

## Narrative Feedback to Family Medicine Faculty: A Content Analysis

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### Introduction

Peer and learner evaluations of faculty in graduate medical education are critical for performance improvement, promotion, and resource allocation.<sup>1</sup> Although data are limited, studies show that feedback from residents may help faculty improve teaching.<sup>2,3</sup> Narrative feedback, in particular, can provide important contextual information.<sup>4</sup> Existing reviews of narrative feedback from residents to faculty show that the feedback is often relevant, but not specific. This limits the utility of feedback to improve teaching.<sup>5-7</sup>

Multiple feedback tools exist to evaluate clinical teaching. However the likelihood of capturing narrative feedback varies among these tools.<sup>1</sup> Barriers to the use of feedback tools include time-consuming processes, issues with accessibility, reliance upon rating scales, and the retrospective nature of solicited feedback. Mechanisms to solicit feedback are more effective when they do not require significant changes to workflow.<sup>8</sup> To address these barriers, a mobile application, the Faculty Feedback Facilitator (F3App), was developed to allow for real-time capture of narrative feedback for faculty in the medical education setting. In 2017 to 2018, the F3App was piloted across eight family medicine residency programs. Training and technical assistance were provided to programs on implementation and best practices for feedback. Participating programs reviewed the F3App positively.<sup>9</sup>

This study expands the initial pilot<sup>9</sup> by qualitatively examining the narrative feedback from the same eight programs.

### Methods

#### *Setting and Data Collection*

We included narrative feedback observations entered about faculty by residents and peers from July 1, 2019 to June 5, 2020 across the eight programs in the analysis. Program characteristics are shown in Table 1. Resident observations were anonymous by default per the Accreditation Council for Graduate Medical Education (ACGME), however learners were able to deselect this option.<sup>10</sup> Faculty peer feedback was not anonymous in order to foster transparency and trust, important elements in a robust culture of feedback.<sup>11</sup> Programs were offered training on the Situation-Behavior-Impact feedback model and tools were implemented at the discretion of the program.<sup>12</sup>

## Analysis

Using a deductive content analysis approach, we coded each observation as “positive,” “constructive,” and “actionable.”<sup>13</sup> The categories were not mutually exclusive and are based on previous work.<sup>14</sup> We also coded observations according to perceived environment: “clinic,” “inpatient,” or “general/unknown.” Table 2 includes coding definitions.

The four coders conducted an initial independent coding of a subset of observations and then reviewed the codes as a team to create a shared understanding of the coding scheme. Next, the data set was divided in half and two team members coded each half. Upon completion, the full coding team discussed coding discrepancies to achieve consensus.

The University of North Carolina Institutional Review Board approved this study (IRB # 20-0324).

## Results

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Three hundred thirty unique observations were generated during the study. Table 3 shows the coding summary. Thirty-three percent (110/330) of the observations were made by peer faculty and 67% (220/330) were made by residents. Most observations were positive (98%) and actionable (88%). Observations were made in clinic, inpatient, and general educational settings. Sample entries for each observation category are listed in Table 2.

Table 4 compares the types and settings of observations by faculty and residents. There was little variability in the types of observations recorded by faculty vs residents.

Table 5 compares observations submitted anonymously vs nonanonymously by residents. Sixty-one percent (134/220) of the observations were submitted anonymously. All eleven (100%) constructive comments were submitted anonymously.

## Discussion

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Based on literature review, this is the first qualitative analysis of feedback to medical faculty from residents and peers using a mobile application. The findings demonstrate that the mobile interface yielded primarily positive and actionable/specific narrative feedback. This type of feedback encourages and reinforces positive behaviors and is consistent with best practices for providing feedback.<sup>15-18</sup> Prior studies show that narrative feedback is often not specific.<sup>5-6</sup>

The few constructive comments from learners were submitted anonymously. Learners want the option to give anonymous feedback.<sup>19-20</sup> Learners did choose to deselect the anonymous default for some positive feedback.

This study has limitations. First, the design does not allow for a conclusion about why the majority of narrative observations were actionable/specific (ie, causality). Second, we only included residencies that participated in the pilot, some of which incorporated training on providing feedback. This may have positively skewed the number of actionable entries.

In conclusion, the use of a mobile application-based tool allows for collection of narrative feedback by learners and peers for faculty in a variety of settings. The feedback provides faculty with actionable and constructive suggestions for how to improve and/or continue their current teaching methods.

