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Impact on Participants of Family Connect, a Novel Program Linking COVID-19 Inpatients' Families With the Frontline Providers

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Abstract

Purpose: With clinical volumes decreased, radiologists volunteered to participate virtually in daily clinical rounds and provide communication between frontline physicians and patients with coronavirus disease 2019 (COVID-19) and their families affected by restrictive hospital visitation policies. The purpose of this survey-based assessment was to demonstrate the beneficial effects of radiologist engagement during this pandemic and potentially in future crises if needed.

Methods: After the program's completion, a survey consisting of 13 multiple-choice and open-ended questions was distributed to the 69 radiologists who volunteered for a minimum of 7 days. The survey focused on how the experience would change future practice, the nature of interaction with medical students, and the motivation for volunteering. The electronic medical record system identified the patients who tested positive for or were suspected of having COVID-19 and the number of notes documenting family communication.

Results: In all, 69 radiologists signed or cosigned 7,027 notes. Of the 69 radiologists, 60 (87.0%) responded to the survey. All found the experience increased their understanding of COVID-19 and its effect on the health care system. Overall, 59.6% agreed that participation would result in future change in communication with patients and their families. Nearly all (98.1%) who worked with medical students agreed that their experience with medical students was rewarding. A majority (82.7%) chose to participate as a way to provide service to the patient population.

Conclusion: This program provided support to frontline inpatient teams while also positively affecting the radiologist participants. If a similar situation arises in the future, this communication tool could be redeployed, especially with the collaboration of medical students.

Key Words: Communication, COVID-19, volunteer

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INTRODUCTION

On March 18, 2020, as coronavirus disease 2019 (COVID-19) case volume at NYU Langone Tisch Hospital began to rise dramatically, the State of New York Department of

Health imposed a restrictive hospital visitation policy to increase safety for staff and patients [1]. With families no longer at the bedside, combined with a dramatic increase in inpatient volume (with a peak COVID-19 census of 562 inpatients and up to 72 new admissions in a single day), frontline teams were largely unable to contact families with daily clinical updates.

Concurrently, because of the establishment of the New York State on PAUSE policy [2] and ban on elective procedures [3,4], the NYU Langone Tisch radiology department's daily imaging volume decreased by 68% from its baseline at the height of the surge. With the new abundance of time, the radiologists could volunteer as communication liaisons connecting the inpatient teams with patient families. Together, under the leadership of the hospitalist group, the radiologists and hospitalists

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convened to build the Family Connect (FC) program from concept to implementation within a week. Volunteers participated in virtual rounds with the inpatient care teams and subsequently contacted the patients' families each day to update them on their loved one's clinical status and plan. This assistance alleviated the responsibility from the extremely busy hospitalists and intensivists, thus allowing them to focus on providing clinical care to an exponentially growing COVID-19 inpatient census. Furthermore, the volunteers provided relief to family members who were under the enormous strain of resultant separation from patients afflicted with this new pathogen.

The aim of this study is to demonstrate the beneficial effects of radiologist engagement during this pandemic but also in the future crises if the need for such a program arises again.

METHODS

Description of Program

After the inception of the idea by internal medicine leadership, 233 attending radiologists were invited to participate in the FC program. In all, 69 radiologists (29.6% of all radiologists in the department) volunteered in the program for a minimum of 7 days, including academic and outpatient attending radiologists.

Before implementation of the program, participating radiologists underwent training on the basics of COVID-19 diagnosis and treatment, chart review and documentation, and appropriate family communication. Most radiologists were paired with medical students, who were restricted from direct patient care and workplace learning by the pandemic. With the radiologist serving as an attending preceptor, the pairs covered between 6 and 10 patients ranging from intensive care to acute care. Responsibilities included the following:

1. Perform thorough chart review to obtain up-to-date clinical information including COVID-19 course and treatment regimens.
2. Attend virtual interdisciplinary team rounds to directly verify the patient's clinical condition and understand the short- and long-term treatment plan with the frontline clinical team, social workers, physical therapists, and nursing staff.
3. Call and update the patient's health care proxy to provide an update of the patient's medical condition and the plan for the day. In addition, the communication provided reassurance that the patient was receiving proper attention and care during the hospital stay and that an avenue of communication was open, which helped facilitate a safe discharge plan.

