# Impact of COVID-19 Policies on Hospitalists' Psychological Safety

Lily Rotman Devaraj, MD<sup>1</sup>; Benjamin Geisler, MD, MPH<sup>2</sup>; Cynthia Cooper, MD<sup>2</sup>; and Arabella Simpkin Begin, MD, MMSc<sup>2</sup>

**Objectives:** The coronavirus disease 2019 pandemic brought about many changes in work environment and interpersonal interactions to prevent the spread of infection. Policies such as ubiquitous masking, virtual meetings, physician distancing, and decreased communal eating changed the inpatient work environment. This study aims to look at the impact of these changes on hospitalists' psychological safety.

**Methods:** We surveyed hospitalists on how these changes affected their well-being and feelings of psychological safety.

**Results:** Masking, virtual meetings, and fewer opportunities to eat together decreased connection with colleagues. Virtual meetings and social distancing decreased some aspects of psychological safety.

**Conclusions:** This study highlights the importance of finding ways to foster connection and decrease burnout while continuing to prevent the spread of infection.

**Key Words:** COVID-19 pandemic, hospitalists, infection control, psychological safety, social distancing

The coronavirus disease 2019 (COVID-19) pandemic sparked fear and uncertainty across the globe, especially among frontline healthcare workers. Amidst many unknowns, the work environment changed dramatically, with social distancing guidelines altering workplace interactions, unfamiliar and changing teams, fear for personal safety, and risk of burnout from extra work. Such times of crisis increase the need for psychological safety, an environment where people feel safe to take interpersonal risks. This has been shown to be at the core of team

functioning, enhancing interpersonal connections.<sup>3,4</sup> The stress of the pandemic affected healthcare workers' well-being,<sup>1,2</sup> but the impact of behavioral changes related to the prevention of the spread of COVID-19 on hospitalists' psychological safety is unknown.

In adaptation to the pandemic, hospitalists' primary work continued to be performed in person but with the addition of masks, social distancing, and isolated eating. Meetings and education, however, transitioned to virtual forums. To our knowledge, no surveys on the effects of behavioral changes related to COVID-19 (eg, masking, virtual meetings, physical distancing, fewer communal meals) on psychological safety have been published. We surveyed hospitalists working in a large tertiary academic medical center in the United States on their reactions to behavioral changes implemented in response to COVID-19 to evaluate what impact these changes may have had on their psychological safety.

#### Methods

We conducted an online 10-minute cross-sectional anonymous survey in June 2021 of all 145 hospitalists in the Hospital Medicine Unit at our institution (comprising 103 physicians and 42 advanced practice providers) to examine the effects of behavioral changes related to the prevention of the spread of COVID-19 on psychological safety. The domains included demographics, impact of wearing masks, virtual versus in-person

From the <sup>1</sup>Department of Medicine and Pediatrics and the <sup>2</sup>Department of Medicine, Massachusetts General Hospital, Boston.

- Correspondence to Dr Lily Rotman Devaraj, Department of Medicine and Pediatrics, Massachusetts General Hospital, 55 Fruit St, Boston, MA 02114. E-mail: ldevaraj@mgh.harvard.edu. To purchase a single copy of this article, visit sma.org/smj. To purchase larger reprint quantities, please contact reprintsolutions@wolterskluwer.com.
- L.R.D. received funding for 0.12 FTE salary support during the 2021–2022 academic year to support this research. B.G. has received compensation from the American Society of Clinical Oncology, Cardiovascular Systems, Ceterix Orthopaedics, Cook Medical, GlaxoSmithKline, Intact Vascular, Limflow, Medtronic, Oxford University Press, PneumRx, Public Library of Science (PLoS), ResMed, Salix, SafeHeal, Society for General Internal Medicine, Society for Hospital Medicine, Sofinnova Partners, Springer Nature, UpToDate, Veracye, and Wing Tech. The remaining authors did not report any financial relationships or conflicts of interest.

Accepted March 24, 2023. 0038-4348/0-2000/116-772

Copyright © 2023 by The Southern Medical Association

DOI: 10.14423/SMJ.0000000000001595

# **Key Points**

- Changes implemented to decrease disease spread during the coronavirus disease 2019 pandemic changed the work environment for healthcare professionals.
- We surveyed hospitalists on how these changes affected their well-heing
- We found that masks, virtual meetings, and fewer opportunities to eat together decreased connection with colleagues. Virtual meetings and social distancing also decreased some aspects of psychological safety.
- This study highlights the importance of finding ways to foster connection and decrease burnout while continuing to prevent the spread of infection.

772

meetings, physical distancing, reduced ability to eat with colleagues, and rapid turnover of teams during the first COVID-19 surge. Items from validated scales on psychological safety,<sup>5–7</sup> were used in each of these categories, and the survey was piloted among clinician experts. The secure, Web-based application Research Electronic Data Capture was used to manage survey distribution and collect responses. No identifying information was collected, ensuring that it was impossible to identify respondents or to link them to their survey answers.

