Assessing Institutional Culture for Inclusive Excellence in the Academic Health Sciences

Linda H. Pololi, MBBS, FRCP[1], *Mark Brimhall-Vargas, PhD*[1], *and Maria T. Madison, ScD*[1]

[1]National Initiative on Gender, Culture and Leadership in Medicine: C-Change, The Heller School for Social Policy and Management, Institute for Economic and Racial Equity, Brandeis University, Waltham, MA, USA

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Drawing on the perspectives and expertise of all sectors of the population enhances excellence and scientific rigor in the health sciences. Inclusion of gender and racial groups underrepresented in the health sciences produces higher rates of scientific innovation.[1,2] Furthermore, increased representation of historically underrepresented racial and ethnic groups in the medical workforce improves the outcomes for patients and reduces health disparities, since systemic racism is deeply embedded in US healthcare.[3] Unfortunately, despite the demonstrated benefits of diversity, there are renewed scientifically unfounded attacks on efforts in the health sciences and higher education focusing on inclusion, diversity, and equity; however, our data and the work of others suggest that these efforts actually enhance scientific rigor and integrity, and reduce bias.

The novel concept of "inclusive excellence" was put forward by Williams and colleagues[4] in 2005 to address the dearth of students historically underrepresented by race and ethnicity in higher education, increase their presence, and support their performance and success in the educational system. Inclusive excellence was defined as excellence that (1) draws on the expertise and skills of a broad range of different groups of people; (2) provides equal opportunity, regardless of differences; and (3) supports all people in attaining their optimal contributions and accomplishments. Recently, there has been renewed interest in a culture of inclusive excellence, and a number of studies have illustrated the benefits linked to having diverse team members in terms of creativity, decision making, and science outcomes.[1,2] Notably, the National Institutes of Health (NIH) have included this outcome as an objective for research in the biomedical and health sciences.[5]

> "NIH's ability to help ensure that the nation remains a global leader in scientific discovery and innovation is dependent upon a pool of highly talented scientists from diverse backgrounds who will help to further NIH's mission. Research shows that diverse teams working together and capitalizing on innovative ideas and distinct perspectives outperform homogenous teams. Scientists and trainees from diverse backgrounds and life experiences bring different perspectives, creativity, and individual enterprise to address complex scientific problems. There are many benefits that flow from a diverse NIH-supported scientific workforce, including: fostering scientific innovation, enhancing global competitiveness, contributing to robust learning environments, improving the quality of the research, advancing the likelihood that underserved or health disparity populations participate in, and benefit from health research, and enhancing public trust."

Additionally, the Association of American Medical Colleges continues to speak out about and act for change to eliminate racism in academic medicine. Following these leads and for similar reasons, numerous universities and organizations are making program-supporting awards regarding inclusive excellence.

Nevertheless, organizational culture change is complex and difficult in higher education, and may be especially hard in medical schools since the campus usually extends to include one or more teaching hospitals where the practice of medicine is learned. In the medical literature, health disparities have been widely reported, and therefore having a diverse faculty capable of identifying, understanding, and addressing health disparities is vitally important.

METRICS OF INCLUSIVE EXCELLENCE

Despite this widespread interest in promoting cultures with high inclusive excellence, an assessment framework for such a culture has not been fully articulated. This may be one factor impeding the speed of progress in achieving such changes in academic medicine and in higher education more generally. Validated work is necessary to move the field forward. A recent Antiracist Institutional Accountability Project report found "measurement was a weak link in sustaining organizational accountability," and

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recommended use of clearly defined metrics.[6] Williams proposed the development of an inclusive excellence three aspects-scorecard quantified in terms of (1) composition and success levels of historically underrepresented people; (2) diversity embedded in courses and curriculum; and (3) testing of learning.[4]

Building on this scorecard approach, we propose that the C-Change Faculty Survey (CFS) is a useful tool and framework for assessing the lived experience of the workplace for faculty and students, expanding on Williams' fourth aspect (the "climate") that was limited to the following: feelings of belonging, incidents of harassment based on race, ethnicity, gender and sexual orientation, and attitudes toward members of diverse groups.[4] We believe the metrics of inclusive excellence also need to take into consideration broader dimensions of the culture and the perspectives of all subgroups of people in an organization (*including* the dominant majority) as to their experience of the different dimensions of the culture. The experiences of all groups of people need to be assessed to create the desired culture of inclusive excellence.

The validated C-Change Faculty Survey has been used extensively at more than 100 medical schools and institutions in the USA and internationally to assess institutional culture, and facilitate and document program evaluation and culture change. The survey maps to many aspects of inclusive excellence and has been used by important NIH initiatives, e.g., NIH FIRST Program, with the goal of institutional culture change toward inclusive excellence. The CFS began as an in-depth qualitative study of faculty from five nationally representative US medical schools. Based on those findings, we carefully constructed items to be included in a quantitative survey instrument to determine the extent to which our sobering qualitative findings were representative of medical schools generally. We administered the CFS to a stratified randomly selected sample of 26 US medical schools, stratified by public/private funding, geographic region of the USA, and NIH research-intensive/community care oriented.[7]

Over the past decade, we have continually refined the survey items and expanded its focus on dimensions directly relevant to addressing marginalization of underrepresented groups, racism, and sexism. The dimensions assess both faculty individual experiences of the workplace environment and culture, and faculty perceptions of the institution (Table 1). The CFS also assesses sexual harassment, discrimination, and intention to leave. In addition, the survey has been adapted and validated for residents and medical students. Scale items are scored on 5-point Likert agreement scales (except the Valuing Diversity, Antisexism and Antiracism, and Change Agency for Equity belief scales are anchored on a 7-point ordinal scale ranging from completely false to completely true). Table 1 presents a brief outline of the survey and coefficients of reliability for each dimension of the culture.

