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Original Research

A Departmentally Developed Agreement to Improve Faculty-Resident Feedback

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Introduction

Practice-based learning is a core competency. According to the Common Program Requirements of the Accreditation Council for Graduate Medical Education (ACGME), practice-based learning involves appraisal of one's care to allow self-evaluation and to pursue continuous improvement.[1] One important aspect to the development of practice-based learning is feedback from faculty members. The ACGME defines feedback as "ongoing information regarding one's performance, knowledge, or understanding."[1] Faculty feedback helps with the development of a resident's knowledge, professionalism, skills, and communication. Research on feedback is fairly consistent. Most faculty believe that they provide adequate feedback, and the residents receiving this feedback tend to view it as inadequate in both quantity and quality.[2] A systematic review concerning feedback describes 21 possible models.[3] All models have a few key aspects of successful feedback in common, which include self-assessment, commenting on areas for improvement, and suggestions. Another common aspect to the models is an alliance between the parties; sometimes, for an alliance to develop, an agreement must be achieved. Barriers to feedback exist. The reasons cited for an inability to provide feedback are time constraints and concern of damaging the faculty/resident relationship.[4] One of the core tenets of effective feedback is trust. The recipient must trust the person providing the feedback, and the provider must trust that the recipient is open to positively accepting the information without fear of reprisal. Feedback can trigger negative emotions and may activate a defense mechanism in both the recipient and provider.[5] As such, trust requires a mutual understanding between both the provider and the recipient of the feedback that may be established orally or in written format.

Concerns on feedback in the Department of Anesthesiology at Yale School of Medicine manifested by the 2021 annual resident survey by the ACGME, which assesses various aspects within the residency; one of the areas was feedback satisfaction. Using a scale of 1 to 5, where 5 is extremely satisfied and 1 is extremely dissatisfied, the score for the Department was 3.5 compared with a national average of 4.1. This area represented the lowest of all areas assessed on the survey, with 58% of respondents being satisfied. In meetings with the program director, the residents highlighted that feedback was fairly minimal and did not help them in their development into competent anesthesiologists. In meetings with the faculty and the program director, faculty did not trust that the feedback they offered to the residents would not result in a negative faculty evaluation. One means to address concerns between two parties to allow the development of an alliance is through an agreement where individuals abide to certain behaviors, and by abiding by those behaviors, expectations are outlined. The concept served as the basis for the development of the Feedback Agreement between faculty and residents.

Agreements have many benefits, such as better replication and an improved understanding of what is expected of both parties. Agreements have been used in medical education.[6] A learning agreement is a formal document in which students identify what will be learned, how it will be accomplished over a certain period of time, and the evaluation process. The formation of agreements is based on adult learning theory in which the student self-directs the knowledge, and the process of learning is handed over to the learner.[7] Unlike complete adult learning, a learning agreement incorporates the educator, highlighting their role as a guide in the process rather than a driver of education. An agreement helps with the development of a trusting relationship between the two parties. As such, the use of a Feedback Agreement becomes a possible option for improving feedback within the department. The resident remains the adult learner who will control the process of learning, and the faculty benefits from the removal of concern regarding retaliation for negative feedback.

Methods

The study was approved by the Internal Review Board of Yale-New Haven Hospital. Given that the study was educational in nature, informed consent was not required. Problem analysis was conducted in two phases. In the initial phase, faculty and resident volunteers were solicited. For the faculty, diversity in specialty was encouraged to ensure that all subspecialties of anesthesiology were included as well as those who do not have

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a subspecialization. The resident working group had representatives from each year of the residency as well as gender diversity. These distinct faculty and resident working groups met three times. The first meeting was to identify problems and to generate independent lists of facilitators and barriers to feedback. In the second meeting, the respective aspects of the agreement were generated and then edited at the next meeting. After both groups developed their sections, the two were combined into a single document. Subsequent meetings occurred with both resident and faculty members to work collaboratively to generate the final Feedback Agreement. The finalized Feedback Agreement was reviewed by all participants for approval before presentation to the Anesthesia Department. All faculty and residents within the Department of Anesthesiology had the ability to provide comments and suggestions. The Feedback Agreement that was developed and presented to the faculty and residents is presented in Appendix 1.

