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Leadership-Specific Feedback Practices in Surgical Residency: A Qualitative Study

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Abstract

Objective: The importance of feedback is well-recognized in surgical training. Although there is increased focus on leadership as an essential competency in surgical training, it is unclear whether surgical residents receive effective feedback on leadership performance. We performed an exploratory qualitative study with surgical residents to understand current leadership-specific feedback practices in one surgical training program.

Design: We conducted semi-structured interviews with surgical residents. Using line-by-line coding in an iterative process, we focused on feedback on leadership performance to capture both semantic and conceptual data.

Setting: The general surgery residency program at the University of Michigan, a tertiary care, academic institution.

Participants: Residents were purposively selected to include key informants and comprise a balanced sample with respect to post-graduate year (PGY), gender, and race.

Results: Four major themes were identified during the thematic analysis: (1) the importance of feedback for leadership development in residency; (2) inadequacy of current feedback mechanisms; (3) barriers to giving and receiving leadership-specific feedback; and (4) resident-driven recommendations for better leadership feedback.

Conclusions: Many surgical residents do not receive effective leadership feedback, although they express strong desire for formal evaluation of leadership skills. Establishing avenues for feedback on leadership performance will help bridge this gap. Additionally, training to give and receive leadership-specific feedback may improve the quality and incorporation of delivered feedback for developing surgeon-leaders.

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Keywords

leadership; leadership development; feedback; graduate medical education; professionalism; interpersonal skills

Introduction

Effective leadership skills are crucial for practicing surgeons, who lead multidisciplinary teams in high-pressure environments and complex healthcare systems.^{1–3} The same is true for surgical residents, who lead teams of junior residents, nurses, pharmacists, and other clinicians at the frontline of patient care.⁴ Competence in leadership skills such as emotional intelligence, team-building, or conflict management may be as valuable for residents as clinical and technical proficiency. However, unlike for clinical and technical skills, there are few tools to assess leadership competence in residency.^{5,6} As a result, feedback—or information about a learner's performance intended to improve performance—may become the primary mechanism by which residents glean insights into their leadership abilities, reinforce positive leadership behaviors, and identify negative ones.^{7,8}

Despite its importance, it is unclear how feedback on leadership performance is currently delivered during surgical residency. The Accreditation Council for Graduate Medical Education (ACGME) incorporates leadership requirements into the six core competencies for resident education (especially in two competencies: interpersonal and communication skills and professionalism), but it is unknown whether these formal assessments result in adequate feedback for leadership development. Many studies have found that feedback for clinical or technical skills is suboptimal, and similar gaps may be present for leadership.^{9–11} In the absence of adequate feedback, residents may rely on self-assessment. However, self-assessment is inaccurate; a study comparing residents' self-assessments with nurse, peer, and faculty ratings found that poorly-performing residents consistently overestimated their own performance, especially in domains related to interpersonal skills and professionalism.^{12–14} As a result of inadequate feedback or inaccurate self-assessment, residents may develop blind spots about their leadership abilities, contributing to ineffective team management and poor patient outcomes.

In this context, we undertook an exploratory qualitative study to better understand current leadership-specific feedback practices in surgical residency. Our aims were to explore the context around giving and receiving leadership-specific feedback, and to understand how this feedback affected residents' leadership development throughout their training.

Methods

Overview

This exploratory study was part of a larger qualitative study, which had a primary purpose of performing a needs assessment for resident leadership development. Although the interview guide did not explicitly ask residents about feedback, it was a recurring topic in each interview as an important component of leadership development. Based on this finding, we

performed a secondary coding analysis of these interviews focusing on the intersection of leadership and feedback.

Participants

Eighteen general surgery residents from one residency program at a large academic institution participated in the study. Residents were purposively selected to comprise a balanced sample, aiming for equal numbers of residents of each post-graduate year (PGY) and gender. We purposefully included residents of minority race, roughly reflecting national proportions. We also included residents who were considered “key informants”, or participants who would be information-rich based on their own leadership positions, prior experiences in leadership, or engagement within the residency program.¹⁵ Participants were recruited through individual emails or text messaging. Participation was voluntary, and residents did not receive compensation to participate. Before each interview started, participants gave verbal consent to participate in the study, and they were informed that participation was voluntary, they could discontinue the interview at any time, and that all interviews and transcripts were confidential.