Table 1 Outline of the C-Change Faculty Survey: Dimensions of the Culture with the Number of Items and Estimated Alpha Coefficients for Each Dimension

Dimension of the Culture	a
VITALITY: Being energized by work (5 items) *Find work energizing and personally meaningful; self-assessment of burnout*	0.80
SELF-EFFICACY IN CAREER ADVANCEMENT: Confidence in ability to advance in career (3 items) *Confident in ability to progress in career and overcome barriers to advancement*	0.80
INSTITUTIONAL SUPPORT: Perception of institutional commitment to faculty advancement (4 items) *Perceive that the institution is committed to faculty success and professional development; provides career help, feedback and appropriate credit; faculty feel part of a supportive community*	0.88
RELATIONSHIPS/INCLUSION/TRUST: Faculty relationships, feelings of trust and inclusion (5 items) *Faculty relationships; being in a trustworthy environment; able to express views authentically; feelings of belonging and being included*	0.84
VALUES ALIGNMENT: Alignment of faculty personal values and observed institutional values (6 items) *Extent of alignment of faculty personal values with observed institutional values vs. espoused values, including value placed on teaching, clinical excellence and inclusive decision making*	0.79
ETHICAL/MORAL DISTRESS: Feeling ethical or moral distress and being adversely changed (8 items) *Feel ethical or moral distress; need to behave unethically to succeed; being adversely changed, developing personally undesirable behaviors such as aggression, deceit, self-promotion*	0.79
RESPECT: Faculty feel respected; bullying (8 items) *Feel valued and personally respected; bullying and intimidation*	0.86
MENTORING (6 items) *Mentoring received, quality, quantity, and key components*	0.92
LEADERSHIP ASPIRATIONS: Aspiring to be a leader in academic medicine (4 items) *Want to make positive change; aspire to be a leader in academic medicine*	0.72
WORK-LIFE INTEGRATION: Institutional support for managing work and personal responsibilities (4 items) *Institutional support for managing work-life integration; able to take time for personal and family issues; maintain a reasonable balance in life*	0.75
GENDER EQUITY: Perceptions of equity for female faculty (7 items) *Perceive that their institution treats female faculty equitably and supports the advancement of women; unconscious bias*	0.80
EQUITY FOR UNDERREPRESENTED FACULTY: Perceptions of equity for URM* faculty (5 items) *Perceive that their institution treats URM faculty equitably; supports the advancement of URM faculty; demonstrates commitment to diversity*	0.84
INSTITUTIONAL CHANGE EFFORTS FOR DIVERSITY (3 items) *Perceive good faith effort by their institution to advance female and underrepresented faculty*	0.84
INSTITUTIONAL CHANGE EFFORTS FOR FACULTY SUPPORT (5 items) *Perceive good faith effort by their institution to improve support for faculty through initiating policy and programmatic change*	0.86

Dimension of the Culture	a
VALUING DIVERSITY: ATTITUDES AND BEHAVIORS (8 items) (a) *attitudes: valuing diversity in work teams* (b) *behaviors: consideration of diversity in recruitment and advancement*	0.89
ANTI SEXISM AND ANTI RACISM SKILLS (4 items) *Extent to which faculty have the skills to identify and effectively respond to sexism and racism*	0.84
CHANGE AGENCY FOR EQUITY (7 items) *Confident in ability to act as a change agent to oppose racism and sexism*	0.82

The CFS also includes items on sexual harassment, intention to leave, and non-binary identity

MOVING FORWARD

We propose that the 17 dimensions of the culture assessed by the C-Change survey are a reliable metric to measure a culture of inclusive excellence. Any proposed culture change toward inclusive excellence must benefit everybody in an organization, including majority groups. Only then will most people recognize and accept that the changes proposed will benefit them personally, in addition to benefiting those who have been marginalized by the academic culture. For those who wish to pursue this work, the C-Change Faculty Survey is scientifically rigorous, valid, and available. Our hope is for the Survey to be a helpful instrument used to support the goals and needs of caring for a diverse patient population, for excellence in medical education, to conduct stellar research, and to enhance the ethnic, racial, and gender composition of faculty and leadership in healthcare.

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Abbreviations *a: Estimated alpha coefficient; URM: individuals from racial and ethnic groups that have been shown by the National Science Foundation and the National Institutes of Health to be underrepresented in health-related sciences and STEM fields on a national basis*

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Corresponding Author: *Linda H. Pololi, MBBS, FRCP; National Initiative on Gender, Culture and Leadership in Medicine: C-Change, The Heller School for Social Policy and Management, Institute for Economic and Racial Equity, Brandeis University, Waltham, MA, USA (e-mail: lpololi@brandeis.edu).*

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Declarations:

Conflict of Interest: *The authors have no conflicts of interest to declare. That the survey under discussion is funded at any time by financial support for administering the survey, and analyzing and reporting data, and that any investigator could be paid from these funds may seem to qualify in the strictest sense as a potential conflict of interest in a paper reporting on the use of the survey. In this regard, the National Initiative on Gender, Culture, and Leadership in Medicine, C-Change, is entirely externally funded. All grants and contracts from various institutions or investigators requesting our survey administration, "blind" data analysis of collected data, and reporting are awarded to Brandeis University, which pays some salary support to statisticians and some of the investigators (LP, MBV). C-Change maintains rigorous scientific standards for conducting its studies, and there is complete separation of income flowing into the University from the survey administration and analysis.*

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