To measure resident attitudes toward feedback, the resident responses to the resident ACGME surveys for the academic years 2020 to 2021 and 2021 to 2022 were used. The resident survey is administered via a web-based system that allows the monitoring of programs. The ACGME requires a 70% response rate by programs and allows the program director to send reminders to residents during a 5-week period. The survey has eight content domains: resources, professionalism, patient safety and teamwork, faculty teaching and supervision, evaluation, education content, diversity and inclusion, and clinical education and experience. In the evaluation domain, satisfaction with faculty feedback is assessed. The areas assessed use a 5-point Likert scale, where 1 was extremely dissatisfied, 2 was dissatisfied, 3 was neither satisfied nor dissatisfied, 4 was satisfied, and 5 was extremely satisfied. The results are presented for the department, the specialty, and for all residents in graduate medical education. Survey results are available 2 months after survey completion. Other than knowing who completed the survey, the results are completely anonymous.

Responses of satisfied and extremely satisfied were used to indicate that feedback was effective; neutral responses were included in the dissatisfied group. Responses were averaged, and the percentage of responses that were either satisfied or extremely satisfied was reported by the ACGME and used for statistical analysis. Response rates for the department, the specialty, and all residents in ACGME programs combined were reported. Comparison of means was used as well as a chi-square test for categorical variables using Social Science Statistics.

Results

Residents in the Department of Anesthesiology at Yale-New Haven Hospital completed the survey for the academic year 2020 to 2021 and for the academic year 2021 to 2022. For 2020 to 201, there were 76 residents in the Department of Anesthesiology, and in 2021 to 2022, there were 83 residents. The response rate for 2020 to 2021 was 96%, and for 2021 to 2022, the response rate was 94%. Response rates for the specialty and nationally are reported in Table 1, and average satisfaction scores for the department, specialty, and nationally are presented in Table 2. The average satisfaction score for feedback from faculty for 2020 to 2021 was 3.5, with 58% of respondents being satisfied or extremely satisfied. This departmental score was statistically lower than the score for the specialty and for all residents nationally ($P < .05$). The average satisfaction score for feedback from the faculty for 2021 to 2022 was 4.0, with 74% of respondents being satisfied or extremely satisfied. This score statistically increased from the previous year ($P = .03$) and was not statistically different from the scores within specialty or nationally ($P > .05$).

Discussion

Learner agreements are not new in graduate medical education. Feedback is a nonsummative informal assessment of an observation of a learner that is presented in a nonjudgmental fashion. Feedback is helpful in the resident's progression to independent practice. Certain opinions are consistent concerning feedback among specialties, with the primary opinion being that learners feel that feedback is insufficiently provided, while faculty feel that they provide ample feedback.[8] Feedback is a skill and requires that both parties and the environment be considered. The relationship between the giver and receiver of the feedback is important; as stated by Wearne, "Feedback from a supervisor who has not established an educational alliance with the learner may be listened to, but is heard with a closed heart and mind."[9] In the majority of clinical situations, this alliance is informal. Several studies have examined a more formal alliance. In a study were internal medicine residents were randomized to a pocketcard feedback card and formal feedback session versus the usual practice, residents with the structured feedback reported sufficient feedback as well as improvement in skills.[10] Another study examined the oral agreement of clear expectations, identification of the data collected, and the plan for delivering feedback.[11] The Department of Anesthesiology chose a more formal approach of preparing a written agreement that was departmentally developed.

The development of the Feedback Agreement and its discussion improved resident satisfaction with faculty feedback as assessed using the ACGME resident survey. Improvement in resident satisfaction with feedback is important, as it indicates that the resident, as an adult learner, is satisfied with the guidance in their development into an anesthesiologist capable of independent practice. The ultimate goal of feedback is to help the residents improve their knowledge, skills, and abilities to become better medical practitioners. The intent of feedback is not to criticize; rather, effective feedback allows for learning and discussion to continuously improve a resident's skillset and practice. Effective feedback should positively reinforce procedural steps or specific care, making sure that the resident repeats these in the future. Feedback can often be misconstrued between individuals because of the tone or interpretation between giver and receiver; therefore, the value of feedback requires a firm foundation in trust. The resident must believe that the faculty member has the resident's best interest at heart during each interaction, while the faculty member must believe that the resident will reflect on the information and incorporate it into their practice-

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based learning. Feedback is effective in improving a physicians' technical skills, as demonstrated in a study of 38 surgical residents who received verbal feedback after either direct or video observation of suturing, and all improved their surgical suturing skills.[12] It is not technical skills alone that improve with feedback. In a study of 173 medical students who had their communication skills assessed by an Observed Structured Clinical Examination, scores improved with feedback, which translated into improved doctor-patient communication.[13]

Despite the proven value of feedback, there are recurring barriers to feedback. The most common recurring theme for not providing feedback is lack of sufficient time.[14] The process of giving and receiving feedback requires both individuals to reflect and to thoughtfully consider word choices and presentation tone. With a busy clinical environment, it is easy to see how feedback may have a lower priority due to patient care issues. Another barrier is the comfort level with providing timely and clear feedback. In a survey of 1258 faculty, Professors were more comfortable with feedback delivery than Assistant or Associate Professors, highlighting that feedback is a process that is developed over time, improving with practice.[15] Another major barrier to feedback is that if the feedback is negative, the resident may retaliate with negative comments on faculty evalautions.[16] This study did not measure the various barriers and the impact on feedback. The underlying premise was that a barrier existed resulting in low assessment on the ACGME resident survey. The agreement addressed some of the barriers such as time and environment. The benefit to an agreement is that many barriers are discussed in a single document. It is not possible from the current study to determine if the barriers were addressed.