## Tables and Figures

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**Table 1: Program Characteristics**

Program Setting	Program A	Program B	Program C	Program D	Program E	Program F	Program G	Program H	Median
	University Department	Community Hospital	University Department	University Department	Community Hospital	Community Hospital	University Department	University Department	
	Program Demographics								
Number of faculty	11	18	40	25	7	15	6	4	13
Number of residents	30	39	32	24	18	26	27	20	26.5

**Table 2: Coding Definitions and Selected Examples From F3App Entries**

	Code	Code Definition	Example Entries
Types of observations	Positive	One that was positive in tone and/or was reinforcing in nature	<p>Dr [name] has given me advice on several occasions on charting, dot phrases and templates for my notes. He usually gives this feedback immediately after the visit or the next day, so it is fresh and quick feedback. And relatable. Things that I will use again. I really find this helpful and find this improving my efficiency.</p> <p>I really appreciate [name]'s willingness and enthusiasm to teach! She acknowledged a knowledge deficit I had after a delivery without making me feel self-conscious about it and took the time to give me some specific, helpful feedback even though it was the middle of the night.</p>
	Constructive	An observation that recognized an opportunity and/or made suggestions for improvement	<p>Do well: I like that Dr. [name] points out the correct billing/LOS when applicable. Keeps the precepting time efficient and short. Do to improve: Follow-up with residents at end of clinic if they need any help or clarification. This might also be a time for teaching, if needed.</p> <p>I really enjoyed working with [name]. She was supportive and definitely allowed me to give input on care decisions for our patients. My one constructive feedback is that she could be better at allowing residents to really take ownership over their patients and allow them to take lead during CAP rounds instead of making decisions in patients during CAP round before asking the resident about their plan or thought process.</p>
	Actionable	Those that included enough specific detail to allow the faculty member to know they should either repeat this behavior in the future, or provided specific suggestions about what to do differently	<p>Would benefit from communication skills training for clinic communications and when providing feedback.</p> <p>Dr. [name] was a wonderful attending during the call nights we spent together on [inpatient] the past few weeks. She was very available for questions throughout the night and helped me and my co-residents think through some very complex patients. Even a simple hip fracture patient provided the opportunity for her to give us some great teaching. I learned so much from working with her!</p>
Settings of observations*	Clinic	Occurred in the ambulatory care clinical setting	
	Inpatient	Occurred on an inpatient service	
	General/unknown	Occurred in general educational settings (e.g. family medicine conference) or coders were unable to determine the specific setting	

\* Individuals using the app do not report the specific setting. We coded the response for location based on the content of the narrative response.

**Table 3: Coding Summary of F3 Observations**

	Frequency	% of Total
<b>Type of Observer</b>		
Faculty	110	33
Resident	220	67
<b>Type of Observation*</b>		
Positive	324	98
Constructive	19	6
Actionable	292	88
<b>Setting of Observation*</b>		
Clinic	124	38
Inpatient	66	20
General/Unknown	141	43

\* Observation categories are not mutually exclusive (eg, a given entry may be both positive and actionable). All of the comments were coded with at least one observation type and one setting.

**Table 4: Coding Summary Comparing Faculty and Residents**

	Faculty Observations (n=110)		Resident Observations (n=220)	
	Frequency	%	Frequency	%
<b>Type of Observation*</b>				
Positive	109	99	215	98
Constructive	8	7	11	5
Actionable	96	87	196	89
<b>Setting of Observation*</b>				
Clinic	25	23	99	45
Inpatient	13	12	53	24
General/unknown	73	66	68	31

\* Observation categories are not mutually exclusive (eg, a given entry may be both positive and actionable). All of the comments were coded with at least one observation type and one setting.

**Table 5: Comparison of Observations by Residents Submitted as Anonymous vs Nonanonymous**

	Anonymous Observations (n=134)		Nonanonymous Observations (n=86)	
	Frequency	%	Frequency	%
<b>Type of Observation*</b>				
Positive	129	96	86	100
Constructive	11	8	0	0
Actionable	115	86	81	94
<b>Setting of Observation*</b>				
Clinic	59	44	40	47
Inpatient	30	22	23	27
General/unknown	45	34	23	27

\* Observation categories are not mutually exclusive, (eg, a given entry may be both positive and actionable). All of the comments were coded with at least one observation type and one setting.

## Acknowledgments

**Conflicts of Interest:** Cristen Page, a coinvestigator on this study, serves as chief executive officer of Mission3, the educational nonprofit organization that has licensed the tool from which the data from this study were acquired (F3App), from the University of North Carolina. If the technology or approach is successful at some point in the future, Dr Page and UNC Chapel Hill may receive financial benefits.

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