4. Document the discussion in the electronic medical record using a templated note entitled "Care Coordination" to ensure that all members of the care team were updated. Students and radiologists conveyed the information to families and also conveyed information and concerns from families to the clinical teams. Attending radiologists would review and cosign any notes written by the students.
5. Provide support for the 24-7 patient call center. If a family member called regarding a loved one, the call center routed the call to the appropriate FC physician to address.

Survey to Participants

A 13-question anonymous survey was created using a web-based survey tool (Qualtrics, Provo, Utah) and was distributed to the 69 radiology volunteers. The survey was delivered after the completion of their participation via their institutional e-mail and was available for a 5-day period from May 15 to May 19, 2020. Aside from background questions, most questions were mandatory and asked respondents to rate experiences on a Likert scale: strongly agree, agree, disagree, strongly disagree, or not applicable. Given the complexity of the experience, we allowed respondents to further express themselves in optional free text.

The survey was composed of three parts. Although anonymous, the first part of the survey asked respondents to provide background information, including their subspecialty field of radiology and their prior experience with medical trainees. They were also asked to answer questions regarding personal gains that they realized, participation's impact on their knowledge of the health care system and COVID-19, and possible influence of the experience on their communication and future radiology practice. Finally, respondents were asked questions specifically about their experience with medical students as a volunteer in FC.

The survey results were collected and analyzed using Qualtrics web-based software and Excel (Microsoft Corporation, Redmond, Washington). The open-ended comments were inputted into a freeware web-based word cloud generator [5].

Statistics

Comparative statistics were performed between participating and nonparticipating radiologists using χ^2 test and Student's *t* test (Medcalc, Ostend, Belgium). In addition, χ^2 test was performed to elucidate any differences in survey results between the subspecialties.

Retrospective Program Assessment

The institution's electronic medical record system (Epic systems, Verona, Wisconsin) was searched from March 31 to May 17, 2020, the duration of radiologists' participation in FC. Patients admitted for a positive polymerase chain reaction test and to rule out COVID-19 were summed for each day. Clinical care coordination notes written by the radiologists and medical students on FC service were identified during the corresponding period. Each clinical care coordination note represents at least one call made to the patient's family.

RESULTS

Participants

Sixty-nine radiologists participated in FC during the 42 days of the department's involvement and oversaw 64 unique medical students. Table 1 summarizes the demographics of the participating and nonparticipating radiologists. Faculty from all four NYU Langone Health imaging campuses were represented including representatives that practice in an academic setting and those that work exclusively in

outpatient imaging centers. The academic radiologists (63.8% of total radiology volunteers) practice in a setting in which the faculty routinely work with fellows, residents, or medical students. The outpatient radiologists do not have regular exposure to trainees. Of the various subspecialties, breast imaging had the highest percentage of contributors at 33% because all routine breast imaging was paused. Overall, participating radiologists had been in clinical practice for an average of 14.3 years, with a median of 10 years.

Review of the Electronic Medical Record

During the period of the radiologists' participation, nurses, medical students, or physicians from all specialties wrote a total of 11,540 individual templated notes. Attending physicians from all specialties wrote 4,305 notes, of which radiologists wrote 2,950 (68.3%). Medical students wrote 5,082 notes, of which radiologists cosigned 4,077 (80.2%). Radiologists signed or cosigned 7,027 notes, of which 67% were by academic radiologists. Figure 1 provides details of the number of notes written per subspecialty. There was

