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Using Peer Feedback to Promote Clinical Excellence in Hospital Medicine

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Hospitalists provide a significant amount of direct clinical care in both academic and community hospitals. Peer feedback is a potentially underutilized and low resource method for improving clinical performance, which lends itself well to the frequent patient care handoffs that occur in the practice of hospital medicine. We review current literature on peer feedback to provide an overview of this performance improvement tool, briefly describe its incorporation into multi-source clinical performance appraisals across disciplines, highlight how peer feedback is currently used in hospital medicine, and present practical steps for hospital medicine programs to implement peer feedback to foster clinical excellence among their clinicians.

KEY WORDS: peer feedback; professional development; clinical excellence; hospital medicine

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CLINICAL CASE

An early-career hospitalist is called to her annual meeting with the Chief of Service. She feels like her first year on faculty has been a steep learning curve but has yet to receive much reinforcing or corrective feedback regarding her clinical care, so she assumes she is performing as expected. The Chief congratulates her that her length of stay and readmission metrics are within the expected range for the hospitalist group but mentions having received feedback over the past few months from hospitalist colleagues that her handoffs are often not updated with the most accurate clinical information. When she asks for more details regarding these concerns, the Chief states that unfortunately that is all they know about the issue. Leaving the meeting, the hospitalist is embarrassed and unsure of how to improve her clinical aptitude. She yearns for more timely and structured feedback to proactively improve her clinical performance.

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INTRODUCTION

Hospital medicine is the nation's fastest growing specialty with more than 50,000 clinicians currently practicing in the USA.[1] In both community and academic programs, hospitalists provide a significant amount of direct clinical care and clinical oversight.[1] Many hospitalists begin practice immediately following residency training, where they subsequently develop and refine nascent practice patterns on the job. With an increasing presence in the acute care setting and demonstrated higher mortality rates for patients cared for by early-career hospitalists,[2] tools that foster and improve clinical excellence are critically important.

Clinical excellence can be defined as the practices, attitudes, skills, and knowledge of an expert clinician that lead to delivering compassionate and informed patient care.[3, 4] Prioritizing the development of clinical excellence may result in better patient outcomes, clinician wellness, and faculty retention.[5, 6]

Current means of promoting clinical development usually occurs at the individual level only during licensing, board recertification, and hospital credentialing via programs such as Continuing Medical Education, Maintenance of Certification, and Ongoing Professional Practice Evaluation, respectively. Across medical specialties, diverse methods to assess clinician performance have included standardized patients, video observation, portfolios or appraisals, and audits of medical records or written correspondence.[7] These methods are resource-intensive, reliant on self-interpretation or delayed, indirect observations, often perceived as punitive, and result in uncertain impact on clinical practice.[8] Within hospital medicine specifically, other described methods to promote clinical excellence include mentorship, case conferences, and clinician work groups.[9] Such programs are dependent on more experienced clinician involvement, require dedicated non-clinical time, may be costly to implement, and do not provide timely, individualized feedback.

Peer feedback is a potentially underutilized method of clinical performance improvement, which overcomes many of the above-described barriers and lends itself well to the frequent patient care handoffs experienced in hospital medicine. We reviewed current literature on peer feedback to provide an overview of this performance improvement tool. We briefly describe its incorporation into multi-source clinical performance appraisals across disciplines, highlight how peer

feedback is used currently in hospital medicine, and present practical steps for hospital medicine programs to implement peer feedback to foster clinical excellence among their clinicians.

PEER FEEDBACK ACROSS MEDICINE

Given with the intent to improve performance, peer feedback is insight from a colleague about the comparison between an observed performance and a standard.[10] It has been used as a strategy to promote clinical excellence in medicine since the late 1950s.[11, 12] Peer feedback improves the accuracy of self-assessment when used as an external resource, avoiding the clinician's impulse to only seek out or incorporate affirmative feedback or apply unfairly negative perceptions.[13–15]

Peer feedback has been integrated into medical student and resident education,[16, 17] with feedback delivered via different modalities, including internet survey, facilitated video review, or during structured clinical examinations.[18, 19] In some programs, residents receive peer feedback to aid in professional development. In one sample from the Internal Medicine residency at the Mayo Clinic, 74 of the 103 participating residents found peer feedback to be a helpful supplement to standard faculty feedback.[20] Separately, residency programs across seven institutions participated in the LOOP project, which evaluated the impact of providing resident clinicians with feedback on recent diagnostic decisions.[21] As a result of participation in the feedback, resident clinicians reported an increased comfort with sharing feedback and increased self-efficacy in identifying and mitigating cognitive biases' negative effects.[21] Certain multi-source feedback tools have been validated with student and resident physicians, including the mini-Clinical Evaluation Exercise (mini-CEX)[22] and the Sheffield Peer Review Assessment Tool (SPRAT).[23] Peer feedback is often an integral part of multi-source (or 360-degree) feedback, a process through which feedback is collected from a clinician's colleagues, supervisors, subordinates, and patients.[24] While multi-source feedback is a valuable tool for performance improvement,[25, 26] clinicians are most likely to incorporate feedback specifically from other clinicians with whom they have worked closely with and trust.[27]

