Assessing Workplace Culture and Identifying Targets for Creating a Positive Learning Climate

Project Description

This project will utilize a comprehensive survey to identify organizational, workplace, and personal behaviors and experiences that contribute to the learning climate of the Main Operating Room (MOR) at Stanford Hospitals and Clinics. Results of this survey will be used to create targeted interventions to improve the education of our residents, and thus quality of care delivered, in the MOR.

Rationale

The operating room learning climate is created by the individuals in it – nurses, anesthesiologists, surgeons, and scrub technicians. Each individual bears the responsibility of optimizing the health of surgical patients, something that cannot be done independently and requires effective communication, leadership, and teamwork. As organizational psychology and social-emotional learning expert Daniel Goleman writes "we transmit and catch moods from each other in what amounts to a subterranean economy of the psyche in which some encounters are toxic, some nourishing."[1]

Recent burnout statistics reveal a startling rate in anesthesiology residents: over 40%, with studies showing correlation with decreased patient care and safety.[2] Our residency program has a robust wellness curriculum (Peer Support and Resiliency in Medicine) that aims to prevent burnout. However, as recent medical education literature asserts, "factors within the learning and work environment, rather than individual attributes, are the major drivers of burnout."[3]

Anesthesiology residents spend, on average, up to half of their residency in the MOR. Patients are often complex and/or critically-ill and present for a variety of different operations, including those performed by general surgery and its subspecialties, neurosurgery, orthopedics, urology, plastic surgery, and gynecologic surgery. Thus, the MOR has the potential to be the quintessential learning experience for residents. However, our residents continually note dissatisfaction with their MOR learning experience, citing difficult interpersonal interactions and negative work environment as their most pressing concerns.

Pilot data

In exit interviews and focus groups where anonymity is assured, anesthesiology residents have cited the MOR to be the "worst rotation" and have reported "bullying" by the nurses and surgeons. Interviews with anesthesiology attendings, surgeons at all levels of training, nurses, and scrub technicians have similarly revealed reports of negative acts and behavior in the workplace.

How the project promotes diversity

This project aims to assess the experiences and behaviors of the interdisciplinary OR team, comprised of people with different social, cultural, educational, and professional

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[1] Goleman, D. (1995). *Emotional intelligence: why it can matter more than IQ*. New York, Bantam Books.

[2] De Oliveira GS, Chang R, Fitzgerald PC, et al. The prevalence of burnout and depression and their association with adherence to safety and practice standards: a survey of United States anesthesiology trainees. *Anesth Analg*. 2013;117(1):182-93.

[3] Dyrbye L, Shanafelt T. A narrative review on burnout experienced by medical students and residents. Med Educ. 2016 Jan;50(1):132-49.

backgrounds. Gaining deeper quantitative and qualitative information about how these factors might contribute to MOR culture will help to target areas for intervention to create a more positive learning climate.

Methods of design
Adapted from the MSU Workplace Behavior Survey, this 66-question assessment (attached) will focus on organizational (within the OR) and personal experiences; physical/emotional well-being and overall satisfaction; work behavior, including perception of negative acts and possible relationship to gender, age, operating room role (resident, fellow, or attending anesthesiologist; resident, fellow, or attending surgeon; OR, pre-op or PACU nurse or nurse manager; scrub technician), and length of time (weekly and in months-years) worked in the MOR.

Timeline and implementation
We will invite participants via e-mail. We aim for a total of 100 responses from interdisciplinary OR team members. Efforts to recruit participants can begin once IRB approval is obtained and continued until our goal is met, estimated to take 1-2 months. Participants will be offered a $10 gift card to complete the survey. Participants will be encouraged to take an electronic version of the survey, though paper versions will be available on request. All responses will remain anonymous and confidential.

Anticipated work product
We anticipate that this assessment will reveal the severity and prevalence of negative acts in the MOR and identify targets and populations for intervention.

Evaluation plan
Analysis of participant data will include quantitative data entry and qualitative coding.

Dissemination of results
Survey results will be shared with all disciplines involved. We plan to submit an abstract to the American Society of Anesthesiologist's meeting in 2016 and publish in a related medical education journal.

Anticipated impact of project on education and/or mentoring
Survey results will likely create an awareness of the severity of negative acts in the MOR, as well reveal inter- and intra-disciplinary areas requiring improvement.

Specific Educational Aims
Modern learning theory focuses on creation of a safe, supportive social-emotional learning climate.[4] This project aims to identify areas of negative acts that detract from this ideal so that targeted interventions can be tailored to the unique MOR learning climate.

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[4] Braddock CH III, Eckstrom E, Haidet P. The "new revolution" in medical education: Fostering professionalism and patient-centered communication in the contemporary environment. J Gen Intern Med 2004; 19 (5 Pt 2): 610–11.