach. Supporters of nonanonymous feedback placed greater value on verbal, face-to-face encounters given the richness of information provided and the opportunity for immediate incorporation of suggested changes. Residents who expressed a desire for retaining anonymity wanted it kept as part of the process to avoid instances of uncomfortable feedback. Half of the residents favoring nonanonymity expressed skepticism over the ability to maintain anonymity given residency structure and/or prior experiences.

Peer Feedback as a Professional Skill One-third of the residents regarded competency in peer-to-peer feedback delivery as an essential professional skill that would benefit their future careers. One-quarter noted that the manner of delivery was important. Residents saw this as a critical professional skill, a way of engaging with colleagues in a mutually beneficial learning process.

Role of Education Lack of training in how to provide constructive feedback created barriers for more than half of the residents. Residents regarded the process of effectively delivering and receiving feedback as a learned skill essential to practice-based improvement. Graceful acceptance of criticism was contrasted with “hypersensitivity.” Acceptance and delivery of peer feedback were viewed as interrelated elements.

Discussion

Residents valued the contextualized nature of peer feedback and found it uniquely informative to their training, yet they perceived barriers to effective feedback implementation. Residents identified several characteristics of a peer-to-peer feedback process that could make giving and accepting feedback easier and more meaningful: preparatory training, clearly defined goals, standardization and structure, fewer and more qualitatively oriented encounters, 1-on-1 delivery, immediacy of feedback timing, and cultivation of a residency feedback culture.

TABLE 1 RESIDENT SURVEY: PERCEPTIONS OF PEER FEEDBACK

Item	Strongly Agree/Agree, No. (%)
Peer evaluations provide useful information.	25/28 (89.3)
Peer evaluations provide unique information.	24/27 (88.9)
I would change my behavior based on <i>negative</i> feedback from a peer evaluation.	25/27 (92.6)
I would change my behavior based on <i>positive</i> feedback from a peer evaluation.	22/27 (81.5)
The existing peer evaluation system benefits my training.	16/27 (59.3)
Peer evaluations are most helpful in evaluating:	
Medical knowledge	20/28 (71.4)
Patient care	25/28 (89.3)
Work ethic	28/28 (100)
Teamwork	28/28 (100)
Interpersonal and communication skills	26/28 (92.9)
Professionalism	24/28 (85.7)
Barriers to the completion of peer evaluation include:	
Lack of understanding regarding the process	3/27 (11.1)
Lack of time	9/27 (33.3)
The potential to undermine relationships among residents	4/27 (14.8)
Fear of future retribution	4/27 (14.8)
That it is threatening to be an evaluator for a senior resident	5/27 (18.5)
That it is threatening to be an evaluator for a junior resident	2/27 (7.4)
I would be more likely to complete a peer evaluation if it was:	
Anonymous	24/27 (88.9)
Automatically generated	23/27 (85.2)
Shorter in length	17/27 (63.0)
Credited toward my annual evaluation	13/27 (48.1)
Average % peer evaluations completed	
91–100	20/28 (71.4)
71–90	1/28 (3.6)
51–70	2/28 (7.1)
31–50	1/28 (3.6)
11–30	1/28 (3.6)
0–10	3/28 (10.7)

Consistent with previous findings,^{2,13,14} residents found peer feedback most helpful in assessing work ethic, teamwork, interpersonal and communication skills, and professionalism, but less helpful in assessing medical knowledge. This information can be used in competency and milestone assessments for residents, as both professionalism and communication are considered family

medicine residency milestones. Our results also support the authenticity of peer feedback,^{2,13,14} with participants commenting that peers often provide feedback on situations that otherwise go unnoticed or unaddressed by attendings. Participants reported that the resident hierarchy posed a significant barrier to peer feedback, similar to the findings from other studies identifying concerns about its