In Canada and the United Kingdom (UK), peer feedback is also used in multi-source feedback during recertification processes.[28, 29] Canadian licensing authorities have utilized peer feedback for three decades as a part of a multi-source feedback program known as the Physician Achievement Review (PAR).[30] The program provides an individualized "educational prescription" based off the assessments for clinicians who need or wish to enhance their skills.[30] On initial review of the program, two-thirds of participating physicians indicated that they were considering or had implemented changes to their medical practice based on their PAR data.[29] The UK General Medical Council requires multi-source feedback for the revalidation process. Qualitative analysis of the process by clinicians and reviewers found it to be a valuable source of feedback but expressed concern about the credibility in assessing poor performance.[31]

PEER FEEDBACK IN HOSPITAL MEDICINE

Although the exact number of participating programs is unknown, peer feedback is used in hospital medicine nationally to varying degrees. A 2019 multi-site survey of 198 pediatric hospitalists[32] found that 60% of participants had participated in peer feedback that primarily focused on patient care and teaching skills, and 61% of those reported using a "standardized tool" for peer feedback activities. Commonly reported benefits of peer feedback included identifying areas for improvement, learning about other practitioners' approaches to working with trainees and patients, and creating mutually supportive relationships.[32] Across sites, the greatest barrier to participation was clinicians' time, followed by discomfort receiving feedback from peers, non-specific or actionable feedback, and lack of validated peer feedback tools.[32]

For disciplines such as a hospital medicine, structured around shift-work and frequent handoffs, peer feedback can complete a clinical feedback loop. Clinical feedback loops relay data back to a clinician on clinical decisions and outcomes after care for a patient has been relinquished, when diagnoses may change. These loops help physicians minimize overconfidence ("no news is good news") and improve judgment to achieve maximal potential in a skill or competency.[33] At Oregon Health and Science University, Bowen and colleagues evaluated the responses of 12 hospitalists and 10 internal medicine residents to clinical feedback from peers after learning that their provisional diagnosis was either consistent or inconsistent with the subsequent diagnosis.[34] Reactions to confirmed diagnoses invoked positive emotional responses in all cases and reinforced practice patterns, while disconfirming feedback resulted in consistently negative emotional responses from participating hospitalists along with rationalizations mitigating the impact of a mistake.[34] In qualitative interviews, both confirming and disconfirming cases resulted in anticipated changes in practice moving forward,[34] highlighting the potential for peer feedback influence practice patterns in disciplines with discontinuous care patterns.

Within this same cohort of internal medicine clinicians, Bowen evaluated facilitators and barriers to feedback communication in the context of patient care transitions.[35] Clinicians expressed reluctance to communicate diagnostic changes based on the anticipated receptivity of potentially negative feedback. Hospitalists' receptivity to clinical feedback was positively associated with the sender's time on a teaching service, clinical credibility, and status as a peer or junior colleague.[35]Preference for a shared common workspace was also identified as important for feedback receptivity, as a shared space provides opportunity for spontaneous, informal feedback conversations.[35] This study suggests the setting and

format through which peer feedback may be best received are both important.

At Johns Hopkins, the hospital medicine program developed an internally validated scale to evaluate the clinical performance of 22 hospital medicine clinicians by comparing composite Press Ganey patient-satisfaction reports to a peer assessment survey.[36] They found that high scores on the composite of the physician-specific Press Ganey questions correlated with peer assessment of humanism ($P = 0.06$).[36] Despite Press Ganey's limitations of non-response bias, high ceiling rate, and low variation between questions attributed to clinicians,[37] their program was still able to identify clinicians on the ends of a spectrum: high performers for recognition and lower performers who might benefit from remediation.[36] Neither the training nor the time required to complete and analyze the survey responses was not specified. Ideally, these findings would be replicated at another institution. Yet, this study demonstrates the feasibility of peer feedback to recognize variation in clinical excellence within a hospitalist program.

