



The Effect of Faculty Coaching on Resident Attitudes, Confidence, and Patient-Rated Communication: A Multi-Institutional Randomized Controlled Trial

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ABSTRACT

OBJECTIVE: Despite a national focus on physician–patient communication, there is a paucity of literature on how patient and family feedback (PFF) can be used as a tool to help residents learn communication skills. The purpose of this study was to assess the effect of coaching on residents' attitudes towards PFF, self-confidence in communication, and patient-rated communication skills.

METHODS: This was an institutional review board–approved, randomized-controlled trial with pediatric residents at 3 institutions from 2015 to 2016. Pre- and postintervention, residents completed a self-assessment of their attitudes and self-confidence in communication. PFF was collected for each resident using the Communication Assessment Tool, which has been validated in other medical disciplines. Intervention group residents reviewed their baseline PFF with a faculty coach; control group residents reviewed their PFF independently.

RESULTS: In total, 114 residents completed the study, 57 in each arm. Intervention group residents were significantly more likely to ask for PFF compared with control group residents

(mean change 0.36 vs -0.11 , $P = .01$). There were no other significant differences in resident attitudes, confidence, or patient-rated communication between groups. Both groups had increased self-confidence over time and with increasing post-graduate year level. Patient ratings of resident communication did not differ over time or between groups.

CONCLUSIONS: Residents who reviewed PFF with a faculty coach were significantly more likely to report they would ask patients for feedback than residents who reviewed PFF independently, suggesting review of feedback with a coach may enhance appreciation of patient feedback. Although self-confidence improved over time in both groups, patient ratings of resident communication skills were not significantly different over time or between groups.

KEYWORDS: coaching; communication skills; patient feedback; residency

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WHAT'S NEW

Residents who reviewed patient feedback with a faculty coach reported being more likely to ask subsequent patients for feedback compared with residents who reviewed patient feedback independently, suggesting the importance of coaching in helping learners value and seek patient feedback.

THE INSTITUTE OF Medicine¹ and the Triple Aim² both identify patient satisfaction as an important measure of safe and quality care. The Accreditation Council for Graduate Medical Education also emphasizes the patient

perspective by mandating resident feedback from multiple sources, including patients and families, as part of its educational programs.³ Eight of the 21 pediatric milestones pertain to professionalism and communication skills,⁴ and 4 (ICS1, ICS2, PROF1, PBLI4) in particular highlight the need for patient and family perspectives. However, there is little guidance for program directors on how best to gather and integrate patient feedback into education, which has resulted in wide variability in how feedback is gathered and shared with residents.

A model of self-regulated learning and feedback purports that external feedback provided to a learner who actively engages with this feedback results in improved self-

regulatory processes and externally observable outcomes.⁵ Crommelinck and Anseel⁶ also present a framework for understanding feedback-seeking behavior to improve personal performance that includes self-assessment, self-improvement, self-enhancement, and self-verification. These frameworks serve as a model for how external feedback can improve performance as well as self-reflection and self-regulation. With regard to physician–patient communication, several studies have shown that multisource feedback can be a positive force for improvement,^{6–9} especially when provided by a high-quality mentor.^{10–13} High-quality feedback allows the learner to reflect, which according to self-determination theory, may increase learners' intrinsic motivation.^{14–17} In 2014, we conducted a pilot study to examine how patient feedback delivered by a coach¹⁸ impacts resident confidence and attitudes.^{19,20} This research demonstrated that positive patient feedback was validating and valuable to residents; however, residents often discount negative feedback that does not align with their own perceptions and that they benefit from a coach who can help them learn from the feedback.²¹

To expand on this pilot investigation, and to gain additional power through a multi-institutional approach, we sought to compare 2 methods of delivering patient feedback to residents—with and without a faculty coach—to determine the effect on residents' attitudes toward patient feedback, confidence in their communication skills, and patient-rated communication skills. We hypothesized that residents who received patient feedback in discussion with a faculty coach would show a significant improvement in their attitudes, confidence, and patient-rated communication skills compared with residents who reviewed patient feedback independently.