Standard descriptive statistics were used to characterize the sample. Responses were reduced from the 5-point Likert scale (strongly agree, agree, neutral, disagree, strongly disagree) to three categories: agree, neutral, and disagree. We assessed for relations between the outcome variable and other variables using ordinal logistic regression in STATA IC 14.2 (StataCorp, College Station, TX). We received an exemption from the Partners Healthcare institutional review board.

## Results

Forty-seven faculty responded. Responses indicated that masks made 61.7% (29) of the participants feel less connected to colleagues and that virtual meetings made 80.9% (38) of the participants feel less connected to one another. When wearing masks, 6.4% (3) of the participants were less likely to speak up: 2.1% (1) indicated that they were more likely to admit mistakes. Regarding virtual meetings, only 8.5% (4) of the participants found it easier to speak in groups, and 76.6% (36) of participants found these meetings to be less personal compared with in-person meetings. There was close to an even split in responses to feeling relaxed during virtual meetings (39% [18] agree, 26% [12] neutral, 35% [16] disagreed) and feeling comfortable expressing opinions (42% [20] agree, 30% [14] neutral, and 28% [13] disagreed). Physical distancing during in-person meetings made people feel less comfortable (6% [3] vs 53% [25]) and less likely to admit mistakes (65% [31] vs 0% [0]). The ability to eat together prepandemic made it easier to connect with coworkers (85% [40] agreed) and fewer opportunities to eat together made people feel less connected (87% [41] agreed). Ninety-four percent (43) found the rapidly changing guidelines at the beginning of the pandemic stressful and 87% (41) found the uncertainty around the pandemic disconcerting (Table).

# Discussion

Healthcare workers found rapidly changing guidelines and uncertainty at the beginning of the pandemic stressful. Psychological safety is known to increase engagement, satisfaction, and create high-functioning teams; therefore, understanding factors that affect it is critical, especially because some protocols to protect healthcare workers from COVID-19 are likely to stay in place for some time. This study shows that masks, virtual meetings, and the inability to eat together created feelings of reduced connection, and physical distancing decreased feelings of psychological safety.

Much of human communication is nonverbal. Visual communication, such as facial expressions and gestures, is important in communicating emotions and the impact we have on others.8 The decreased ability to see subtle facial expressions while wearing masks or in small projections during virtual meetings (or not at all if the camera is off) decreases the ability to interpret what others are saying.<sup>8</sup> During virtual meetings, gestures often are hidden and options for comforting touch are absent. The opportunity for "small talk" is limited. In each of these ways, masks and virtual meetings may decrease the connection experienced by participants. It has been shown that interacting socially with colleagues and feeling a sense of working in social and supportive environments are strongly correlated with satisfaction and feeling valued—these are essential for nurturing well-being and mitigating burnout. 10 Shared meals provide opportunities to foster social connection and build community. Unsurprisingly, our results indicate that the inability to eat together added to a sense of disconnection.

Masks and virtual meetings had mixed effects on other aspects of psychological safety. This may relate to the variety of potential effects masks may have, likely related to personality type, which has been shown to influence the interpretation of facial expressions. 11,12 Introverts, for example, may prefer the anonymity of masks, feeling bolder and more empowered to speak up. Masks, however, can hide facial expressions that can help create connection and understanding.<sup>8</sup> There was an even split in responses to feeling relaxed during virtual meetings and feeling comfortable expressing opinions. This may be caused by other factors affecting psychological safety during virtual meetings. Some participants attend virtual meetings from home, a work breakroom, or other space that may contribute to them feeling relaxed. On Zoom (Zoom Video Communications, San Jose, CA), opinions can be expressed via the chat feature, which takes away pressure of others looking at you as you speak.9

Physical distancing made people less comfortable expressing opinions and admitting mistakes. This reduced willingness to take risks reflects decreased psychological safety<sup>5</sup> and may relate to feelings of disconnection. The rapidly changing guidelines and uncertainty at the start of the pandemic were understandably stressful. Interestingly, rapidly changing teams and working with unfamiliar colleagues had less of an impact on hospitalists' sense of psychological safety. This may be because hospitalists are used to changing teams and working with new colleagues.

This study has several limitations. Our results are subject to the inherent selection and reporting biases that often occur in survey studies. To minimize any social desirability biases, results were collected in a deidentified and confidential manner. In addition, participants were not aware of the study aims, and we have no information to suggest that they would have chosen to participate or not on the basis of their degree of psychological safety. Data were collected from a single center and single specialty, so it is unclear to what extent our findings can be generalized across other specialties. There is no reason to postulate that our findings would be unique to hospitalists, however. Because of the design