Data Collection

A standard interview guide was developed to conduct semi-structured interviews with the participants, which explored the following topics: characteristics of good and bad resident leaders, how residents learn leadership skills, the potential role of a formal leadership development program in residency, potential barriers for such a program, and how subjects knew if they were leading effectively. The interview guide was developed by JV and CH, both surgical residents, and GS, an expert in qualitative research and surgical education. It was tested by JV and CH on study team members to develop fluency in interviewing skills and pilot the interview questions. All interviews were conducted one-on-one in person by either JV or CH at a convenient, comfortable location for participants (e.g., hospital cafeteria or research office). Areas of interest that arose during the interviews were explored further with probing questions. The average interview length was 30 minutes.

Interviews were audiotaped, transcribed by research assistants, checked for accuracy by members of the research team (JV, CH), and deidentified. Names of any other individuals mentioned were redacted from the transcripts. Demographic data were self-reported by each participant and included age, gender, race, PGY, and planned specialty.

Analysis

Transcripts were first coded line-by-line manually for both semantic and conceptual data by two independent researchers (JV and CH). Codes were finalized by consensus, with divergent codes discussed between the two researchers until agreement was reached. We used inductive reasoning to sort codes and identify patterns in the data. Consistency and relationships among codes led to clustering into themes and sub-themes. Member checking, or confirming themes and interpretation with interview participants who were also research team members (AD and BB), was performed as a validity measure.¹⁶

Data analysis and management was performed using NVivo 11 (QSR International; Melbourne, Australia). Prior to initiation of interviews, the University of Michigan Institutional Review Board reviewed this study and approved it as exempt.

Results

Eighteen residents participated in the study; 8 (44%) identified as female and 11 (61%) as white. There were two to four residents from each PGY included in the sample, which represented 40% of the program. Through our analysis, we identified four major themes:

1. Importance of feedback for leadership development in residency
2. Inadequacy of current feedback mechanisms
3. Barriers to giving and receiving leadership-specific feedback
4. Resident-driven recommendations for better leadership feedback

In addition to the comprehensive thematic analysis to follow, all four themes and associated sub-themes with illustrative quotes are synthesized in Table 1.

1. Importance of feedback for leadership development in residency

Every resident described feedback, both encouraging and corrective, as an important part of leadership development, especially in improving day-to-day leadership practice. When asked how residents developed their leadership skills, one resident stated, “[Residents] should ask the team. The problem is it’s really hard to know when you’re not being an effective leader...they’re not aware until somebody points it out to them.” This quote illustrates that a lack of feedback can lead to blind spots, where residents may be unaware of their own missteps. Similarly, another resident described feedback as a way of “correcting or calibrating your self-perceptions with the way other people view you...if you don’t make an effort to do that, then you’re going to be in some trouble in knowing what the reality of the situation is.”

Many residents talked about the importance of *receiving* and *incorporating* feedback as an active process for which each resident was responsible. For example, one resident stated, “We have to listen to feedback and then incorporate that feedback into our practice.” Another resident described taking specific points from feedback and paying attention to those behaviors: “I tried to incorporate [feedback]...say, if an evaluation said I was condescending, I would try to be mindful—try to think about the behaviors that made me seem condescending and then try to make them better.”

In summary, residents placed significant value in feedback as part of the formative process of honing their leadership skills. While residents pointed to the importance of giving and receiving feedback for leadership growth, they also noted the need for purposeful implementation of that feedback.

2. Inadequacy of current feedback mechanisms

Every resident observed that current leadership-specific feedback mechanisms, both formal and informal, were suboptimal. Formal feedback methods described were predominantly monthly end-of-rotation evaluations and semi-annual review of written comments from faculty and peers. Residents described many weaknesses of this process. Formal written feedback was often received in a delayed fashion, limiting its usefulness to help residents change their behavior in a timely fashion. Residents also perceived formal feedback to be too nonspecific to guide steps for improvement. As one resident described it, “I still get evaluations that are like, ‘Good job!’ And you’re thinking, ‘Come on, we worked together for a whole month! Tell me something else.’” As another weakness, residents pointed out that the people writing formal evaluations were often not the same people who interacted with the residents on teams and observed their leadership skills. For example, one resident explained, “Most of our feedback comes from a single source, and those people don’t always see you as a leader. A lot of our feedback is from faculty, and they don’t see you leading your team.”