METHODS

DESIGN AND SETTINGS

This was a randomized controlled trial conducted in 3 pediatric residency programs recruited from the Association of Pediatric Program Directors' Assessment Learning Community from June 2015 to June 2016. The study was formally reviewed and approved by all 3 institutions' internal review boards. The participating institutions, Lucile Packard Children's Hospital Stanford (Palo Alto, Calif), Phoenix Children's Hospital (Phoenix, Ariz), and Comer Children's Hospital (Chicago, Ill) are all tertiary freestanding children's hospitals with pediatric residency programs. Recruitment and baseline assessments took place between June and October 2015 with follow-up assessments between March and June 2016. All postgraduate year (PGY) levels of residents in categorical pediatrics, pediatric research pathways, and the first 2 years of the pediatrics–neurology program were invited to participate. Residents were recruited during residency meetings or by e-mail and were provided with a written description of the study. After providing informed consent, participating residents were then stratified by PGY level and randomized into the control group or intervention group. Stratification was used to balance the intervention and control groups by PGY level.

BASELINE RESIDENT SELF-ASSESSMENT

Participating residents completed a baseline survey between June and August 2015 to assess their attitudes toward patient feedback and their self-confidence in their patient communication skills ([Supplemental Self-Assessment Tool](#) online). The attitude questions were developed by the authors in conjunction with educational experts at Stanford and had been previously used during the pilot investigation, demonstrating content and face validity.^{19,20} Residents' self-confidence in their patient communication skills was assessed with the Communication Assessment Tool (CAT), which has evidence of validity from other medical disciplines.²² The CAT asks respondents to rate 14 elements of the physician's communication using a 5-point Likert scale with the following anchors: 1, poor; 2, fair; 3, good; 4, very good; and 5, excellent. Paper surveys were used during resident educational sessions, and residents who missed these sessions received an electronic survey. Demographic information was also collected, and all self-assessment data was entered into Qualtrics (Provo, Utah).

BASELINE PATIENT FEEDBACK

Research assistants at the 3 institutions were blinded to the residents' assigned study arm and gathered patient feedback from a convenience sample of eligible patients based on research assistant availability during the baseline data collection period (June–October 2015). Residents were not involved with selecting patients for feedback. Patients were eligible to complete the CAT if they spoke English or Spanish, were under the care of pediatric residents in the hospital or clinic setting, and could recognize their resident by name or photo. In the hospital, patients were recruited from a variety of acute and intensive care settings, including general pediatrics, subspecialty teams, and the emergency department. In the clinic, patients were recruited from resident continuity and urgent care clinics. For patients younger than 18 years of age, the parent or guardian provided informed consent for participation in the study, with patients older than 7 years also providing assent when possible. Patients 13 years of age and older were given the option to complete the patient feedback form themselves or have their parent/guardian complete the form. Patients, parents/guardians, or the research assistant completed the survey using paper forms or an electronic tablet. A goal of 12 patient feedback forms per resident was set based on the minimum recommended number of CATs in its validation study.²² All data gathered by paper forms were subsequently entered into Qualtrics.

In addition to the 14 items on the CAT, the patient feedback form included 1) 2 questions assessing how satisfied patients/families were providing feedback using the CAT and how satisfied they were that the institution values communication, 2) 2 open-ended questions asking what the resident did well and what the resident could improve on with regard to communication, and 3) demographic information about the patient and parent/guardian,

including primary language, race and ethnicity, age, sex, location of visit (clinic/hospital unit), number of days in the hospital (for hospitalized patients), and number of previous hospitalizations. We also recorded whether the patient, parent/guardian, or research assistant completed the patient feedback form and whether the patient had seen the resident before the current encounter.

INTERVENTION

After the baseline collection period, all residents received an aggregated summary of their patient feedback via e-mail in January 2016 with instructions to contact their program leaders with any questions. For the residents in the intervention group, a faculty coach or advisor (“coach”) who had been previously selected at each institution to advise or coach residents was oriented to the research study and its aims. Coaches then performed 2 direct observations during the intervention period (October 2015–January 2016) and gathered patient feedback from these 2 encounters using the patient feedback form ([Supplemental Coach Discussion Template](#) online). The coach then met with the intervention group resident (January–March 2016) for a structured dialogue using a discussion template. During this meeting, coaches 1) asked residents to reflect on their strengths and challenges with patient communication using examples, 2) asked residents if they recalled receiving the aggregated summary patient feedback and if they reviewed it, 3) reviewed the aggregated summary of baseline patient feedback and the patient feedback the coach obtained after the two direct observations, and 4) asked the residents to identify a new strategy they would use to improve communication with patients/families. No specific communication skill training was provided by the coach during this discussion.