TABLE 2 FOCUS GROUP THEMES AND REPRESENTATIVE QUOTES

Major Themes and Subthemes	Representative Quotes
Creating meaning and value through structure ■ Make feedback meaningful (15 respondents) ■ Ideas about implementation (13 respondents) ■ Clearly define goals (12 respondents) ■ Standardize the process (11 respondents) ■ Create expectations; a feedback culture (11 respondents)	“We get oversaturated with evaluation surveys [of department faculty] [...] one solution might be to have fewer evals but have them be in more important circumstances.” “The more frequent[ly] you do [peer feedback] and the more regular you make it ... it becomes easier to accept the evaluation and criticism.” “It should be part of the agenda setting of the day, just like your teaching or whatever else you are supposed to do.” “I don’t know that making it a more formal process is going to be useful in terms of getting the information across [...] [and] it will just increase the punitive nature of the whole thing, possibly, making it more permanent.”
Emotional components ■ Concern about negative reactions creates barriers (11 respondents) ■ Relationships and seniority play a role (9 respondents) ■ Approach facilitates or inhibits success (9 respondents)	“I didn’t want to write on the evaluation [that] this senior [resident] did Facebook while I was ‘dying’ [from burden of work responsibilities]. I didn’t want to negatively affect her career but at the same time ... I couldn’t be like ‘what the hell are you doing?’” “[W]hen I’ve asked interns for feedback, I actually don’t get much. And I don’t think it’s because there’s nothing to say. It’s just the hierarchy.”
Peer feedback as authentic assessment ■ Provides unique information (11 respondents) ■ Contributes to 360° evaluation process (5 respondents) ■ Should contain unique peer-to-peer components (5 respondents) ■ Potential source of collegial reassurance (1 respondent)	“[Peer feedback is] an incredibly useful tool because you have someone who is [...] in the trenches with you [...] seeing how you function [...] moment to moment.” “The attending has a very limited period of time of interaction with you [...] the portion of the day that [attendings] see is so limited that their perspective is limited.”
Reflections on anonymity ■ Desire for verbal feedback; acknowledging nonanonymity (8 respondents) ■ Desire for anonymity, written feedback (6 respondents) ■ Varying preferences for formal documentation of feedback versus informal feedback, not maintained in record (9 respondents)	“[S]ince we are in a profession that we rely on our colleagues to give us feedback [...] do we have to hide behind shadows to give honest feedback? Because we should just be able to look at somebody and say ‘this is what you did wrong.’ Honestly for me, if it’s not anonymous, sometimes I think I respond more to it.” “[T]hat’s partly why I like the idea of writing versus talk [...] some of those things are very difficult to say to someone like, ‘you are really rude to me sometimes.’”
Peer feedback as a professional skill ■ Competency in peer feedback is important (7 respondents) ■ Approach plays a role in effectiveness (5 respondents) ■ Potential for mutual professional development (2 respondents)	“The intern [and] the senior [are] in a new role [...] So it’s really a chance for both people to ideally interact in a way that allows both people to move forward.” “[T]he face-to-face skill [in providing feedback] is important because [...] knowing how to say things and what’s important [are] skill[s] we should be developing in residency. It’s not like you’re going to suddenly graduate and get to a magical place where you’re never going to have differences with anybody.”
Role of education ■ Lack of training in providing constructive feedback (8 respondents) ■ Importance of learning how to give/accept feedback (5 respondents) ■ Development of curriculum incorporating feedback (2 respondents)	“I think [...] it’s a learned skill to be able to say [feedback to a peer] in a way that doesn’t come off as judgmental, that comes off as informative and useful.” “[A] big component of giving peer [feedback] is how you accept evaluations from others, and if you are one of those people that is very sensitive to any comment, you’re probably going to be a little more passive when you are giving an evaluation. So if we can learn to take criticism, I think it will help in giving criticism.”

negative effect on interpersonal relationships.^{2,7,9} Similar to prior research, junior residents were more receptive to providing feedback to seniors when the delivery mechanism was not face-to-face.¹⁴ Because of the size and structure of the family medicine residency, residents acknowledged that complete anonymity was not always possible. This finding parallels that of Dupras and Edson¹ in that the attempts to ensure anonymity did not always dispel the fears of those asked to give feedback. One possible way to address the issue of anonymity is to offer peer feedback less frequently (ie, a couple of times a year), acknowledging the tradeoffs of reduced specificity and delayed implementation. Another

option could involve the program director (or equivalent) summarizing the formative peer feedback for periodic review and discussion. A peer review process focused on verbal, timely, and more frequent feedback that would allow residents to incorporate changes more quickly as opposed to written feedback, which is supported by a previous study.¹⁵ An informal process would also help address the existing barriers to giving and receiving peer feedback.

Another strategy for minimizing the emotional discomfort associated with peer feedback included the creation of a “feedback culture.” Past research involving medical students identified institutional culture as critical

to successful implementation, and found that anxiety and resistance were best combated through collective engagement and meaningful feedback to support ongoing professional development.¹⁶ By standardizing the process, the residents in our study thought peer feedback delivery would be easier to navigate and anxiety would be reduced. Such an approach has improved performance and resident satisfaction in other programs.¹⁷ Finally, residents suggested that receiving advanced instruction would enhance their confidence and skill in delivering peer feedback, which is consistent with the findings from other studies.^{6,17–19}

Although the importance of faculty oversight has been assumed in previous research,^{14,20,21} the majority of residents in our study disputed the value of faculty involvement and thought a resident-driven process provided the most relevant and honest feedback.²² Additionally, a negative emotional reaction was associated with the idea of formalizing the process or placing it in the hands of faculty/residency administration due to concern for retribution. A previous study suggests that residents may not ultimately feel responsible for their colleagues' performance and do not regard peer feedback as integral to professional development.⁹ In contrast, the residents in our study regarded the ability to engage in peer-to-peer feedback delivery as a critical professional skill requiring professional accountability and interdependence that would benefit them in their future careers. This finding is supported by studies where residents thought the exchange of feedback enhanced teamwork and encouraged a higher level of professional interaction among peer colleagues.^{9,14}

Limitations of this study include generalizability constraints associated with small sample size and single specialty/institution focus. Further, use of deidentified survey and focus group data prohibited analysis of individual-level responses. A strength of the study is the use of focus groups, a methodology that allowed a more in-depth exploration of resident attitudes and preferences toward peer feedback systems.

Future studies would benefit from inclusion of additional subspecialties with a focus on changes in resident perceptions and performance behaviors over time. Future research should also consider the potential for unintended consequences of peer-to-peer assessment, such as the effect of hypersensitivity on receiving feedback leading to potentially more passive and less meaningful feedback over time.

Conclusion

Peer-to-peer feedback can be useful and uniquely informative to residency training. Approaches that improve

residents' ability to give and accept feedback included preparatory training, establishing clear goals, standardization, more qualitatively oriented encounters, 1-on-1 delivery, immediacy of timing, and cultivation of a feedback culture. Residency programs interested in refining an existing approach or initiating peer-to-peer feedback process may find these results useful.

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