Most importantly, residents maintained that formal feedback did not focus on their leadership skills, even though effective leadership was still expected of them. They cited a prioritization of clinical and technical learning over leadership development in residency. As one resident described it, “I think a lot of the feedback is technical, a lot of it is in our decision-making, but rarely in how we handle ourselves... if we’re handling ourselves poorly, those are also things I think we need feedback on. I’ve never received that kind of feedback. People tell you to speak more slowly on your presentations or they tell you that your stitch sucked but they don’t tell you the way you talked to someone was inappropriate.” Another resident noted that it could be detrimental to “let people graduate from our program and not have told them ‘Hey, you’re really bad at this, or you’re really good at this.’ Especially if you’re really bad at it. We wouldn’t let people graduate with serious technical or operative deficiencies without being told that. I would hope that the same thing would happen for these interpersonal skills.”

In the absence of adequate formal feedback, residents fell back on informal feedback as a way to assess their own leadership performance. Some residents mentioned in-person, on-the-fly feedback that they had received from peers or attendings, but on the whole residents agreed that in-person feedback was rare. One resident, when discussing feedback after leading trauma resuscitations, stated, “I didn’t ever actually have an attending that ever debriefed a trauma resuscitation with me.” When residents did receive in-person feedback, they believed it was valuable. One resident explained, “I believe in the value of verbal feedback, and I believe it should come at a time when I can still change my behavior.”

Aside from in-person discussions, residents described a variety of other ways that they evaluated their own leadership. Residents used patient outcomes as one way to assess their leadership performance. For example, one resident explained, “Obviously if the work isn’t getting done then you’re not leading effectively. If the balls are getting dropped and patients are not getting good care. But that’s a very simplistic way to think of it. That’s like the bare minimum. If the boxes are getting checked but everyone is really unhappy, then you’re not leading effectively.” This quote underscores that leadership affected the team dynamic in a

way that could be independent of whether clinical outcomes were good or poor. Similarly, another resident described knowing her leadership performance was effective “when your team is happy. Even when things are going badly, your team is happy.”

Another variety of informal feedback consisted of subjective, subtle processes like reading team members’ facial expressions or body language. Residents also paid attention to the team dynamics: “It’s the way people carry themselves...Even when people are really busy, if everyone’s paying attention to one person that’s talking, it shows that the entire group has mutual respect for whoever is talking...You can tell that it’s a respectful environment – people in good groups tend to smile more, they have these non-verbal cues. They tend to make a lot more eye contact...People will volunteer to do things.”

Specific weaknesses of informal feedback included that it was difficult to both recognize and interpret. Regarding recognition of feedback, residents pointed out that they could be unaware that a team member’s response actually constituted feedback. As one resident expressed, “We receive a lot of feedback and a lot of times we don’t realize that’s what it is.” Residents varied in how much awareness they had of team members’ reactions to their leadership styles. Some residents spoke in great detail about reading team members’ body language, while others described having less insight into those implicit cues. Regarding interpretation of feedback, residents expressed that informal feedback was highly subjective. One resident highlighted the inability to trust their own interpretation: “I try to read people’s reactions...but you never know if what you’re seeing is accurate. People might smile and say ‘Yes’ and ‘Good job’ but you never know if any of that’s true...Some of those are really super subtle.”

Overall, residents agreed that both formal and informal methods of leadership-specific feedback were inadequate to promote growth. Formal feedback often omitted any mention of a resident’s leadership performance and was too infrequent to be useful. Informal feedback was more frequent but was highly dependent on each resident’s awareness and subjective interpretation of the implicit cues from other team members.