Coaches for residents in both the intervention and the control group were instructed to proceed with their standard advising protocol that existed outside of this study protocol, including semiannual review meetings with an advisor and, for one site, periodic direct observation with feedback by a coach focusing on general clinical skills. Residents in the intervention group had the addition of coach-gathered patient feedback from 2 patients and a structured dialogue about patient feedback, whereas the control group did not.

FOLLOW-UP ASSESSMENTS

Between March and June 2016, all participating residents completed a paper or electronic follow-up self-assessment survey that was identical to the baseline self-assessment. In addition, research assistants gathered postintervention patient feedback on all participating residents in a similar fashion.

OUTCOME MEASURES

The intervention and control group residents were compared by group and subsequently by PGY level on

baseline and follow-up measures of resident attitudes, confidence, and patient-rated communication skills.

SAMPLE SIZE

We conducted a power calculation based on results from our pilot study^{19,20} in which the residents’ self-confidence in their communication skills as measured by the mean CAT summary score in each group was normally distributed with a standard deviation of 1. We determined that a sample size of 64 residents per group or 128 total residents would provide 80% power to detect a difference of 0.5 points in the mean score of self-confidence in communication skills between the intervention and control groups. The Type I error probability associated with the test of this null hypothesis is 0.05.

DATA ANALYSIS

Resident self-assessment was measured on a 5-point Likert scale. We treated self-assessment scores as continuous variables bound between 1 and 5. For these analyses, we used a difference-in-differences strategy with *t* tests to evaluate the hypothesis that the intervention group had a significantly different change in attitudes and self-confidence from the control group. We first made a variable that represented the change in attitude or confidence for each physician (score at follow-up minus score at baseline). We then averaged the change variables within groups to generate a mean change score for the control and intervention groups. Change variables approximated a normal distribution, and both groups had similar variance. We then performed the *t* test on the mean change score and corrected for multiple testing using the Holm–Bonferroni correction.

Patient feedback was reported as a “percent excellent” score as used in the CAT paper.²² A “100% excellent” score indicated a score of 5 of 5 for all 14 questions on the CAT; a “0% excellent” indicated no scores of 5 for any of the 14 questions. Since each resident had varying numbers of patients who gave feedback, all patient feedback scores at the physician level were averaged, resulting in an individual mean. We then calculated a change in percent excellent score, averaging the percent excellent score at the group level. We used *t* tests to evaluate differences in change in percent excellent scores between groups. We used SAS University Edition (Cary, NC) for all data analyses.

RESULTS

Of 294 total residents at the 3 institutions, 253 (86.1%) were eligible and willing to participate in the study. We allocated 126 to the coaching intervention group and 127 to the control group ([Figure](#)). Of those, 119 intervention group residents received the allocated intervention. A total of 57 (45.2%) intervention group residents and 57 (44.9%) control group residents had complete data for analysis, including baseline and follow-up self-assessments and baseline and follow-up patient feedback. The groups who had complete data

