

COVID-19 Content

Provider Perceptions of a Humanizing Intervention for Health Care Workers—A Survey Study of PPE Portraits



Jennifer Reidy, MD, MS, FAAHPM, Cati Brown-Johnson, PhD, Nancy McCool, LICSW, ACHP-SW, Shawna Steadman, MSN, ACNP-BC, ACHPN, Mary B. Heffernan, MFA, and Vandana Nagpal, MD, FACP
Division of Palliative Care (J.R., N.M., S.S., V.N.), University of Massachusetts Memorial Medical Center, Worcester, Massachusetts; University of Massachusetts Medical School (J.R., V.N.), Worcester, Massachusetts; Division of Primary Care and Population Health (C.B.-J.), Stanford School of Medicine, Palo Alto, California; University of Massachusetts Graduate School of Nursing (S.S.), Worcester, Massachusetts; and Department of Art and Art History (M.B.H.), Occidental College, Los Angeles, California, USA

Abstract

Context. Reports from patients and health care workers dealing with coronavirus disease 2019 (COVID-19) underscore experiences of isolation and fear. Some of this experience results from the distancing effect of masks, gloves, and gowns known as personal protective equipment (PPE). One approach to bridging the divide created by PPE is the use of PPE portraits, postcard-sized pictures affixed to PPE.

Objectives. Our confidential electronic mail-based survey aimed to quantify provider attitudes toward PPE portraits.

Methods. PPE portraits were piloted at an academic safety-net health system experiencing a COVID-19 patient surge during April–May 2020, necessitating use of full PPE for COVID-positive patients and surgical masks in all hospital settings. Our survey assessed staff exposure to PPE portraits, attitudes toward PPE portraits, and potential program expansion. For staff wearing PPE portraits, we also assessed perceptions of interactions with other staff and patients/families and impact on personal well-being. The University of Massachusetts Medical School's Institutional Review Board designated this as a quality improvement project (#H00020279).

Results. More than half of survey respondents ($n = 111$ of 173; 64%) reported exposure to PPE portraits. Attitudes toward PPE portraits were positive overall, with agreement that PPE portraits were a good idea (89%), improved provider mood (79%), enhanced perception of team connection (72%), and more positive among those who reported exposure. Open-ended responses ($n = 41$) reinforced positive survey data and also raised concerns about infection control ($n = 6$), cost/logistics ($n = 5$), and provider vulnerability ($n = 3$).

Conclusion. Providers report that PPE portraits may represent a positive patient-centered idea that helps reassure patients, is well received by interdisciplinary staff, and may enhance patient and team interactions. Potential adaptations to address concerns include photo pins and donor/patient and family experience department support for costs. *J Pain Symptom Manage 2020;60:e7–e10. © 2020 American Academy of Hospice and Palliative Medicine. Published by Elsevier Inc. All rights reserved.*

Key Words

COVID-19, personal protective equipment, PPE, PPE portraits, patient-provider connection

Key Message

This article describes a cross-sectional study that investigated provider perceptions on the use of personal protective equipment (PPE) portraits, an

intervention that addresses the barrier to patient-provider connection presented by the use of PPE. The results suggest that implementation of the PPE portrait project is feasible, acceptable, and effective.

Address correspondence to: Jennifer Reidy, MD, MS, FAAHPM, Division of Palliative Care, University of Massachusetts Medical School, Palo Alto, CA, USA. E-mail: jennifer.reidy@umassmemorial.org

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Introduction

Reports from patients and health care workers during the coronavirus disease 2019 (COVID-19) pandemic underscore experiences of isolation and fear, with extreme cases even resulting in self-harm.¹ Some of this experience may result from the necessary distancing effect of masks, gloves, and gowns known as personal protective equipment (PPE). PPE is a necessary response to highly infectious diseases² but may also create emotional and physical barriers between clinicians and patients. These and other barriers to communication, including the fast-paced and high-acuity hospital environment during the COVID crisis, can negatively impact clinicians' ability to connect with patients, especially in high-touch and relationship-based specialties such as palliative care.³ Visitor restrictions during pandemic also prevent family and loved ones from being at a patient's bedside, and mask-wearing hospital caregivers and palliative care teams avoid touching patients for contact unrelated to clinical care such as holding a person's hand or giving a hug.