Faculty evaluations by residents play a significant role in career advancement for those individuals on clinical tracks. With the increase in clinical demands for all physicians, medical schools have created promotion tracks specifically for their faculty in which promotion is dependent on time served and resident evaluations of faculty teaching; given the importance of resident teaching evaluations, fear of retaliation from negative evaluations may impact feedback.[16] As such, the fear of retaliation from negative feedback becomes real for an Assistant or Associate Professor who may be seeking promotion in this clinical-educator track. This concern regarding fear of retaliation was highlighted in a survey of Professors in Dermatology, who noted fear of retaliation was one of the primary reasons for not providing feedback.[17]

Issues in residency require communication between the faculty and the residents. For our improvement project, we acknowledged the concerns of the residents and the faculty in a public forum, allowing the development of a tool to help improve feedback and trust. The choice of an agreement is interesting, as it requires input, modification, and endorsement from both parties. In an agreement, both parties outline expectations and responsibilities, including the outcome if both parties follow the agreement. In higher education, agreements reflect many of the principles of adult learning in which the learner is the responsible individual directing learning, while the teacher assists the learner in achieving goals.[18] In this Feedback Agreement, a small group of volunteer residents from each class and a small group of the volunteer faculty from each subspecialty provided the initial structure. No faculty or residents were excluded from participation. By using volunteers, those individuals who are passionate and who have a clear goal were able to collaborate. It was important to have the faculty separate from the residents in the initial phase to allow individuals to feel free in sharing ideas and opinions. Once the initial outlines from the respective groups were completed, they were shared with the other group. While each group knew who participated, no aspect of the agreement could be attributed to a single individual, thus preserving anonymity. These requests were then reviewed and modified by the respective groups before producing a single document. Once the faculty and the residents approved their sections, they prepared a final document for review and endorsement by all department members. An agreement is similar to individualized learning plans for residents. A learning plan highlights goals and means for achieving the goals. The learning plan also outlines faculty expectations.[19] A learning plan differs from an agreement in that a learning plan has expectations for the learner and the faculty and an outcome for the learner only. There is no expected outcome for the faculty. An agreement has both expectations and outcomes for both learners and faculty. This Feedback Agreement exemplified the principles of adult learning in that the learner identified their needs and goals, while the faculty assisted in the development of residents without the concern of retaliation.

The collaborative approach was successful with a marked improvement in satisfaction with feedback from faculty. This improvement is notable, as a multi-institution study of intensive training of faculty in feedback, especially for professionalism and communication, demonstrated some improvement.[20] The current study requires continual assessment, as the agreement needs to evolve to reflect the concerns of the faculty and the residents. Of note, this improvement in satisfaction with feedback also resulted in improvement in other aspects of the survey, as residents documented an improvement in faculty interest in education and in faculty creating an environment of inquiry. It is hoped that this agreement will continue to improve satisfaction with feedback, as further improvement will take time because it requires a trust between both parties of the agreement. Although it is easy to attribute the improvement in satisfaction with feedback to the agreement, it is not possible to rule out the agreement development process as responsible for the improvement. The process involved discussion among the groups as well as focus on the agreement at faculty meetings. It may not be the agreement and may be due to the process of the development of the agreement. The hypothesis of the study was that a Feedback Agreement would improve resident satisfaction with feedback. The improvement occurred either from the agreement or from the development of the agreement.

