JOURNAL OF COMMUNITY HOSPITAL INTERNAL MEDICINE PERSPECTIVES
2020, VOL. 10, NO. 6, 504–507
https://doi.org/10.1080/20009666.2020.1807218

An internal medicine residency's response to the COVID-19 crisis: caring for our residents while caring for our patients

Stephanie Detterline, Heather Hartman-Hall, Katherine Garbow, Himanshu Rawal, David Blackwood, Gregory Nizialek and Zayd Nashaat

MedStar Union Memorial Hospital, MedStar Health Internal Medicine Residency, Baltimore, MD, US

ABSTRACT

Background: In response to the COVID-19 pandemic, internal medicine residencies have had to develop new teaching strategies and attend to wellness concerns. Providing front-line care for patients in a time of widespread crisis while maintaining attention to training has created unprecedented challenges.

Objective: Our large community hospital based internal medicine residency sought to develop and evaluate a crisis response to the demands of the COVID-19 pandemic to meet our residents' educational and wellness needs.

Methods: In March 2020, our residency developed a crisis plan for functioning during the COVID-19 pandemic. A brief survey was sent via email to our 149 residents to obtain their evaluation of how well their needs were being met by this response.

Results: 92 (62%) residents completed the survey. 88% indicated their well-being needs were well met. Other components were also rated as successful: effective communication (86%), scheduling/staffing (78%), preparing residents for clinical service (77%), and educational needs (76%).

Conclusions: Our residency crisis response to the COVID-19 pandemic was favorably evaluated by our residents in meeting their training and well-being needs. In future work we plan to seek longer-term and more objective measures to assess how residents fare during these challenging times, and to use lessons learned to prepare for future crisis situations.

ARTICLE HISTORY
Received 30 May 2020
Accepted 28 July 2020

KEYWORDS
COVID-19; pandemic; well-being; crisis response; resident stress; burnout prevention

1. Introduction

In response to the COVID-19 pandemic, graduate medical education (GME) programs have had to develop new teaching strategies and attend to the well-being needs of both faculty and residents. Internal medicine (IM) residency programs have been faced with providing front-line care for patients in a time of widespread crisis while attending to training, creating unprecedented challenges.

Guidance on how to respond to a large health crisis includes effective communication, resources that facilitate reflection on the effects of stressors, and tangible support from institutions [1]. In the current crisis, institutions are advised to help their healthcare workers feel heard, protected, prepared, supported, and cared for [2].

MedStar Health took many steps during this crisis including providing adequate personal protective equipment (PPE), hotel rooms, transportation assistance, low-cost child care resources, up-to-date information and guidelines, and easily accessible mental health services. In the context of this system wide response, our IM residency program also initiated a crisis plan to meet the clinical needs of surging patient volumes as well as maintain education for our residents.

In March 2020, our community hospital residency program had 149 residents rotating through four hospitals in the Baltimore area; our residents are organized into four firms each with an assigned chief resident. Prior to the COVID-19 crisis, our residency program had in place a wellness program led by a faculty psychologist who serves as our wellness director (additional details can be found in the supplemental materials).

Adapting our functioning, soliciting ongoing feedback, and adjusting our plan as the crisis developed allowed our program to provide for well-being and learning needs of residents while providing critical clinical services in our hospitals. We describe our residency's response to the COVID-19 crisis along with our early outcome data as a contribution to what we expect to be a new body of scholarly work: how residencies might best navigate a worldwide pandemic that creates strains on healthcare systems and GME programs.

CONTACT Heather Hartman-Hall heather.m.hartman-hall@medstar.net Department of Medicine, MedStar Union Memorial Hospital, Baltimore, MD 21218, USA

This work has not been previously presented or published.

Supplemental data for this article can be accessed here.

2. Method

Guiding principles for our crisis plan included responsiveness, transparency, and prioritizing well-being. This plan was initiated in March 2020 as the first patients with COVID-19 were identified in our hospitals and continued through June 2020 as the pandemic affected our region with surging numbers of positive cases. A brief survey of our residents was utilized for early evaluation of our crisis response.

2.1. Communication

Effective and timely communication within our program was an early goal. Copious information was coming from our system and we recognized the need to summarize and distill the rapidly changing information that was coming from multiple sources, as well as to provide transparency and messages of support. We also needed to continuously seek input from residents and faculty to be sure their needs were being addressed. We instituted weekly conference calls for program leadership, daily emails to program faculty and residents from the progam director, weekly firm check-ins with their chief resident, and weekly virtual house staff meetings with residents and program leadership.

2.2. Clinical components

It was decided, with strong support from our Chairs of Medicine, that only attendings would be expected to go into rooms of patients with COVID-19 for routine exams to minimize resident exposure risk and to preserve PPE. All residents and faculty were repeatedly instructed to take care when donning PPE for safety, particularly in rapid response and code blue situations.