Table 1. Demographics of participants

Category	FC Participants (%) [*]	Nonparticipants (%) [†]	P Value
Subspecialty			
Abdominal imaging	15 (22)	42 (28)	.35
Breast imaging	25 (36)	16 (11)	<.0001 [‡]
Chest or cardiac imaging	0 (0)	16 (11)	.004 [‡]
Emergency radiology	0 (0)	7 (5)	.06
Interventional radiology	0 (0)	14 (9)	.01 [‡]
Musculoskeletal imaging	10 (15)	19 (13)	.69
Neuroradiology	13 (19)	23 (15)	.46
Neuro-interventional	3 (4)	0 (0)	.01 [‡]
Nuclear medicine	0 (0)	8 (5)	.06
Pediatric imaging	3 (4)	4 (3)	.70
Sex			
Male	30 (44)	89 (60)	.03 [‡]
Female	39 (56)	60 (40)	.03 [‡]
Type of practice			
Academic	45 (65)	115 (77)	.06
Outpatient	24 (35)	34 (23)	.06
Years in practice			
Range	1-46	1-47	
Mean (SD)	13.8 (11.8)	16.7 (11.2)	.08
Median	10	16	

FC = Family Connect.

^{*}Percentage of participating radiologists from a particular subspecialty.

[†]Percentage of nonparticipating radiologists from a particular subspecialty.

[‡]Statistically significant.

marked increase in the total number of notes written on April 13 (day 8), which coincided with a new cohort of physicians from other specialties joining the FC program (Fig. 2). The peak number of total signed or cosigned radiologist notes per day was on the first day of initiation and steadily decline as time progressed. This was compared with the daily census of patients with confirmed or suspected COVID-19. The highest census point was also on the first day of the program at 562 patients.

Survey Results

Of the 69 radiologists that participated in FC, 60 responded to the survey (87.0%). Table 2 reflects the results of the survey questions.

All radiologists found the FC experience increased their understanding of COVID-19 and its effect on the health care system. Overall, 59.6% of respondents, including more than 50% of radiologists from neuroradiology and musculoskeletal subspecialties, either strongly agreed or agreed that participation would result in a change in communication with the patients and their families. Of note, a statistically significant ($P = .03$) fewer percentage (38.9%) of breast imagers felt that participation would lead to changes in communication with patients and families (Table 3).

Over 50% of neuro-interventionalists, neuroradiologists, and abdominal radiologists felt that FC participation would alter the way that they communicated with other physicians

in the future; however, it was not significantly different compared with other subspecialties ($P = .09-.44$; Table 3).

Overall, 98.1% of radiologists who worked with medical students agreed or strongly agreed that their experience with medical students was rewarding. Although all radiologists who interacted with trainees at least once monthly in their normal practice found the collaboration fulfilling, 91% of radiologists who never worked with students also found it be gratifying ($P = .07-.60$; Table 4).

Of the respondents who were paired with a student, 88.0% agreed or strongly agreed that they were able to impart medical or radiology knowledge. Of those who never worked with trainees, 75% agreed or strongly agreed that they were able to impart medical or radiology knowledge compared with the 92.1% who work with trainees at least once monthly, although the difference was not statistically significant. A smaller percentage of participants who covered intensive care units felt they were able to impart medical or radiology knowledge to medical students when compared with those who covered floors requiring less acute care ($P = .06-.73$; Table 4).

When queried about their motivations for FC participation, service to the patient population was the top selection of the provided options in 82.7% of participants. The free text answers to the question of what motivated volunteers to participate in FC were input into the word cloud generator, which identified “families” and “patients” to have the highest frequency of use (Fig. 3).