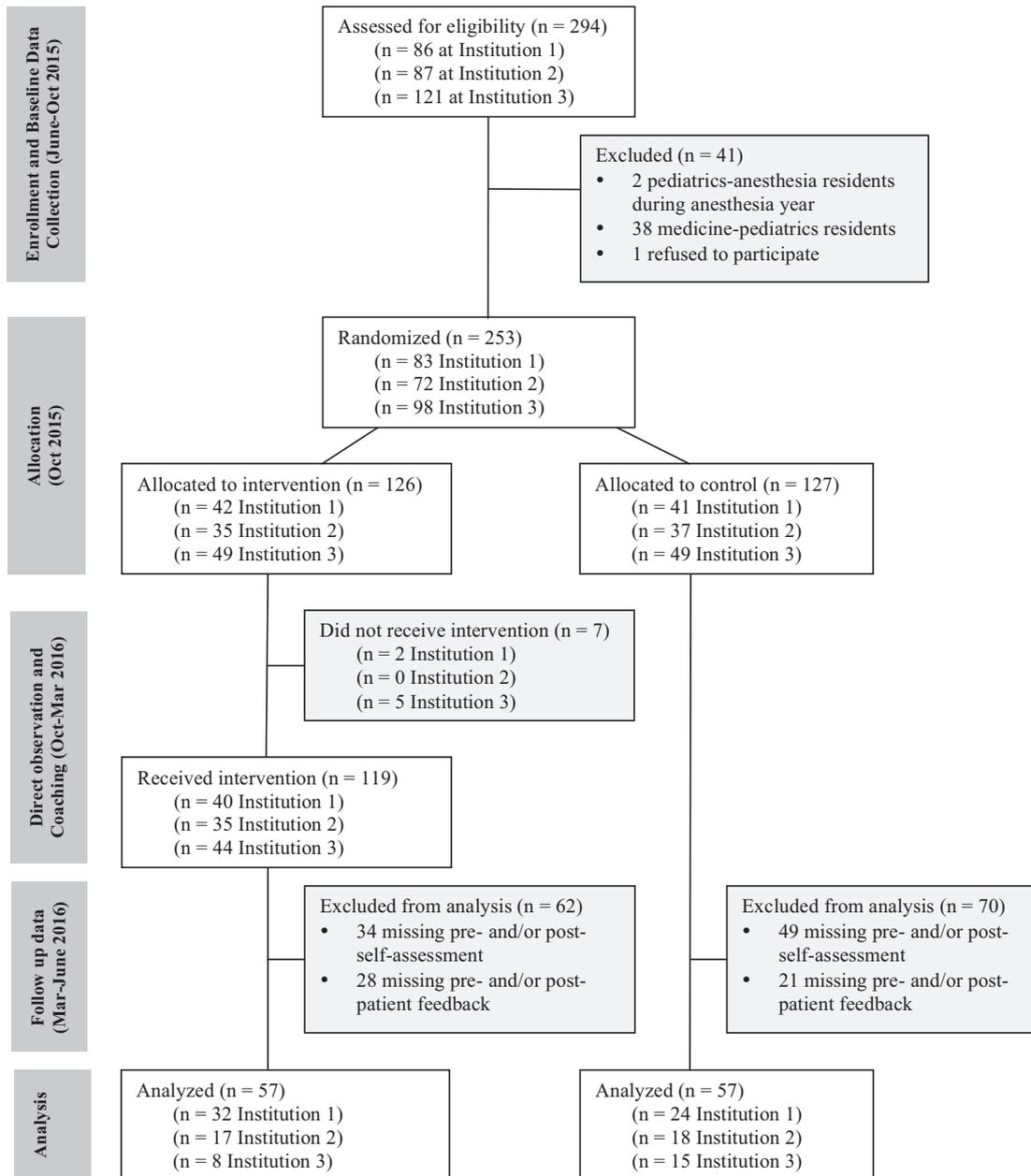


Figure. Flowchart of enrollment, allocation, follow-up, and analysis of the randomized controlled trial examining the effect of a coaching intervention vs electronic patient feedback on residents' attitudes toward patient communication, self-confidence in their communication skills, and patient-rated communication skills.

for analysis were similar with regard to sex, race, and primary language to those who did not have complete data for analysis. There was a greater proportion of interns and lower proportion of residents at institution 3 with complete data for analysis.

The demographic characteristics of the residents included in the analysis are shown in [Table 1](#). Nearly one half of participants analyzed were PGY1s, and the majority were female, in the categorical pediatrics track, primarily English-speaking, and white. There were no statistically significant differences between characteristics of the control and intervention group residents and no significant differences in the numbers of patients providing feedback to each group.

The demographic characteristics of the patients who contributed patient feedback to the residents can be found in [Supplementary Table 1](#). Overall, there was no significant difference in the number of patient feedback forms in the intervention compared with the control group at baseline (mean 7 vs 5.68), or at follow-up (mean 7.8 vs 7.7). There was a significantly greater percentage of pediatric patients who provided the feedback in the intervention group compared with the control group (n = 66, 13.2%, vs n = 25, 7.1%), and a greater percentage of parents/guardians who provided the feedback in the control group compared with the intervention group (n = 273, 78.0%, vs n = 350, 69.9%, $P = .009$). In addition, there was a greater percentage of African American contributors to patient