3. Barriers to Giving and Receiving Leadership-Specific Feedback

Residents recognized several barriers to giving leadership-specific feedback. Many of these barriers were structural in nature. Residents cited a lack of opportunity to give feedback, both formal and informal. For example, some residents had never been able to evaluate mid-level residents or senior residents through the formal evaluation system. For in-person or verbal feedback, residents cited a lack of time to put towards giving feedback during the workday. For example, one resident stated, “Chiefs have tried to do some sort of feedback with people but things are busy, and then the month is over and you forget.” Another important barrier was both personal and structural: the power differential between leader and team member, especially within the surgical hierarchy. The hierarchy made junior residents feel uncomfortable giving constructive feedback about leadership to a senior resident, especially because of the possibility of retribution. For example, one resident noted, “It is hard. You don’t want to be the intern giving your senior feedback, chiefs are perfect, right? The peer-to-peer feedback and bottom-up feedback is not quite there yet.”

Residents identified other personal barriers to giving feedback, including that giving corrective feedback could be an uncomfortable conversation given the risk of hurting the other resident's feelings. Residents described this unwillingness both from their own perspective, but also as a part of the residency culture as a whole. As one resident put it, "I wish we could find a way or a mechanism for people to be forthright and not scared of offending people." Another difficulty came from an inability to give specific, constructive suggestions, especially when residents felt that another resident's leadership performance was poor. One resident explained, "It's easier for me to give feedback to the people I really enjoy working with...I don't have very effective communication for the times I feel somebody's a really ineffective leader and I've been really frustrated by it but I haven't identified—'How do I actually help improve this?'" Given this discomfort and the transient nature of residency teams, some residents avoided giving feedback altogether. As one resident noted, "I don't think I've ever given [a senior resident] feedback...like, if this is working or this isn't working, we all just go about our day and know that in about a month, it's going to be a different team."

Residents also noted barriers to receiving feedback, all of them personal. Remaining open to feedback was something that many residents described as difficult—it was easy to take feedback on their leadership skills personally, given the strong overlap between leadership skills and personality. As one resident put it, "They don't particularly comment on your leadership style. They comment on you...sometimes it's hard to separate out what's your leadership style and what's a personal thing." Another resident described how this compounded with the existing stressors of residency: "It's scary to look at yourself and see where you're lacking. You have to be humble and ready for change and ready for comments that might be challenging in our stressful, sleep deprived, busy lives. It might be hard to swallow."

In summary, residents identified structural and personal barriers to giving and receiving feedback about leadership performance. Structural barriers included minimal opportunities to engage in feedback conversations and the hierarchical nature of training. Personal barriers included a culture that discouraged giving honest, constructive feedback, as well as the difficulty in being open to comments, particularly those that pointed out personal shortcomings.

4. Resident-driven recommendations for better leadership feedback

Residents had many suggestions for ways to improve leadership-specific feedback in residency. On the whole, residents desired a formalized system to collect and deliver feedback on their leadership performance, especially from multiple sources including junior residents, advanced practice providers, and nurses. For delivery of this feedback, residents recommended that it be frequent, easy to use, constructive rather than overly negative, and should focus on specific components of leadership. One resident expanded on this last point of specificity: "To evaluate [leadership], we have to break down what being a good leader means and what we're focusing on...less evaluating leadership as a big cloud and more...the parts of leadership that we are going to assess you on."

Residents spoke in depth of ways to improve the reception and incorporation of feedback into their leadership practice. Several residents recommended a system where they could review their leadership-specific feedback with a mentor. This mentor could serve multiple purposes. First, leveraging a trusted relationship, where development was prioritized over judgment, could help take alleviate some of the sting of corrective feedback. One resident pointed out, “You’d want to pick people very carefully. Having people...involved where it’s going to feel like any feedback you get is very much constructive and not intended to make you feel bad about anything.” Second, the mentor could provide a valuable third-party perspective to corroborate or reflect on comments from evaluations. As one resident noted, “You could have the opportunity to sit down with someone...who sees everyone’s results and can say, ‘Here’s how you seem to be standing among your peers.’” After mentored review of feedback, one resident spoke of a formal process to make action plans: “A more deliberate program of reviewing [feedback] and trying to change things, like a plan of some kind, might be helpful.” Importantly, this process could complement the role of Clinical Competency Committees (CCC), where a group of attendings and mid-level providers convene to produce milestone ratings for each resident.¹⁹ While the CCC serves as a more summative evaluation of a resident’s performance, mentored review of feedback could be more frequent and formative to promote behavior change.