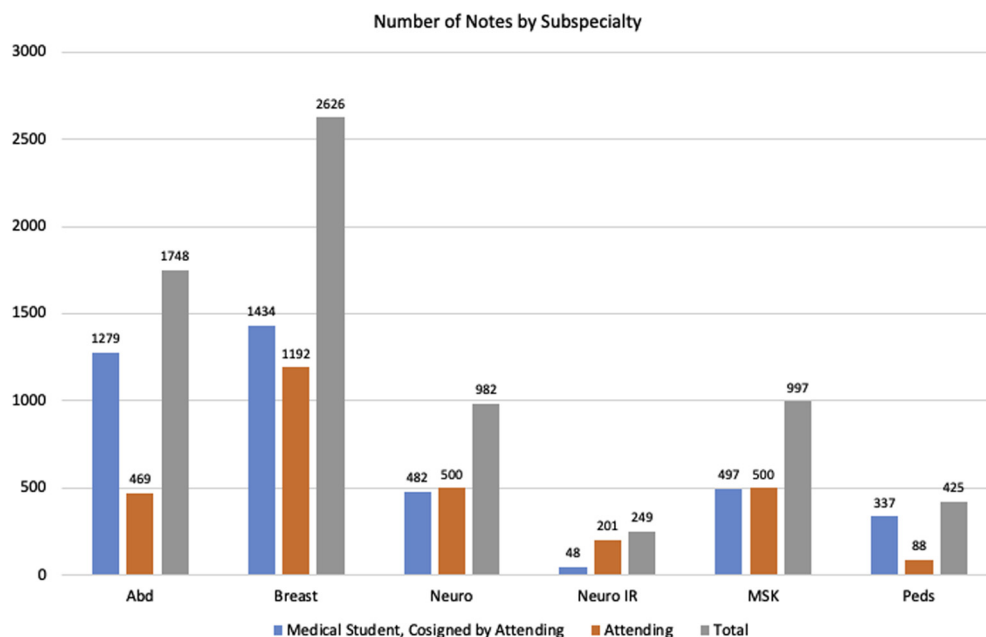


Fig 1. Care coordination notes written and cosigned by each subspecialty. Abd = abdominal radiologist; Breast = breast radiologist; MSK = musculoskeletal radiologist; Neuro = neuroradiologist; Neuro IR = neuro-interventionalist; Peds = pediatric radiologist.