The global pandemic has been described as a powerful amplifier of suffering,⁴ and the field of palliative care has mobilized onto the frontlines in emergency rooms, hospital wards, and intensive care units during COVID crisis. Palliative care teams are facing historic numbers of hospital consults in COVID surge areas and witnessing seriously ill patients dying without family present; in response to aforementioned barriers, there is an urgent need for creative solutions to maintain and enhance human connection in hospitals besieged by COVID.⁵

At UMass Memorial Medical Center (UMMMC), a 781-bed academic, safety-net health system in central Massachusetts, the inpatient palliative care service saw its daily new consult volume significantly increase (85/month to 108/month) and experienced an unprecedented number of patient deaths (19/month to 43/month) during a patient surge in April–May 2020. In virtual town hall meetings during this time, hospital providers expressed severe levels of stress related to deployment in areas outside their discipline with unfamiliar colleagues, caring for very sick and dying patients in a depersonalized hospital environment, and long hours of donning/doffing PPE, with fears of contracting COVID and/or transmitting the virus to loved ones leading to their self-isolation at home to prevent potential infection spread.⁶ As a result, the UMMC palliative care team implemented an art intervention, PPE portraits, with the goal of improving connection among the team, patients, and hospital colleagues.

PPE portraits are postcard-sized face portraits printed and affixed to PPE as stickers, laminated

badges, or even buttons (Fig. 1). Artist Mary Beth Heffernan, a professor at Occidental College, created and piloted PPE portraits during the Ebola epidemic in 2015. The UMMC palliative care team collaborated with Ms. Heffernan et al.⁷ at Stanford School of Medicine who were simultaneously launching PPE portraits for staff working in outdoor COVID testing tents. After few weeks of implementation, the UMMC palliative care team conducted a survey of health care workers to understand their attitudes and experiences with PPE portraits.

Methods

Our confidential online survey was electronically mailed to staff to assess exposure to PPE portraits; attitudes toward PPE portraits, including impacts on mood and interstaff connection, and potential program expansion. For staff wearing PPE portraits, we also assessed perceptions of interactions with other staff and patients/families and impact on personal well-being. Survey items used a five-point Likert scale (strongly agree to strongly disagree), plus an open-ended comments option. UMass Institutional Review Board designated this as a quality improvement project (#H00020279).

Setting

PPE portraits were piloted by the inpatient palliative care team at UMMC experiencing a COVID-19 patient surge from April to May 2020, necessitating use of full PPE for COVID-positive patients and surgical masks for COVID-negative patients and all staff interactions. We implemented PPE portraits based on current best practices, including use of a large full-face portrait (4" × 5") of the palliative care team member smiling directly at the camera.⁷ We innovated on Ebola PPE portrait pilot stickers, using a combination of stickers for full PPE and laminated portraits affixed with pins for team members' clothing, clearly visible below their surgical masks at other times.

At UMMC, the palliative care team worked directly with the artist (M. B. H.) who created disposable labels (at \$8–\$15 for 100 4 × 5 labels) with existing institutional photos of each team member via a color laser printer (price range \$300–\$600); as next step, one team member (S. S.) used a laminator machine (approximately \$150) to laminate a label for each colleague, which could be pinned to their clothing. The total start-up cost for the team was \$800 at maximum.



Much like the mechanisms that make placebo treatments work, we know that **provider warmth and competence are positively associated with health** at the biological level. Personal protective equipment (PPE) signals competence; portraits could be one of the only signals of warmth for patients who have, or may have, COVID-19. **PPE Portraits are disposable portrait picture** stickers (4x5 inches) put on PPE that can help patients and providers form a personal connection to positively impact patient health.

Fig. 1. How to make and apply PPE portraits. PPE = personal protective equipment; COVID-19 = coronavirus disease 2019.

Results

Survey responders ($n = 173$) included physicians ($n = 33$), advanced practice providers ($n = 81$), trainees—residents/fellows ($n = 19$), case manager/social workers ($n = 25$), nurses ($n = 11$), and administrative assistants ($n = 3$). Responders were primarily women (near 80%; $n = 135$). More than half ($n = 111$; 64%) reported exposure to PPE portraits.