Our crisis scheduling model included decreasing the number of residents on ambulatory rotations and reassigning residents on electives. By focusing mainly on staffing core inpatient teams, we were able to schedule most residents to work seven consecutive days, alternating with being off duty for seven days. This provided a cohort of rested, healthy residents to work each week as well as a reserve for back-up coverage that allowed us to immediately remove from service residents who had concerning symptoms or signs of unsafe fatigue.

2.3. Educational components

To maintain academic engagement for our residents during their off weeks, we created a weekly 'at-home curriculum' (additional details can be found in the supplemental materials). This typically included a journal review, online modules, assigned readings, and individual study as well as the virtual conferences and well-being check-ins described below.

Our didactics moved to an online interactive platform and included lectures or panel discussions each week on emerging topics related to COVID-19 (e.g., infectious disease, critical care, palliative aspects). As the crisis continued, we continued this content while returning to some of our core IM topics. Regarding attendance levels and the amount of dialogue during conferences, we saw more engagement than typical for our in-person lectures earlier in the academic year.

Residents expressed early on a need for additional training in having difficult discussions about COVID-19 diagnosing, care planning, and end-of-life issues. In addition to providing virtual conferences and panel discussions on these topics, we curated resources and reading materials related to this topic and housed them online for easy access. Consultation on these topics was made readily available by our faculty psychologist and our palliative teams.

2.4. Well-being components

Program leadership provided consistent messaging to residents and faculty that their well-being and safety continued to be the primary concern. All were regularly invited to raise any concerns without fear of negative consequences. The program director, chiefs, and wellness director made themselves available to field any questions or concerns and encouraged residents to reach out any time of day. Residents were consistently reminded to have a low threshold for reporting possible fatigue or illness to their chiefs. As noted above, a benefit of our staffing model was a sufficient reserve to cover residents who needed to have time off.

We initially continued to offer lunch for our residents four days a week as we have usually done. We transitioned to individually wrapped food that was made available to residents at lunchtime at all of our hospitals for residents to take and go, with a couple of faculty members present to offer in-person friendly greetings and check-ins with appropriate social distancing. Feedback from residents indicated that on busy services, they were having trouble getting away to eat meals on days lunch was not provided, so faculty and staff began providing meals to residents at all four hospitals on the fifth weekday and during weekend shifts on a volunteer basis (with funding donated by faculty).

In response to this emergency, our usual small group wellness sessions (see supplemental materials for a description of these) were changed to online virtual meetings and the frequency was increased so each resident had the opportunity to participate at

least every other week. These included guided mindfulness and relaxation exercises, coping skills, and discussions about their experiences. Residents also used these discussions as another mode to provide feedback and raise concerns which were shared with program leadership. These sessions were replicated for faculty, offered as a weekly virtual drop-in session for several weeks during the height of our clinical volumes.

Our residents and faculty always have easy access to individual well-being consultation and support from our faculty psychologist by phone/email or in-person meetings at any of our locations, and her availability for phone contact during this crisis time increased to 24 hours a day, 7 days a week.

Information about system, local, and national well-being resources were gathered and made easily available online as well as periodically emailed to the program and reviewed in meetings. A residency wellness card (including crisis phone numbers and QR codes to access online resources) designed to be worn on the badge clip had already been created for the residency; these cards were again made readily available in common areas.

2.5. Evaluating the residency's crisis response

We solicited ongoing feedback from faculty and residents during house staff meetings and smaller check-ins, which was used to refine our response in real time (e.g., scheduling adjustments, additional food provided, topics for didactics selected based on this feedback). The online didactics have had higher attendance than previous live lectures with active engagement of participants. Comments from residents have indicated that they have felt supported, have trust in our program leadership, and believe their safety is prioritized.

A brief survey was conducted in weeks 4 and 5 of the crisis response. All residents were invited by email to participate anonymously; the survey was kept open for two weeks and several reminders were sent. Residents were assured the program would have no way of knowing who participated or to link responses to them personally. The only demographic information collected was PGY, which was collected to assess representation of each cohort. Residents were asked to evaluate how well the residency addressed their well-being, communication, scheduling/staffing, preparing residents for clinical service, and education on a five-point Likert type scale (5-very well, 4-somewhat well, 3-neutral, 2-somewhat poorly, 1-very poorly). There was also a free text comment box for any suggestions or comments. The survey was approved by MedStar's Institutional Review Board.