COVID 19-Census and Notes per Day

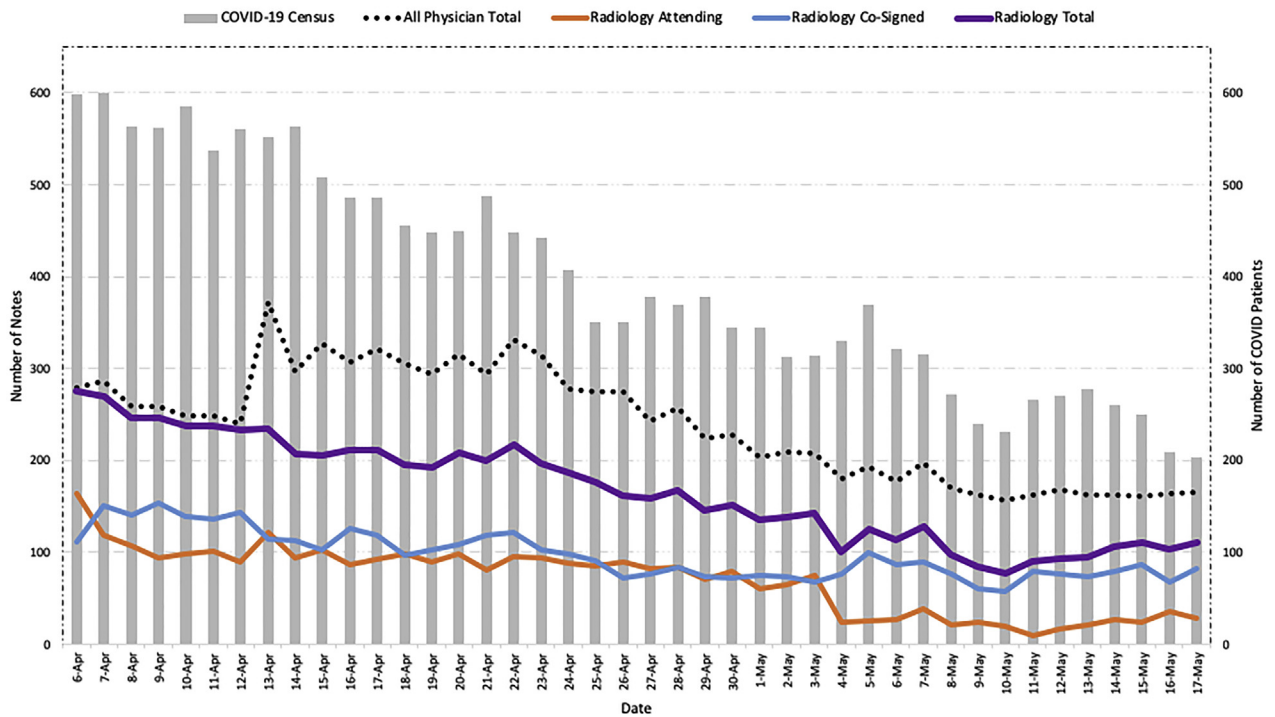


Fig 2. Coronavirus disease 2019 (COVID-19) Census and the number of notes written by Family Connect participants. The bar graph indicates COVID-19 census. Line graphs show the number of care coordination notes written: total number written by all physicians in Family Connect (black dotted line), number written by radiologists (orange line), number cosigned by radiologists (blue line), total number written or cosigned by radiologists (purple line).

DISCUSSION

As the COVID-19 patient census at NYU Langone Tisch Hospital rose, radiologists volunteered to facilitate communication between the frontline staff and patients' families through FC. Participation in this program not only provided a service to frontline clinicians, patients, and families but also impacted the radiology department as a whole and the radiologists as individuals.

Radiologists participated in FC for 42 consecutive days, a commitment that allowed the hospital census to recover from the COVID-19 inpatient surge. During this period, each attending radiologist signed or cosigned an average of 167 notes. Each note represented at least one telephone call, some requiring more than an hour of time for the families of sicker patients. The time for family meetings, previously shown to represent 4% of a hospitalist's patient care time before the pandemic, would have fallen on the faculty and house staff without the support of FC [6]. With the strict no-visitation policies in place, this proportion of time would have likely been even greater. This freed time for the clinicians to provide more direct care to patients.

Among subspecialties in our department, there were statistically significant fewer participating radiologists from

the chest and cardiac radiology, emergency radiology, and interventional radiology divisions. The clinical radiology volume of chest and cardiac radiology and emergency radiology was equivalent to higher than baseline, limiting their capacity to assist. The interventional radiology section created a service to provide central line access and therefore did not participate. A statistically significant larger percentage of breast radiologists volunteered because of their marked decrease in clinical volume. The 100% involvement by the neuro-interventionalists was partially related to their coverage of the neuro-intensive care unit, which was converted to a COVID-19 floor during the surge.

Despite the majority of the radiologists being at least 10 years out of training, the urge to provide service to the patient population was strong enough to overcome the potential anxieties of performing a role that required some skills outside of normal radiology practice. The training in clinical and electronic medical record skills provided by the internal medicine department before the start of the program allowed the radiologists to effectively communicate with clinicians and also to learn about the new COVID-19 process. The training sessions and FC experience not only offered tangible knowledge but also fostered a