A more hands-on approach was used at Massachusetts General Hospital (MGH), with senior clinical advisors acting as clinical coaches to early-career hospitalists.[38] Clinical coaching is a voluntary relationship between colleagues which focuses on a participant's strength and uses self-evaluation and feedback to improve clinical performance.[39] The program at MGH entailed twelve volunteer senior clinical advisors with more than 5 years of post-residency experience to coach 25 early-career hospitalists on medical decision-making, data interpretation, and clinical exam findings.[38] As a result of this program, most of the clinicians reported a change in their diagnostic approach (80%), and at least one change in a patient's diagnosis over a 2-week survey period (56%).[38] The program also resulted in 72% of the early-career hospitalists feeling more comfortable as an independent clinician, while 90% of the senior advisors expressed satisfaction with their role.[38] While this program was well regarded, it was dependent on the availability of more experienced clinicians willing to serve in this capacity and did not include description of the training process for senior clinicians in the coach role.

The Division of Hospital Medicine at the University of California, San Francisco developed a related structured peer observation and feedback program to improve clinicians' teaching skills.[40] Participants were trained in a 2-h session to identify previously validated teaching behaviors using a structured observation tool and assigned to observe two teaching rounds over a year in a feedback dyad. Refresher courses for teaching skills were also offered to participants. In a pre- and post-survey analysis, participant confidence in giving feedback, receiving feedback, and self-reported teaching efficacy significantly increased.[40] Structured peer observation programs demonstrate the potential of peer feedback on clinician skill building as well as comfort delivering and receiving feedback.

At a national level, the American Board of Internal Medicine (ABIM) developed the Teamwork Effectiveness Assessment Module (TEAM) to use feedback to evaluate hospitalist interprofessional teamwork.[41] The online module integrates qualitative and quantitative peer feedback as a part of a multi-source survey, self-assessment survey, and a peer-led reflective component to generate individual development plans.[41] Note that there was no mention of pre-training in the use of the tool or the amount of time spent completing the module. On TEAM pilot testing, all 15 participating hospitalists reported receiving meaningful, actionable information from the tool.[41] Peer feedback can be used to assess and improve hospital clinicians' interprofessional practice, a core clinical competency in hospital medicine.[42]

LIMITATIONS TO PEER FEEDBACK

There are several limitations to peer feedback. First, the subjective nature of peer feedback may not accurately reflect true clinical performance and lead to bias in the reporting. Findings demonstrate that the higher the stakes of an evaluation, the more likely a peer is to report favorable findings.[43] Thus, data generated from peer feedback programs for high-stakes clinical scenarios may skew positive. Second, there is no externally validated tool for providing peer assessment for hospitalists.[44] Tools used for peer assessment in hospital medicine are often institution-specific, vary based on outcome of interest, and have not been externally validated. Depending on the method, peer feedback may be resource-intensive, especially if used as part of larger multi-source feedback program. Another important limitation to implementing a peer feedback program is cultural aversion to giving and receiving feedback.[45] Outside of formal programs developed to give feedback on clinical teaching,[40, 46] hospitalists receive little training in delivering feedback on clinical competence to peers, limiting the development of comfort in this skillset. In a survey of pediatric hospitalists, 13% of respondents reported that their program's culture was not conducive to giving or receiving feedback and 35% felt uncomfortable participating in peer feedback with colleagues.[32] To be effective, peer feedback requires the presence of a trusting relationship between colleagues and comfort providing such feedback.

CONSIDERATIONS FOR USE IN HOSPITAL MEDICINE

Peer feedback to promote clinical excellence exists along a spectrum of informal to formal sources of feedback (Fig. 1). Programs can follow accepted principles of providing feedback that is (1) based on direct observation; (2) well-timed and expected; (3) focused on specific observable behaviors relevant to the clinician's practice and institution; and (4) provided with an opportunity for the recipient to respond.[12, 14] Specific examples of recommended practices are included in Table 1.

The most informal method of peer feedback is to encourage communication, either informally or via structured means, at the time of patient handoffs or after transitions of care. This

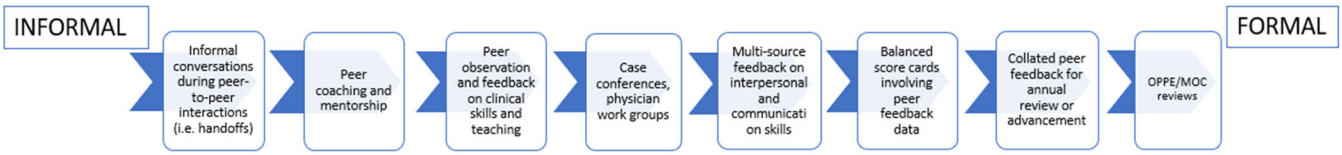

Fig. 1 Continuum of utilization of peer feedback in hospital medicine.

can form a clinical feedback loop, prompting the clinician to reflect on their management and clinical reasoning after further information is obtained or a diagnosis is reached.[47] Providing peer feedback in these transition settings allows it to be expeditious, task-specific, and low inference due to feedback timeliness.[48]