Table 1. Demographic Characteristics of Residents Included in Analysis

Characteristic	Control Group N (%)	Intervention Group N (%)	P Value*
Total	57	57	
Institution			.19
Institution 1	24 (41.1)	32 (56.1)	
Institution 2	18 (31.6)	17 (29.8)	
Institution 3	15 (26.3)	8 (14.0)	
PGY level			.76
PGY1	28 (49.1)	27 (46.7)	
PGY2	17 (29.8)	17 (28.3)	
PGY3 or greater	11 (19.3)	13 (25.0)	
Data missing	1 (1.8)	0 (0.0)	
Residency track			.23
Categorical	48 (84.2)	46 (80.7)	
Other track (child neurology or research/scholarship)	7 (12.3)	11 (19.3)	
Data missing	2 (3.5)	0 (0.0)	
Sex			.52
Female	41 (71.9)	39 (68.4)	
Male	15 (26.3)	18 (31.6)	
Data missing	1 (1.8)	0 (0.0)	
Primary language			.49
English	52 (91.2)	55 (96.5)	
Spanish	1 (1.8)	0 (0.0)	
Other	2 (3.5)	1 (1.8)	
Data missing	2 (3.5)	1 (1.8)	
Race/ethnicity			
American Indian/Alaska Native	1 (1.8)	0 (0.0)	>.99 [†]
Asian	12 (21.1)	11 (19.3)	.82
Black or African American	5 (8.8)	3 (5.3)	.72 [†]
Hispanic or Latino	4 (7.0)	3 (5.3)	>.99 [†]
Native Hawaiian/Pacific Islander	0 (0)	1 (1.8)	>.99 [†]
White	32 (56.1)	34 (59.6)	.70
Other	1 (1.8)	4 (7.0)	.36 [†]
Data missing	3 (5.3)	2 (3.5)	
Baseline number of CATs (mean per resident, CI)	350 (5.68, 4.58-6.79)	501 (7, 5.87-8.13)	.09

PGY indicates postgraduate year; CAT, Communication Assessment Tool; and CI, confidence interval.

*P values calculated using the Chi-square test except where denoted otherwise.

[†]P value calculated using the Fisher exact test.

feedback in the control group (n = 89, 25.4%) compared with the intervention group (n = 83, 16.6%, $P = .001$).

RESIDENT ATTITUDES TOWARD PATIENT FEEDBACK AND PATIENT COMMUNICATION

Residents in the intervention group were more likely than control group residents to ask for patient feedback after the intervention (2.96 vs 2.73, $P = .01$, Table 2). Other attitudes were not significantly different between groups and did not significantly change over time. Specifically, residents generally agreed strongly that patient feedback is important to their professional development and that patient communication is important for providing quality patient care. They also agreed that patient feedback increases their confidence in their communication skills and changes the way they communicate with future patients.

RESIDENT CONFIDENCE IN COMMUNICATION SKILLS

Both groups showed increases in self-confidence in their patient communication skills from baseline to follow-up, but there was no significant difference between

groups (Table 3). Resident confidence also increased with increasing PGY level.

PATIENT-RATED COMMUNICATION SKILLS

There was no significant difference in patient-rated communication scores between groups (Table 4). There was also no significant difference in patient-rated communication scores between baseline and follow-up or by PGY level. At baseline, 14 residents (12%) were already rated 100% excellent by patients; this included 8 residents in the control and 6 in the intervention group.

DISCUSSION

In this study, we found that residents in both the control and intervention groups showed increased self-confidence in their communication skills throughout the study period and with increasing PGY level, but there were no significant differences between the control and intervention groups. This increase in confidence over time appeared to be the result of experience and maturation across groups and may represent overall improvements in residents' communication skills during residency, as is one of the