Residents also explained that a formalized feedback mechanism specifically for leadership performance would improve the overall feedback culture in the residency. As one resident noted, “a formal way, where every person got forthright, blunt feedback from a lot of different people on their abilities to lead” would set expectations that all residents would receive encouraging and corrective feedback, facilitating openness. Making this routine could mitigate defensiveness from criticism: “If we build it into the culture of our program...then maybe if I receive that correction I’m not going to take it so personally.” As another resident said, “There’s got to be a cultural shift of where people feel comfortable telling people that they do not like what is going on and it not being taken personally.” Finally, some residents discussed ways that they personally could improve their own openness to feedback. For example, one resident discussed handling critical comments by focusing on future actions: “Depersonalize it...don’t think, ‘I’m terrible,’ think, ‘Cool, I have something to work on.’”

To summarize, many residents offered specific recommendations to improve the delivery and receipt of leadership-specific feedback. A formal structure for feedback was strongly supported, as building the expectation for feedback into the system could facilitate a more open and receptive culture. Residents also endorsed leveraging personal relationships, such as with trusted mentors, to facilitate the receipt and incorporation of feedback.

Discussion

In this exploratory study, we found that surgery residents strongly value feedback on their leadership skills, but they express some dissatisfaction with the current methods of obtaining that feedback during residency. While they describe structural barriers to leadership-specific feedback, they emphasize that personal and cultural barriers, such as a reluctance to point out another resident’s shortcomings, may be more difficult to surmount. Finally, residents

offer insight into how this process could be improved to better develop them as physician leaders. Specifically, residents recommend a formal feedback mechanism that focuses on their leadership skills as a way of building the expectation for feedback into the residency culture. Considering the importance of leadership as a domain of physician competence, our findings can help inform ongoing efforts to intentionally develop leadership skills during residency.

This study adds to the growing body of literature exploring the context of giving and receiving feedback as a part of medical education. Many studies have explored feedback barriers and facilitators from both the resident and faculty perspective.^{11,20–25} For example, one qualitative study with internal medicine residents examined the importance of cultural factors in giving and receiving feedback, finding that a culture of “niceness” hampered the provision of honest feedback, especially given the hierarchical differences between residents and attending.²⁴ Another study of surgical and nonsurgical faculty found that faculty members were reluctant to give residents constructive feedback, even if residents had poor or failing clinical or technical performance.²⁶ However, our study is novel in that it specifically examines feedback practices around leadership performance, which may be a more sensitive topic than clinical or technical skills. In fact, several residents in our study highlighted that leadership-specific feedback was more difficult to give or receive than feedback in other domains. Our findings show that leadership-specific feedback is not emphasized given competing educational priorities, even though residents value leadership development as an important part of training.

There is a call for physicians to remain in leadership positions in the increasingly complex healthcare environment, with emerging evidence that hospitals led by physicians may have better patient outcomes and more efficient resource utilization than ones with non-physician managers.^{3,27,28} Effective leadership in healthcare encompasses many skills, including organizational management and financial acumen. However, interpersonal skills such as self-awareness, empowering team members, and effective communication are also a crucial part of leadership, and these are arguably as important during residency as in future practice. This sentiment is echoed by the ACGME, which places interpersonal and communication skills and professionalism among the six core competencies of graduate medical education. Unlike other domains of competence, these skills are difficult to objectively assess—rather than standardized tests of knowledge or scales of technical competence, interpersonal skills are best assessed by team members, peers, and other individuals. This highlights the value of feedback in developing leadership, a sentiment echoed by the residents in our study. As momentum increases for leadership training to become a part of residency education, our findings can be used to improve feedback practices specifically around leadership skills.^{29,30}

First, leadership skills should be formally assessed as part of a resident’s evaluation of competency, and feedback should be provided from faculty, peers, and team members. For practicing surgeons, 360-degree multisource feedback tools have been used for this purpose, and similar models may be useful for residents.^{31–33} Second, even if the format of the feedback ascribes to best-practices—timeliness, specificity, and promoting action—barriers to honest feedback may remain, rendering the feedback ineffective.^{34–36} Both residents and faculty members should be aware of these factors, as they will need to be overcome to truly