Table 2. Results of the survey to Family Connect radiology participants

Question	Responses	Response Count (%)
1. Please denote your radiology specialty.	Abdominal imaging	14 (24.1)
	Breast imaging	19 (32.8)
	Interventional radiology	2 (3.5)
	Musculoskeletal imaging	7 (12.1)
	Neuroradiology	13 (22.4)
	Pediatric radiology	3 (5.2)
2. What level of acuity was your Family Connect coverage? Please select all that apply.	ICU or VCU	13 (15.2)
	Step down unit	24 (28.2)
	Acute care	48 (56.5)
3. Participating in the Family Connect program increased my understanding of COVID-19 and its effect on the health care system.	Strongly agree	47 (78.3)
	Agree	13 (21.7)
	Disagree	0 (0)
	Strongly disagree	0 (0)
4. After participating in the Family Connect program, I feel more comfortable interfacing with Epic.	Strongly agree	33 (55.0)
	Agree	23 (38.3)
	Disagree	2 (3.3)
	Strongly disagree	2 (3.3)
5. Pre-COVID, how often did you typically work with trainees (medical students/residents) in your clinical practice?	Never	16 (26.7)
	Daily	17 (28.3)
	Weekly	16 (26.7)
	Monthly	11 (18.3)
6. During my experience with the Family Connect program, I found working with medical students to be a rewarding experience.	Strongly agree	30 (50.1)
	Agree	21 (35.6)
	Disagree	1 (1.7)
	Strongly disagree	0 (0)
	N/A	7 (11.9)
7. During my experience in the Family Connect program, I was able to impart medical and/or radiology knowledge to the medical student.	Strongly agree	20 (33.3)
	Agree	24 (40.0)
	Disagree	6 (10.0)

(continued)

Table 2. Continued

Question	Responses	Response Count (%)
	Strongly disagree	0 (0)
	N/A	10 (16.7)
8. After participating in Family Connect, I will change the way I practice radiology.	Strongly agree	5 (8.3)
	Agree	19 (31.7)
	Disagree	32 (53.3)
	Strongly disagree	4 (6.7)
9. My participation in the Family Connect program changed the way I will communicate with clinicians in the future.	Strongly agree	6 (10.0)
	Agree	26 (43.3)
	Disagree	23 (38.3)
	Strongly disagree	5 (8.3)
10. My participation in the Family Connect program changed the way I will communicate with patients and their families in the future.	Strongly agree	8 (13.6)
	Agree	26 (44.1)
	Disagree	19 (32.2)
	Strongly disagree	6 (10.2)
11. What was your motivation for participating in the Family Connect program? (Rank all that apply.)	Service to patient population	Ranked 1: 43 (82.7)
	Teaching the next generation of physicians	Ranked 4: 40 (76.9)
	Camaraderie with fellow health care providers	Ranked 3: 32 (61.5)
	Personal sense of purpose	Ranked 2: 31 (59.6)

COVID = coronavirus disease 2019; ICU = intensive care unit; N/A = not applicable; VCU = ventilation care unit.

connection between the internal medicine department and the radiology department, which can potentially lead to further collaboration and interdepartmental education and research. This collaboration has already manifested because one survey respondent has started multiple research projects on COVID-19 with those he connected with during FC.

Education also came in a more technical form because most radiologists indicated increased ease of use of our electronic medical record system, which radiologists rely on every day in normal practice to find pertinent clinical information. In addition, participants also learned to use the electronic medical record's secure chat feature during FC to

contact doctors, nurses, and social workers. This method of communication can be leveraged in the future to ask referring clinicians questions and to communicate findings pertaining to radiology examinations.

FC required communication with both health care providers and families. Because radiology practice involves regular communication with referrers, it is no surprise that 46% of the survey respondents indicated they would not change how they communicate with clinicians. Nevertheless, the majority of abdominal radiologists, neuroradiologists, and neuro-interventionalists responded in agreement that they would change. The unique experience of witnessing how reports from their subspecialty examinations

Table 3. Survey question: “My participation in the Family Connect program changed the way I will communicate with physicians and patients/families in the future” subcategorized by section

Subspecialty	Strongly Agree		Agree		Disagree		Strongly Disagree		% Overall Agree		% Overall Disagree		P value	
	Phys	Pt/Fam	Phys	Pt/Fam	Phys	Pt/Fam	Phys	Pt/Fam	Phys	Pt/Fam	Phys	Pt/Fam	Phys	Pt/Fam
Abdominal	1	1	8	10	5	3	0	0	64.2	78.6	35.8	21.4	0.44	0.10
Breast	2	2	6	5	9	8	2	3	42.1	38.9	57.9	61.1	0.17	0.03*
MSK	0	1	3	3	3	2	1	1	42.8	57.1	57.2	42.9	0.09	0.89
Neuro	3	4	6	6	4	3	0	0	69.2	76.9	30.8	23.1	0.25	0.15
Neuro IR	0	0	2	1	0	1	0	0	100.0	50.0	0	50.0	0.20	0.78
Peds	0	0	1	1	2	2	0	0	33.3	33.3	66.7	66.7	0.10	0.34
Total	6	8	26	26	23	19	3	4	55.2	59.6	44.8	40.4		