Limitations to this study include that it was conducted at a single institution in a department in which feedback from faculty was the lowest rated aspect on the

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resident survey. The lack of inclusion of a survey before the agreement limits the extent of the conclusion. It is not possible to determine if the agreement was less well received by a specific class or a specific rotation. Furthermore, the faculty were not surveyed to determine their satisfaction with the agreement. Both groups had input into its development, and the document was reviewed by all before its release. The ACGME survey has undergone rigorous validation and reliability, with the intent of this study focusing on the lowest-scoring aspect of the resident survey. The faculty survey does not address feedback to the residents. The original goal of the study was to improve scores of resident satisfaction with feedback so that the Department of Anesthesiology at Yale School of Medicine was not significantly below scores for the specialty or nationally. The benefit of this study is the collaboration that occurred when two parties have concerns. The development of the agreement resulted in greater communication between the faculty and residents, which has benefits beyond resident feedback. The Feedback Agreement represents a mutually agreed upon document in which residents and faculty make a commitment to each other as professionals in providing and receiving feedback to help improve performance, communication, and reflection. The agreement addressed obstacles identified regarding effective feedback. Whether the agreement impacts long-term cultural improvements will require more time to assess.

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Abstract

Background: Feedback from faculty to residents is important for the development of the resident. Effective feedback between faculty and residents requires trust between the two parties. An agreement between faculty and residents was developed to determine whether it would improve resident satisfaction with feedback.

Methods: Groups of faculty and residents met to discuss expectations and barriers to feedback. Based on this information, the two groups developed a Feedback Agreement that was edited and approved by the entire Department of Anesthesiology. The Feedback Agreement was presented in meetings with the faculty and the residents. To assess satisfaction with feedback, the Accreditation Council for Graduate Medical Education resident survey was used, as it assesses resident satisfaction with various aspects of the program, and was compared before and after the agreement.

Results: The satisfaction scores with feedback before the Feedback Agreement were statistically lower than scores for the specialty and for all residents in training programs. Satisfaction rose from 53% of 76 respondents (average score of 3.5 in 2020 to 2021) to 74% of 78 respondents being satisfied or extremely satisfied (average score of 4.0 in 2021 to 2022; $P = .03$). This score was not statistically different from residents in Anesthesiology programs or all residents in training programs.

Conclusions: The development of a Feedback Agreement improved resident satisfaction with faculty feedback as assessed by the Accreditation Council for Graduate Medical Education resident survey.

Keywords: Feedback, resident survey, graduate medical education

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Tables

Table 1. *Response Rate to ACGME Survey*

	Number of Respondents	Percentage of Total Number (%)
2020 to 2021		
Department	73	96
Specialty[a]	6,541	94.8
Nationally[b]	143,844	95.7
2021 to 2022		
Department	78	93.9
Specialty[a]	6,555	92.5
Nationally[b]	146,183	94.4

[a] Specialty includes all residents in Anesthesiology Programs.

[b] Nationally includes all residents in ACGME Programs.

Table 2. *Satisfaction Scores with Feedback from Faculty*

	Average Satisfaction Score	Percentage Who Were Satisfied (%)
2020 to 2021		
Department	3.5	58
Specialty[a]	3.9	69
Nationally[b]	4.1	76
2021 to 2022		
Department	4.0	74
Specialty[a]	3.9	70
Nationally[b]	4.1	75

[a] Specialty includes all residents in Anesthesiology Programs.

[b] Nationally includes all residents in ACGME Programs.

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Appendix

Appendix 1. *Feedback Agreement*

Goal

Residents are expected to function as clinicians, teachers, and role models within the clinical environment. Reliable and valid assessments of resident performance, including professional behaviors, is crucial in developing as an anesthesiologist and enabling targeted remediation or recognition. Faculty Members benefit from reliable and valid assessments of their teaching, feedback, and fostering of an educational environment.

As a faculty member, I agree to

1. Provide honest daily feedback to the resident, focusing on strengths and areas for improvement
2. Provide specific examples to support my feedback
3. Refrain from statements concerning judgment
4. Always follow "You did great today" with "because"
5. Understand that feedback is formative, intending to help the resident
6. Provide summative evaluations that provide a global perspective and not focus on an isolated incident
7. Provide a useful discussion about the resident's learning goal
8. Be clear with the resident as to when feedback is being provided
9. Perform feedback in a private area to ensure privacy
10. Be receptive to a resident's feedback on education style

As a resident, I agree to

1. Understand that feedback represents an opinion of the faculty
2. Be receptive to the opinion and understand that the feedback is not personal
3. Provide teaching evaluations that truly reflect the individual's teaching ability and not reflect the feedback previously provided
4. Identify a key learning goal for the day and share this goal with the faculty the previous night
5. Speak to the attending if the feedback form or style was not helpful
6. Understand that the faculty member wants to help me succeed

As members of the Department of Anesthesiology, we, both residents and faculty, agree to

1. Understand that fatigue interferes with learning and feedback; if I am tired, I will let the other person know; If the other person informs of fatigue, I will delay the discussion for 24 hours
2. Understand that feedback may be in the form of email, text, phone call, or in person communication
3. Understand that feedback is not personal and should not be taken personally