promote the open flow of leadership-specific feedback. While shifting a program's feedback culture is a complex, context-dependent process, strategies to promote a positive and open feedback environment can include building trusting relationships, acknowledging that everyone can benefit from feedback, and focusing on future growth rather than past missteps.^{8,24,36,37} Making leadership feedback systematic and routine can also set expectations that feedback is a part of growth and can help residents feel less defensive about constructive comments. As an added benefit, improving the culture around leadership-specific feedback may also promote general feedback on other skills, benefiting other domains of resident education. Third, using a coaching model, where a trusted mentor reviews performance feedback with a resident, could be an effective, albeit time-intensive, process to improve leadership skills. Many residents discussed the importance of actively incorporating feedback and being motivated to change. This process, termed "proactive recipience" of feedback, could be facilitated by coaching and developing action plans.^{36, 37}

Our study has important limitations. First, it was conducted in a single residency program, limiting the generalizability of the findings to other institutions. For example, while our residents reported that formal feedback did not focus on leadership performance, this may not be the case in other programs. However, our findings are consistent with other studies of feedback in resident education, indicating some commonalities between programs and specialties. We also purposefully sampled residents to include all years of clinical training and residents of varying demographic groups, aiming to capture a diverse range of opinions. A second limitation is that we only focused on residents in this study, and we did not include faculty members or team members of different disciplines, such as nurses or advanced practice providers. These perspectives would undoubtedly add additional insight and warrant future study. Finally, although all residents independently brought up the topic of feedback during their interviews, exploring feedback was not the aim of the study. Further exploration of leadership-specific feedback, especially surrounding how residents receive feedback or handle hurtful comments, can inform a formal feedback mechanism that is likely to be useful to residents.

Conclusions

In conclusion, surgery residents desire better feedback during residency to grow and develop as leaders. Barriers to effective leadership-specific feedback are multifactorial, but personal and cultural barriers may be the most important to overcome. Our results can be used to build formal feedback mechanisms to help residents address areas for improvement so they can better lead multidisciplinary teams, teach junior residents and students, and deliver optimal patient care.

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Table 1.

Participant Demographics.

Characteristic	N (%)
Female	8 (44)
Race	
White	11 (61)
Non-White	7 (39)
PGY	
1	3 (17)
2	2 (11)
3	2 (11)
4	4 (22)
5	3 (17)
6	2 (11)
7	2 (11)

Table 2.

Themes with Representative Quotes.

Theme	Sub-Themes	Illustrative Quote
Importance of feedback for leadership development in residency		"Direct, consistent, accurate, and reproducible feedback is probably the best thing that we can get."
Inadequacy of current feedback mechanisms	Formal—not timely	"The hard part with our evaluations is, sometimes they happen two months later, and you've lost that lag time and you can't do anything. Semi-annual review isn't a good format for it either, because that's twice a year."
	Formal—not leadership-specific	"Formal feedback, we have our peer evaluation twice a year from our program director...you talk about them very briefly. The end of service rotations don't always say stuff about leadership. This is the only year that I've had to be in a leadership role, but...my end of service rotations never explicitly mentioned it."
	Informal—Selection bias	"You're naturally going to select for the stuff that you want to hear or don't want to hear...in the absence of a formalized system it's kind of ineffective I think."
Barriers to giving and receiving leadership-specific feedback	Structural—Lack of opportunity	"We never had that opportunity to evaluate the people above us."
	Structural—Hierarchy	"When you're in a more senior position, people are hard pressed to give you negative feedback. And they're not going to do that unless you make it super easy for them to do that. So one way I try to do that is criticize myself first."
	Cultural—Reluctance to criticize	"People just don't really criticize each other much, even if it's in a constructive way."
	Personal—Uncomfortable to give	"It's a difficult conversation to have which I think is a barrier because we've all got big egos. Me trying to tell someone who's a peer of mine how to do something better for me is kind of difficult to do."
	Personal—Uncomfortable to receive	"The barrier is it's harder to receive feedback that'll make you feel bad. You have to be okay with that, with people being critical of you."
Resident-driven recommendations for better leadership feedback	Have a formal feedback mechanism specifically for leadership	"You don't know how to get better if you don't know how you're doing. Having a formal program where people evaluated you and said this is what you need to work on, will be really useful."
	Improve feedback culture	"In real life we need to get comfortable communicating with each other about gaps and progress."