Abdominal = abdominal radiologist; Breast = breast radiologist; MSK = musculoskeletal radiologist; Neuro = neuroradiologist; Neuro IR = neuro-interventionalist; Peds = pediatric radiologist; Phys = physician; Pt/Fam = patients and families.

*Statistically significant.

were construed and how they affected clinical care may have inspired changes in reporting technique or an increase in direct communication.

Although almost 60% of survey participants responded that they expected their communication with patients and families would change, less than 40% of breast and pediatric

Table 4. Results of survey questions regarding participant interactions with medical students

Teaching Frequency	Strongly Agree	Agree	Disagree	Strongly Disagree	N/A	% Overall Agree	% Overall Disagree	P Value
Survey question: “During my experience in the Family Connect program, I found working with medical students to be a rewarding experience” subcategorized by frequency of trainee teaching prior to COVID-19								
Never	4	7	1	0	4	91.7	8.3	.07
Daily	8	8	0	0	1	100.0	0.0	.51
Weekly	12	1	0	0	2	100.0	0.0	.56
Monthly	6	5	0	0	0	100.0	0.0	.60
Total	30	21	1	0	8	98.1	1.9	
Survey question: “During my experience in the Family Connect program, I was able to impart medical and/or radiology knowledge to the medical student” subcategorized by frequency of trainee teaching before COVID-19								
Never	2	7	3	0	4	75.0	25.0	.12
Daily	5	9	1	0	2	93.3	6.7	.45
Weekly	10	2	1	0	3	92.3	7.7	.58
Monthly	3	6	1	0	1	90.0	10.0	.83
Total	20	24	6	0	10	88.0	12.0	
Survey question: “During my experience in the Family Connect program, I was able to impart medical and/or radiology knowledge to the medical student” subcategorized by acuity of care of Family Connect coverage								
Floor acuity								
ICU	5	2	4	0		63.6	36.4	.06
Step down	9	8	4	0		80.9	19.1	.73
Acute care	16	20	4	0		90.0	10.0	.09
Total	30	30	12	0		83.3	16.7	

COVID-19 = coronavirus disease 2019; ICU = intensive care unit; N/A = not applicable.



Fig 3. Word cloud created from free-text responses for survey question: “Please share any other feedback regarding your experience in the program.” The cloud shows greater font size for words that appear more frequently in the source text.

radiologists felt that they would alter their communication practices. Pediatric and breast radiologists have frequent interactions with patients in their practice because of the large number of procedures that they perform, which may have influenced the differences in expected practice change. Nevertheless, the majority of the remaining survey participants responded that they expected their communication with patients and families would change. Given the increasing interest in providing patient-centered care in radiology practice because of its potential to improve the quality of patient care [7,8], these radiologists’ newfound comfort of communicating with patients and families is important. In addition to time limitations and workload, Kemp et al found that 50% of surveyed radiologists identified resistance to culture change as an impediment to direct communication with patients [9]. Perhaps the FC experience will lower the resistance threshold for increased patient and patient family communication by radiologists.

Radiologists enjoyed the opportunity to teach medical students via the FC experience. Although all of radiologists who work with trainees at least monthly denoted the student collaboration positively, 91.7% of radiologists who never work with trainees found their interaction with students to be rewarding. This experience may encourage these radiologists to become more engaged in future departmental educational initiatives. Interestingly, radiologists who never work with trainees were less confident that they imparted medical knowledge to the students compared with their colleagues. Although not statistically significant, the degree of confidence in imparting knowledge was dependent on the

acuity of the unit covered. Although only 15.2% of respondents covered the intensive care unit, this group felt less confident than those covering other units (63.6% versus 86.9%). This perception may be secondary to the high complexity of patients in the intensive care unit, whose care was difficult for attending radiologists and students alike.