Table. Impact of COVID-19 policies on hospitalists' psychological safety

Question	Percent agree	Percent neutral	Percent disagree
Masks			
Masks made me less likely to speak up	6	24	70
Masks make me less self-conscious	36	34	29
Masks make me more likely to admit a mistake	2	32	66
Masks make me feel more relaxed in social situations	17	32	51
Masks make me feel disconnected to others	62	23	15
Virtual meetings			
I feel more comfortable asking questions during virtual meetings	15	28	57
I am more likely to admit a mistake during virtual meetings	0	37	63
I feel less comfortable expressing my opinion during virtual meetings	42	30	28
I feel more relaxed during virtual meetings	39	26	35
I find it easier to speak in groups during virtual meetings	9	21	70
I feel less connected to people during virtual meetings	81	13	6
Virtual meetings feel impersonal	77	17	6
I feel equally comfortable during virtual meetings whether or not I have met the participants in person	19	30	51
Physical distancing			
During in-person meetings, physically distancing from others makes me feel more comfortable asking questions	6	41	53
During in-person meetings, physically distancing makes me more likely to admit a mistake	0	34	66
During in-person meetings, physically distancing makes me less comfortable expressing my opinion	6	34	58
During in-person meetings, physically distancing makes me feel less connected to people	47	25	28
Eating together			
The ability to eat with colleagues pre-COVID made it easier to connect to coworkers	85	15	0
I like that COVID normalized not having to eat with others	19	17	64
Fewer opportunities to eat with others makes me feel less connected	87	9	4
Changes around pandemic			
At the beginning of the pandemic, the rapidly changing guidelines around COVID-19 were a source of stress	94	2	4
If my team members changed more rapidly during the COVID-19 pandemic, it was stressful <sup>a</sup>	54	28	11
The rapid turnover of team members during COVID-19 had no effect on my ability to connect with others	22	15	54
Working alongside people pulled from other medical specialties during the COVID-19 surge was more stressful than working with other hospitalists	28	46	26
I found the uncertainty around COVID-19 disconcerting	87	9	4

Some questions have been abbreviated here. COVID-19, coronavirus disease 2019.

of our study, we cannot draw conclusions about causality from our findings alone. Further research with larger samples and longitudinal data is needed.

### **Conclusions**

Protocols put in place to protect faculty from spreading COVID-19 (eg, masks, virtual meetings, physical distancing) appear to have resulted in changes in how healthcare workers feel about interacting with one another. Masks made people feel disconnected, and virtual meetings felt impersonal and fostered less connection. Meals shared with others create a sense of connection among colleagues that was lost during the pandemic. Virtual

meetings and social distancing decreased comfort in sharing opinions and discussing mistakes, which are indicators of psychological safety. Critical to promoting a high-performing faculty workforce, especially important at times of acute crisis like the COVID-19 pandemic, are connection and sense of community. It is crucial to pay attention to how protocols designed to keep staff safe may be affecting well-being and team functioning. Decreased visual cues from mask wearing, social distancing, and virtual meetings make reading facial expressions harder. We can take this opportunity to be deliberate in how we communicate, choosing our words carefully, and using closed loop communication. Encouraging the use of cameras during virtual meetings can increase our ability to see nonverbal cues

774

<sup>&</sup>lt;sup>a</sup>Percent not applicable 7%.

<sup>&</sup>lt;sup>b</sup>Percent not applicable 9%.

during virtual meetings.<sup>9</sup> Offering virtual spaces to discuss shared experiences, emotional patient encounters, and interesting clinical cases also can help foster connection.<sup>13</sup>

# Acknowledgment

The authors thank Dr Joshua Metlay for contributing to the idea behind this study.

### References

- Shah K, Chaudhari G, Kamrai D, et al. How essential is to focus on physician's health and burnout in coronavirus (COVID-19) pandemic? Cureus 2020;12:e7538–e7538.
- Pfefferbaum B, North CS. Mental health and the Covid-19 pandemic. N Engl J Med 2020;383:510–512.
- Devaraj LR, Cooper C, Begin AS. Creating psychological safety on medical teams in times of crisis. J Hosp Med 2021;16:47–49.
- Kahn WA. Psychological conditions of personal engagement and disengagement at work. Acad Manage J 1990;33:692–724.

- Edmondson A. Psychological safety and learning behavior in work teams. Adm Sci Q 1999;44:350–383.
- Gerrity MS, White KP, DeVellis RF, et al. Physicians' reactions to uncertainty: refining the constructs and scales. *Motiv Emot* 1995;19:175–191.
- Anderson N, West MA. Team Climate Inventory: Manual and User's Guide. Windsor, ON, Canada: ASE; 1994.
- Huth K, Weinstock PH. Masks: the new face of healthcare and simulation. Simul Healthc 2020;15:375–376.
- Edmondson AC, Daley G. How to foster psychological safety in virtual meetings. https://hbr.org/2020/08/how-to-foster-psychological-safety-invirtual-meetings. Published August 25, 2020. Accessed May 30, 2023.
- Simpkin AL, Chang Y, Yu L, et al. Assessment of job satisfaction and feeling valued in academic medicine. *JAMA Intern Med* 2019;179:992–994.
- Knyazev GG, Bocharov AV, Slobodskaya HR, et al. Personality-linked biases in perception of emotional facial expressions. Pers Individ Dif 2008;44:1093

  –1104.
- Akert RM, Panter AT. Extraversion and the ability to decode nonverbal communication. Pers Individ Dif 1988;9:965–972.
- Rakowsky S, Flashner BM, Doolin J, et al. Five questions for residency leadership in the time of COVID-19: reflections of chief medical residents from an internal medicine program. *Acad Med* 2020; DOI: 10.1097/ACM. 00000000000003419.