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Abstract

Background
Vital and productive residents are essential to safe health care delivery, yet dissatisfaction, burnout and suicide are too prevalent among residents. The ACGME has identified the Clinical Learning Environment Review (CLER) as an important contributor to patient safety, and resident training and wellbeing. Achieving CLER’s aims requires an accurate assessment of the institution’s culture and atmosphere of trust such that residents can report medical errors and near-misses to superiors without fear. The National Initiative on Gender, Culture and Leadership in Medicine: C-Change (for culture change) has developed and validated the C-Change Faculty Survey (CFS) to document the culture of academic medicine from faculty perspectives. A close adaptation of the CFS is used to assess the learning environment and professionalism for medical students. We minimally adapted the CFS for use with residents to document their culture and the clinical learning environment and professionalism from residents’ perspectives.

Objectives
1) Develop a reliable and practical instrument to document the clinical learning environment, professionalism and culture of residency programs, and 2) Evaluate differences in perceptions of various demographic subgroups of residents.

Methods
The 10-minute, 67 item C-Change Resident Survey (CRS) was adapted from the CFS. C-Change selected a purposeful sample of 14 US sites/health systems to represent different regions of the country and public/private institutions, mostly in large urban settings. In 2015, using the CRS, C-Change surveyed electronically all residents (2,440) in the 14 sites including all PGYs in Internal Medicine (IM), General Surgery (GS) and Pediatrics (PEDS) residency programs (34 total). We conducted reliability analyses of data collected. Scales assessed 13 dimensions of the culture (DoC): Vitality; Self-efficacy; Institutional Support; Relationships/Inclusion/Trust; Values Alignment; Ethical/Moral Distress; Respect; Mentoring; Leadership Aspirations; Work-life Integration; Gender Equity; URMM Equity; and Competencies, which served as the key outcomes.
Results/Outcomes/Improvements
1,708 residents completed the survey, overall response rate was 70%, (IM: 72%, PEDS: 71% and GS: 65%). Of respondents, 792 (44%) were female, and 237 (14%) were members of underrepresented minorities (URMM). Cronbach alpha coefficients for each DoC ranged from 0.79 – 0.85. The rich dataset showed that residents valued their work, but 50% self-reported burnout and for example, 21% of residents agreed with: “I have been reluctant to express my opinions for fear of negative job consequences” and 32% agreed with: “I often feel the need to hide what I really think.”

Significance/Implications/Relevance (beyond local setting)
The CRS is a reliable (and to our knowledge, the first of its kind) quantitative assessment of the clinical learning environment and professionalism for residents. DoC findings suggest that programs do not optimally facilitate wellbeing of many residents. Enhancing resident vitality and wellbeing requires attention to resident relationships, and feelings of trust and inclusion. Additional analyses will delineate the effect of PGY, specialty, institutional attributes, gender and URMM status on the culture for residents. The culture of residency programs is important for optimal clinical care, resident wellbeing and medical education in US AHCs. These data will provide valuable information to residency program directors seeking to optimize the culture of safety.