

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^{1,2}. 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 available³. A systematic review⁴ showed that contact isolation leads to psychological or physical problems when hospitalized patients are placed under isolation owing to a medical indication, with effects of isolation on patient mental well-being, patient satisfaction, safety, and time spent by healthcare workers in direct patient care.

A validated tool, the Patient Satisfaction Questionnaire 18 by Marshall and Hays⁵, 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

or two-tailed study was designed, with a sample size of 31 in each arm. A total of eight questions were used and were paired to result in four facets of patient satisfaction. Pretest questionnaires were provided to each patient and doctor on day 1.

Doctors were asked to provide a self-portrait from their phones on day 1. The pictures were printed at a studio and laminated. The photos were 20 x 10 cm in size. On day 2, the doctors were provided with the self-portrait, and were asked to wear it during their shifts on day 3 and day 4. The laminated pictures were reused after washing with an alcohol-based disinfectant (Fig. S1). On day 5, post-test questionnaires were given to the patients and doctors. Unpaired t test analysis was done and the two-tailed significance, standard deviation, and confidence interval were measured. Two-sided P values were considered for statistical analysis.

A total of 20 doctors and 31 patients were recruited. The doctors were positive towards the use of self-portraits on full-length PPE. Overall, doctors from three different wards found the self-portraits useful in communication between doctors, ease of identifying their colleagues, and perceived satisfaction among patients (Table 1). 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 (Table 2). Subjective questioning of the patient 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

	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.

Table 2 Results of patients' questionnaire based on Patient Satisfaction Questionnaire 18

	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.

Disclosure. Bias via the Hawthorn effect may have taken place.

Supplementary material

Supplementary material is available at BJS online

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