Table 2. Resident Attitudes Toward Patient Feedback and Patient Communication

	Control Group			Intervention Group			Mean Change Between Groups (CI, <i>P</i> Value) [†]
	Preintervention Mean	Postintervention Mean	Mean Change (CI) [*]	Preintervention Mean	Postintervention Mean	Mean Change (CI) [*]	
Receiving patient/guardian feedback is important to my professional development [‡]	4.45	4.57	+0.13 (−0.03 to 0.29)	4.48	4.48	0 (−0.19 to 0.19)	−0.13 (−0.38 to 0.13, .32)
Communication with patients/guardians is important to quality patient care [‡]	4.86	4.88	+0.02 (0.08-0.12)	4.86	4.77	−0.11 (−0.27 to 0.05)	−0.13 (−0.31 to 0.06, .18)
I ask patients/guardians for feedback on my communication skills [‡]	2.82	2.73	−0.11 (−0.32 to 0.10)	2.60	2.96	+0.36 (0.06-0.66)	+0.47 (0.10-0.83, .01)
Patient/guardian feedback increases my confidence in my communication skills [‡]	3.86	3.93	+0.04 (−0.17 to 0.24)	3.98	4.07	+0.07 (−0.13 to 0.27)	+0.03 (−0.25 to 0.32, .81)
Patient/guardian feedback changes the way I communicate with other patients/guardians [‡]	4.14	4.14	−0.02 (−0.24 to 0.21)	4.07	4.09	+0.02 (−0.22 to 0.25)	+0.03 (−0.29 to 0.36, .83)

CI indicates confidence interval.

*Mean change within groups indicates the mean difference between the pre- and postintervention attitude scores for physicians within the group.

†Mean change between groups indicates the difference between the intervention group mean change and the control group mean change, analyzed using *t* tests. A positive number indicates that the intervention group increased more than the control group; a negative number indicates that the control group increased more.

‡All items measured by Likert scale 1–5 with 1 = completely disagree, 3 = neutral, 5 = completely agree.

Table 3. Resident Self-Confidence* in Communication Skills by PGY Level

Composite Mean† (All Questions)	Control Group			Intervention Group			Mean Change Between Groups (CI, P Value)§
	Preintervention	Postintervention	Mean Change (CI)‡	Preintervention	Postintervention	Mean Change (CI)‡	
All residents	3.67	3.76	+0.09 (-0.01 to 0.18)	3.69	3.82	+0.12 (0.01-0.24)	+0.04 (-0.11 to 0.18, .62)
PGY1	3.60	3.72	+0.10 (-0.04 to 0.24)	3.65	3.73	+0.06 (-0.15 to 0.28)	-0.04 (-0.29 to 0.21, .76)
PGY2	3.69	3.72	+0.03 (-0.19 to 0.25)	3.66	3.86	+0.20 (0.03-0.37)	+0.17 (-0.11 to 0.44, .23)
PGY3 or greater	3.80	3.91	+0.11 (0.00-0.22)	3.80	3.96	+0.16 (0.01-0.31)	+0.05 (-0.13 to 0.23, .58)

PGY indicates postgraduate year; and CI, confidence interval.

*Self-confidence measured by self-assessment using the 14-item Communication Assessment Tool, with 1 = poor and 5 = excellent.

†Composite mean indicates the mean for all 14 items on the Communication Assessment Tool.

‡Mean change within groups indicates the mean difference between the pre- and postintervention self-confidence scores for physicians within the group.

§Mean change between groups indicates the difference between the intervention group mean change and the control group mean change, analyzed using the *t* test. A positive number indicates that the intervention group increased more than the control group; a negative number indicates that the control group increased more.

goals of residency training. This increase in confidence over time had a greater effect than the coaching communication meeting that incorporated the coaches' 2 direct observations and patient feedback data. Interestingly, patient-rated communication, as measured by the CAT, did not measurably change for residents in the intervention or control groups and did not correlate with PGY level or time during the academic year.

In general, residents had positive attitudes toward receiving patient feedback and developing strong patient communication skills. However, residents were neutral (score of 3) or disagreed (score of 2) with the statement, "I ask patients/guardians for feedback on my communication skills." In the group that received coaching, residents' responses to this question improved slightly, whereas the intervention residents' responses decreased, and this finding was significant. This finding should be interpreted with caution, as it suggests intervention residents may be more neutral (less likely to disagree) about asking for patient/guardian feedback than the control group residents. Still, our qualitative analysis supports that the coaching intervention made a true difference in residents' attitudes, and that coaches may have helped residents contextualize and learn from both positive and negative patient feedback.²³ Feedback with coaching incorporates reflection, feedback on one's reflections, and goal-setting, which can improve residents' self-regulation and active application of feedback.⁵ The observed increase in residents seeking feedback aligns with the frameworks of self-motives,⁶ self-regulation,⁵ and self-determination theory,¹⁷ which recognize that learner application of feedback is associated with increased motivation, increased self-regulation, and increased reflection and self-assessment.