Our outpatient imaging centers opened on May 1 (day 26 of the program), resulting in less available time to devote to FC because of more clinical radiology work. The FC radiologists saw their educational efforts pay off as medical students wrote a greater percentage of notes and successfully performed a larger bulk of duties under the guidance of the radiologist participants. If the need for FC arises in the future, this demonstrates that, with some guidance, there may be some flexibility in the division of shared duties among attending radiologists and medical students depending on other professional or educational obligations.

Pandemics cause emotional stress to all, including those in the health care professions [10,11]. In our department, the emotional toll may have been heightened by the inability to perform normal clinical responsibilities because of decreased imaging volumes. When given the opportunity to volunteer, the radiology FC participants cited service to patient population as the primary motivation, which was echoed in the free text responses with the predominance of the words “families,” “patients,” and “clinical.” Though the indicated goals of motivation may have centered on service to others, the act of volunteering itself likely bolstered the mental health of the participants [12,13].

As we have shown, FC was a unique opportunity for radiologists to help our fellow clinicians and patients. Although most of the experience was perceived as rewarding and the program had a pronounced positive impact during this pandemic, some challenges were faced as well. These challenges are important to discuss, because the program may need reinstitution in the event of a second wave of the pandemic. Although rare, radiologists occasionally felt underappreciated by the primary medical staff or families. Radiologists should be reassured that this may be secondary to the overall stress of the pandemic as opposed to a critique of their value. Many of the frontline physicians serving on inpatient teams were not hospitalists by trade and were asked to partake in unaccustomed roles. FC leadership will need to emphasize the importance of the radiologists' role. The frequency and detail of medical documentation by inpatient teams were also less than before the pandemic, likely related to frontline physicians serving in unfamiliar roles and navigating high census levels. Although increased utilization of the electronic medical record's secure chat features facilitated communication, leadership should continue to emphasize the importance in maintaining open dialogue.

In the latter half of the FC coverage period, the radiology volume began to return. Participating radiologists balanced virtual round attendance and family calls with concurrent radiology clinical responsibilities. This balance presented challenges to radiologists who were attempting to perform these two disparate tasks simultaneously. More precision on designing clinical schedules to prevent overlap in timing of these responsibilities would be beneficial in relieving this stress. Although radiologists found the experience rewarding, many experienced fatigue related to the frequency and severity of illness related to COVID-19. Although mental health support was available, this should be further encouraged and regular check-ins should be performed.

There were limitations of this study. Because of the rapid necessity to assist the frontline physicians, there was insufficient time to administer a survey before implementation of the program. Therefore, we are unable to evaluate if any preconceived opinions were altered after the experience. Although 87% of participants completed the survey, the lack of the remaining responses may introduce a selection bias because participants that did not respond may have not been as enthusiastic about their experiences. The small number of radiologists in certain subspecialties limited statistically significant analysis. Although the department of medicine leadership expressed appreciation of the radiologists' contributions, no formal survey was conducted to evaluate hospitalists and intensivists' change in perception of radiologists.

In conclusion, the FC program successfully provided support for the frontline inpatient teams while also positively affecting the radiologist participants. This proof of concept adds an effective communication tool to the arsenal of our institution if a similar situation arises in the future, especially with the collaboration of medical students.

TAKE-HOME POINTS

- FC links frontline providers with families of patients with COVID-19, successfully providing support for both.
- FC positively affected radiologist participants in several ways, including increasing their understanding of COVID-19.
- The collaboration with medical students during the program was positively viewed by radiologists.
- FC is an effective communication program that can be re-instituted if a similar situation arises in the future

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