3. Results

Our survey response rate was 62% (92 out of 149) with all PGY levels represented (PGY1 = 33, PGY2 = 28, PGY3 = 31). The highest response rate was from PGY3 residents (31/45; 69% responding) with the lowest response rate from our largest cohort, the PGY1 residents (33/56; 59% responding). As we did not collect other demographic data, we are limited in being able to draw conclusions about other patterns as to who participated and who did not. An overview of how residents responded to each item on the survey is presented in Table 1. Residents evaluating our program as responding 'very well' or 'somewhat well' in each area evaluated were as follows: well-being needs (88%), effective communication (86%), scheduling/staffing (78%), preparing residents for clinical service (77%), educational needs (76%). Mean survey responses by cohort are presented in Table 2. All mean item ratings were above the midpoint in the positive direction. The only mean rating below 4 (which equates with 'somewhat well') was the PGY2 rating for how well the program prepared them for clinical work during the COVID-19 crisis.

The majority of text comments collected were positive and reflected appreciation for the program's response and leadership. Themes in constructive comments that were collected included specific food requests, wanting to know their work schedule more in advance, and suggestions about team composition. None of the respondents who endorsed items as 'very poorly' offered comments or suggestions in the free text box.

4. Discussion

Early resident feedback suggests that our crisis response was successful in addressing residents' needs. Our program likely benefited from already having in place processes for fatigue mitigation and well-being support. The COVID-19 crisis and its aftermath

Table 1. Percentage of residents endorsing each survey response (n = 92).

	Very well	Somewhat well	Neutral	Somewhat poorly	Very poorly
Met your educational needs*	53.85%	21.98%	14.29%	3.3%	6.59%
Prepared you for clinical services during the crisis	47.83%	29.35%	10.87%	4.35%	7.61%
Handled resident scheduling/staffing appropriately	54.35%	23.91%	10.87%	4.35%	6.52%
Met your well-being needs	72.83%	15.22%	7.61%	2.17%	2.17%
Provided effective communication with you	72.83%	13.04%	4.35%	2.17%	7.61%

* n = 91 for this item.

Table 2. Mean survey item ratings* by cohort.

	PGY1 (n = 33)	PGY2 (n = 28)	PGY3 (n = 31)
Met your educational needs	4.19**	4.07	4.13
Prepared you for clinical services during the crisis	4.24	3.82	4.06
Handled resident scheduling/ staffing appropriately	4.27	4.18	4
Met your well-being needs	4.55	4.67	4.42
Provided effective communication with you	4.55	4.46	4.23

*5 = very well, 1 = very poorly
**n = 32 for this item

may be an impetus for programs across the country to continue to explore creating or further developing well-being programs, both for ongoing burnout prevention as well as for better preparedness for crisis situations.

Future work includes our continued response which will evolve as our clinical and educational landscape changes through the current crisis. We plan to continue to gather feedback from our residents and use objective measures of how they are faring, both during the crisis and in the longer-term. One area for future research may be to better understand how residency programs meet the needs of PGY2s, our least experienced senior residents, to feel prepared to provide clinical services during a crisis like that experienced during our COVID-19 surge. Learning more about how other IM residencies have responded and their outcomes will also add to our understanding of how we can best train and care for our residents on a regular basis as well as during times of significant crisis.

As the GME community continues to explore and share best practices for meeting the well-being needs of our IM residents and faculty, we can continue to change the culture to one that supports wellness while remaining effective in teaching residents and caring for our patients, particularly in a time of wide-scale crisis.

4.1. Limitations

Our results reflect only one IM residency and may not generalize to other settings or populations. The data collected were subjective and collected early in our pandemic response. More objective data of desired outcomes after a longer period (e.g., well-being measures) would be a useful next step in this line of study and would bolster conclusions about the efficacy of our interventions.

5. Conclusions

Preliminary feedback from our residents indicates an overall positive evaluation of our crisis response to meet their well-being and educational needs during the first weeks of our system's surge during the COVID-19 pandemic. Our program may have benefitted from having already had a wellness program in place. Continued monitoring of outcomes and lessons learned will help guide future residency responses to widespread healthcare crises.

Acknowledgments

The authors gratefully acknowledge the strong support of our Chairs of Medicine, Dr. Dana Frank and Dr. Stephen Selinger, and Dr. Nehna Abdul Majeed for her work in implementing our residency crisis response.

Disclosure statement

No potential conflict of interest was reported by the authors.

ORCID

Heather Hartman-Hall http://orcid.org/0000-0002-7686-023X

References

[1] May RM, McLean AR, Pattison J, et al. The experience of the 2003 SARS outbreak as a traumatic stress among frontline healthcare workers in Toronto: lessons learned. Philos Trans R Soc B. 2004;359 (1447):1117–1125.
[2] Shanafelt T, Ripp J, Trockel M. Understanding and addressing sources of anxiety among health care professionals during the COVID-19 pandemic. JAMA. 2020;323(21):2133.