It is important to note that we were unable to collect the desired number of CATs per resident according to the CAT validation study,²² which may have underpowered our study to detect a measurable difference in patient-rated communication skills between groups, possibly biasing toward the null hypothesis. The CAT also may not have fully captured residents' communication skills because of its ceiling effect. It is also conceivable that we needed a more robust intervention to demonstrate a change in confidence or performance, or that we needed a different assessment of performance to adequately detect a change based on the intervention. It is possible that quantitative tools may not optimally capture what residents learn from a coach about communication, which may be better described through qualitative measures.²³ As such, we did gather qualitative data using resident focus groups to determine changes in residents' perceptions of patient feedback and communication. These data are presented elsewhere.²³

There are several limitations to this study. Although geographically diverse, the 3 institutions included in this study may not be representative of all pediatrics training programs. There were a significant number of residents who lacked complete data, either because they did not receive patient feedback at both baseline

Table 4. Patient Feedback Scores* by PGY Level

Composite Mean Percent Excellent Score [†] (All Questions)	Control Group			Intervention Group			Mean Change Between Groups [§] (CI, P Value)
	Preintervention	Postintervention	Mean Change [‡] (CI)	Preintervention	Postintervention	Mean Change [‡] (CI)	
All residents	77.4	80.8	+3.4 (−3.5 to 10.3)	77.8	78.0	+0.2 (−6.9 to 7.4)	−3.2 (−13.0 to 6.7, .55)
PGY1	74.5	80.3	+5.8 (−3.3 to 14.9)	79.4	79.1	−0.4 (−9.7 to 8.9)	−0.61 (−18.8 to 6.6, .34)
PGY2	83.4	76.0	−7.5 (−20.7 to 5.8)	74.5	77.1	+2.6 (−13.2 to 18.4)	+10.0 (−9.8 to 29.9, .31)
PGY3 or greater	81.9	87.9	+6.0 (−4.2 to 16.2)	78.6	76.9	−1.7 (−16.8 to 20.2)	−7.7 (−28.8 to 28.7, .46)

PGY, indicates post-graduate year; and CI, confidence interval.

*Patient feedback scores measured using the 14-item Communication Assessment Tool, with 1 = poor and 5 = excellent.

†Composite percent excellent score based on percentage of the 14 items rated as 5 (excellent) for each individual resident, then averaged by PGY level.

‡Mean change within groups indicates the mean difference between the pre- and post-intervention patient feedback percent excellent scores for physicians within each group.

§Mean change between groups indicates the differences in change in percent excellent score between groups using *t* tests. A positive number indicates that the intervention group increased more than the control group; a negative number indicates that the control group increased more.

and follow-up, or because they did not complete both the baseline and follow-up self-assessments. We suspect that the lower proportion of residents with complete data from institution 3 was related to a lack of research assistant support and difficulty gathering complete data at that site. We suspect the greater proportion of interns with complete data may have been related to increased intern presence on clinical rotations and more front-line roles of interns compared with upper level residents. We also found a greater proportion of parents/guardians and African-Americans that provided patient feedback in the control group than the intervention group, which may have impacted the outcomes of this study, although data on the impact of these factors are lacking. It is also possible there was cross-contamination between intervention and control groups, such as by control group residents receiving informal coaching outside of the study. Finally, although coaching communication meetings for the intervention group residents were standardized with a discussion template and orientation for the coaches, some coaches may have had more in-depth discussions with their residents than other coaches.

Despite these limitations, this is the first multisite study in pediatrics to evaluate the effect of faculty coaching on resident attitudes toward patient communication, resident self-confidence in their communication skills, and patient-rated communication skills. We found that residents who received coaching based on patient feedback were more likely to self-report asking patients for feedback than residents who did not receive coaching. We also conjecture that quantitative measures may need to be supplemented with qualitative measures to adequately assess changes in residents' communication skills following review of patient feedback, and that perspectives from both patients and residents are important to capture these changes.

We believe it is critical for faculty to coach residents to seek, reflect on, and learn from patient feedback, as is consistent with the self-motives and self-regulation frameworks. As educational leaders, we need to further refine patient feedback tools and define methods for coaching based on patient feedback to help trainees learn to communicate effectively, with the ultimate goal of providing consistently high-quality, safe, and effective patient care.

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SUPPLEMENTARY DATA

Supplementary data related to this article can be found online at <https://doi.org/10.1016/j.acap.2018.10.004>.

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