Attitudes toward PPE portraits were positive overall and more positive among those who reported exposure. Of those exposed, a large majority agreed or strongly agreed that *wearing PPE portrait is a great idea* (89%; 99 of 111); *seeing a professional with PPE portrait improved my mood and made me smile* (79%; 88 of 111); *PPE portrait of the professional helped me feel more connected to the person behind the mask* (72%; 80 of 111). More than half of those exposed reported wanting PPE portraits implemented in their department and system-wide (59% each), and almost half had talked to colleagues about PPE portraits (47%). Few participants had personal experience of using PPE portraits ($n = 17$), but perceptions were positive: most agreed or strongly agreed that they received positive feedback from staff (11 of 17) and patients and families (11 of 16), that PPE portraits augmented interactions with staff (12 of 17) and enhanced meaningful connection

with patients and families (11 of 17), and that they increased provider sense of well-being (11 of 16). Open-ended comments ($n = 41$) reinforced that PPE portraits not only address needs for connection ($n = 15$) but also raised concerns about infection control and cleaning/decontamination ($n = 6$), costs and logistics of the intervention ($n = 5$), and provider vulnerability in wearing PPE portraits ($n = 3$). Respondents also provided alternative ideas for connection that included carrying business cards with photos to distribute to patients.

Discussion

Providers report that PPE portraits may represent a positive patient-centered idea that helps reassure patients in the hospital environment during the pandemic. This study suggests that PPE portraits may enhance communication *between* health care workers, which could include redeployed staff who do not know their colleagues in a high-acuity hospital setting. This enhanced communication is particularly relevant for palliative care, where previous research has documented that excellent coordination of care results in

better patient quality of life and satisfaction outcomes.⁸

In addition to positive signals with respect to provider well-being, team functioning, and even potentially patient care, our results also highlight areas for improvement for PPE portraits. Infection control concerns must be addressed, and further investigation and protocols are needed to ensure decontamination and cleaning of laminated PPE portraits reused by staff. Wearing a PPE portrait is also not for everyone and can make some providers feel more exposed and vulnerable. Finally, the logistics and cost of creating PPE portraits locally, as well as competing priorities—especially in COVID surge situations—may be deterrents to the intervention, although overall start-up costs for a single unit may be manageable. Finally, this study did not measure the perspectives of patient and families; further investigation of the intervention's impact on patient and family experience in health care is needed.

In general, PPE portraits were acceptable and ready for exploration to system-wide rollout at our institution. Based on the positive response and high visibility of the PPE portrait project, senior leadership at UMMC and the dean of the University of Massachusetts Medical School committed to creating photo pins for hospital staff and medical students to wear on their white coats and scrubs (launched in June 2020). This effort was coordinated by the Office of Patient and Family Experience and funded by a private donor. Toggling between stickers, laminated badges, and more permanent photo pins may give providers the tools to address infection control concerns by setting; in addition, support through patient and family experience departments and private donors may be one way to address cost concerns. Functional next steps include documenting and sharing best practices for this simple and promising intervention, while continuing to monitor and report on its impact on providers, patients, and families.

Disclosures and Acknowledgments

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References

1. Sahoo S, Rani S, Parveen S, et al. Self-harm and COVID-19 pandemic: an emerging concern—a report of 2 cases from India. *Asian J Psychiatry* 2020;51:102104.
2. Poller B, Tunbridge A, Hall S, et al. A unified personal protective equipment ensemble for clinical response to possible high consequence infectious diseases: a consensus document on behalf of the HCID programme. *J Infect* 2018;77:496–502.
3. Kirk I, Kirk P, Kuziemyk C, Wagar L. Perspectives of Vancouver Island hospice palliative care team members on barriers to communication at the end of life: a preliminary study. *J Hosp Palliat Nurs* 2010;12:59–68.
4. The Lancet. Palliative care and the COVID-19 pandemic. *Lancet* 2020;395:1168.
5. Etkind SN, Bone AE, Lovell N, et al. The role and response of palliative care and hospice services in epidemics and pandemics: a rapid review to inform practice during the COVID-19 pandemic. *J Pain Symptom Manage* 2020;60:e31–e40.
6. Wallace CL, Wladkowski SP, Gibson A, White P. Grief during the COVID-19 pandemic: considerations for palliative care providers. *J Pain Symptom Manage* 2020;60:e70–e76.
7. Brown-Johnson C, Vilendrer S, Heffernan MB, et al. PPE portraits—a way to humanize personal protective equipment. *J Gen Intern Med* 2020;35:2240–2242.
8. Dy SM, Apostol C, Martinez KA, Aslakson RA. Continuity, coordination, and transitions of care for patients with serious and advanced illness: a systematic review of interventions. *J Palliat Med* 2013;16:436–445.