Conversations should begin with positive feedback to build a trusting relationship.[49] Once the relationship is established, constructive feedback based on direct observations will be more likely to elicit change.[50, 51] The recipient should ask "why" to continue the conversation, even when it is praise. Examples of potential language to guide the recipient are provided in Table 2. Intentional reflection enhances peer feedback.[52] Encouraging these conversations, as well as providing time and a space for this engagement, helps build an institutional culture where clinicians feel comfortable participating in feedback conversations and the expectation exists that such conversations will occur.[53]

A more formal method of implementing peer feedback is clinical coaching.[38] The coaching relationship should be voluntary, non-evaluative, non-punitive, goal-directed, and involve feedback and self-reflection.[54] Peer observation, often a part of peer coaching, has been shown to impact clinician behavior in hospital medicine.[40, 55] Performance data extracted from an electronic health record (EHR) may be provided to facilitate discussions and support feedback with tangible objectivity. Peer coaching conversations should conclude with mutual reflection on the feedback and creation of an action plan for the clinician recipient to use for self-improvement.[14, 56] Examples of a range of specific and actionable goals may include increasing thromboembolic prophylaxis compliance, improving discharge summary timeliness, or diagnostic timeouts to mitigate heuristics that may have led to misdiagnosis. Formal coaching programs require an investment in training peer coaches and dedicated, non-clinical time for discussion.

Group-wide peer surveys, another example of a structured form of peer feedback, are competency assessments performed by clinicians with similar skills and responsibilities. Surveys may be anonymous, lessening clinician discomfort delivering feedback, though not necessarily mitigating discomfort receiving feedback. Recipients of peer surveys should be given a facilitated opportunity to respond and reflect on information received, which can be accomplished via peer coaching sessions, an annual departmental or division review process, or during academic advancement procedures. When developing group-wide surveys, the tool should consider questions addressing six domains of clinical competence: communication and interpersonal skills, humanism, professionalism, diagnostic acumen, commitment for patient care, and stewardship of the healthcare system and use of resources.[36] Peer surveys used in residency training, such as SPRAT, may also be adapted for early-career clinicians.[57] A minimum

Table 1 Best Practices for Peer Feedback in Hospital Medicine

	Examples
Based on principles of effective feedback	Based on direct observation Well-timed and expected Begin with positive feedback (ratio 6:1 ideal) Focused on specific, low-inference observable behaviors Provides an opportunity for the recipient to respond
Integrated into the clinical workflow	Encourage feedback at the time of handoffs and transitions of care Encourage nocturnists to provide positive and constructive feedback to the daytime providers Use EHR messaging for brief follow-up information for admitting providers
Provide time and space for feedback conversations	Communal team work room with the space for one-on-one conversations Optional follow-up form clinicians can send to the new team clinician to close the clinical feedback loop Optional feedback form for new clinician to send to former team clinician to provide feedback
Encourage reflection and the formation of an action plan	During annual review meetings with division leaders Voluntary pairs can be given guides for peer coaching conversations to reflect on any sources of feedback and develop action plans together

Table 2 Statements to Facilitate an Effective Peer Feedback Conversation

	Recommended statements
For clinician providing feedback	I really like the way you did ____. Can you tell me more about why you chose to do ____? How did you feel about that patient outcome? Is there anything you would have done differently? Based on prior experience, I might have done ____ instead. I'm not sure I understand that plan. Can you clarify for me what you mean?
For clinician receiving feedback	Can you tell me more about what you said went well? Is there anything you would have done differently? How have you seen other people manage this more effectively? Do you have any recommendations for me to improve that?

of ten peer reviewers is necessary to achieve adequate reliability of survey responses.[58] Thus, the volume of participants needed may limit this approach to larger hospital medicine programs.

Lastly, peer feedback can be incorporated into a clinician's balanced score card, or clinical dashboard, using data from a peer-to-peer survey.[59, 60] Balanced score cards were initially designed as a performance measurement tool for businesses to monitor company growth but have been used in hospital medicine to track group performance along domains reflective of practice values or pertinent outcomes.[59] Such tools for clinical performance are resource-intensive to build and maintain and provide uncertain benefit at the individual clinician level. While more data is needed to assess their efficacy, peer feedback could easily be incorporated to any group's pre-existing tool.

CONCLUSION

Peer feedback is a potentially useful tool to promote clinical excellence in hospital medicine. Existing evidence supports that varied forms of peer feedback are feasible, improve clinician confidence in delivering and receiving feedback, and subjectively improve clinical decision-making and skill development. This narrative review presents the rationale for and a framework for hospital medicine programs to use peer feedback to foster clinical excellence. Areas of future research include examining the prevalence of and describing the nature of peer feedback programs in use, standardizing and validating tools to assess peer feedback in hospital medicine, and assessing the impact of peer feedback on objective measures of clinical performance and patient outcomes.

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