Original Research

Mentoring Faculty: A US National Survey of Its Adequacy and Linkage to Culture in Academic Health Centers

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Introduction: The aims of this study were to (1) describe the quantity and quality of mentoring faculty in US academic health centers (AHCs), (2) measure associations between mentoring and 12 dimensions that reflect the culture of AHCs, and (3) assess whether mentoring predicts seriously contemplating leaving one's institution.

Methods: During 2007–2009, our National Initiative on Gender, Culture and Leadership in Medicine (C - Change) conducted a cross-sectional study of faculty from 26 representative AHCs in the United States using the 74-item C - Change Faculty Survey to assess relationships of faculty characteristics and various aspects of the institutional culture (52% response rate). Among the 2178 eligible respondents (assistant, associate, and full professors), we classified their mentoring experience as either inadequate, neutral, or positive.

Results: In this national sample, 43% of the 2178 respondents had inadequate mentoring; only 30% had a positive assessment of mentoring. There was no statistical difference by sex, minority status, or rank. Inadequate mentoring was most strongly associated with less institutional support, lower self-efficacy in career advancement, and lower scores on the trust/relationship/inclusion scale. The percent of faculty who had seriously considered leaving their institution was highest among those who had inadequate mentoring (58%), compared to those who were neutral (28%) or had positive mentoring (14%) (all paired comparisons, $p < .001$).

Discussion: In a national survey of faculty of US AHCs, mentoring was frequently inadequate and this was associated with faculty contemplating leaving their institutions. