Effectiveness of self-portraits used over personal protective equipment during the COVID-19 pandemic among patients and healthcare workers

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Dear Editor

The use of personal protective equipment (PPE) has become essential during the COVID-19 crisis. Healthcare providers don masks, goggles/visors, and gowns to protect their eyes, nose, and mouth, resulting in only their eyes being seen. Facial expression significantly relates to human individuality and is crucial to non-verbal communication. Apart from the various other interventions, such as increasing inputs from a psychologist, sociologist, and chaplaincy, a simple intervention, such as using a self-portrait on the PPE, could improve the working atmosphere and improve patient satisfaction. Actions should be designed around the moral imperative to save lives and reduce suffering using the tools, technologies, techniques, and instruments available.

A validated tool, the Patient Satisfaction Questionnaire 18 by Marshall and Hays, was modified and used for quantitative assessment of the effectiveness of a simple intervention in a prospective interventional study carried out at a tertiary COVID-19 specialty hospital in South India. The study was approved by the Christian Medical College Vellore institutional review board (13301), and registered with the Central Trial Registry of India (REF/2020/08/036109).

The study was conducted in October 2020, over 5 days. Both patients and doctors were included as study subjects. A two-arm intervention was carried out at a tertiary COVID-19 specialty hospital in South India. The study was approved by the Christian Medical College Vellore institutional review board (13301), and registered with the Central Trial Registry of India (REF/2020/08/036109). Patients were equally satisfied with the intervention. Time spent with doctors proved to be the most significant, with an improvement in mean score of 0.42 after the intervention yielded a positive response.

This study has shown that the simple intervention of a self-portrait used by doctors in full-length PPE improves patient satisfaction and satisfaction among doctors. Personal identity is an important yet simple tool by which to humanize treatment, especially during the pandemic.

Table 1 Results of doctors’ questionnaire

| Question                                                                 | Pretest* | Post-test* | Mean difference† | P‡ |
|-------------------------------------------------------------------------|----------|------------|------------------|----|
| I feel the communication between doctors has improved                  | 2.90(0.64) | 3.60(0.88) | 0.70 (0.21, 1.19) | 0.007 |
| I feel it was easy to identify my colleagues                           | 2.50(0.99) | 3.90(0.85) | 1.35 (0.75, 1.94) | < 0.001 |
| I need to remove my mask to communicate                                | 3.90(0.72) | 4.00(0.79) | 0.10 (~0.38, 0.58) | 0.679 |
| My patients are happy with doctors in PPE                               | 2.10(0.85) | 2.80(1.11) | 0.70 (0.06, 1.3) | 0.030 |

*Values are mean(s.d.); †values in parentheses are 95 per cent confidence intervals. PPE, personal protective equipment. ‡t test.

Received: January 29, 2021. Accepted: April 03, 2021
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Disclosure. Bias via the Hawthorn effect may have taken place.

Supplementary material
Supplementary material is available at BJS online

References
1. COVIDSurg Collaborative. Global guidance for surgical care during the COVID-19 pandemic. Br J Surg 2020;107:1097–1103
2. Jessop ZM, Dobbs TD, Ali SR, Combellack E, Clancy R, Ibrahim N et al. Personal protective equipment for surgeons during COVID-19 pandemic: systematic review of availability, usage and rationing. Br J Surg 2020;107:1262–1280
3. Pallister-Wilkins, P. Personal protective equipment in the humanitarian governance of Ebola: between individual patient care and global biosecurity. Third World Q 2016;37:507–523
4. Abad C, Feariday A, Safdar N. Adverse effects of isolation in hospitalised patients: a systematic review. J Hosp Infect 2010;76:97–102
5. Thayaparan AJ, Mahdi E. The Patient Satisfaction Questionnaire Short Form (PSQ-18) as an adaptable, reliable, and validated tool for use in various settings. Med Educ Online 2013;18:21747

|                           | Pretest*       | Post-test*      | Mean difference† | P‡   |
|---------------------------|----------------|-----------------|------------------|------|
| General satisfaction      | 3.80(0.87)     | 4.00(0.61)      | 0.19 (–0.58, 0.19) | 0.320|
| Interpersonal interaction | 3.91(0.74)     | 3.96(0.54)      | 0.05 (–0.38, 0.28) | 0.770|
| Communication             | 3.66(0.94)     | 3.85(0.41)      | 0.18 (–0.56, 0.18) | 0.310|
| Time spent with doctor    | 3.20(0.89)     | 3.70(0.53)      | 0.42 (–0.80, –0.04) | 0.020|

*Values are mean(s.d.); †values in parentheses are 95 per cent confidence intervals. ‡t test.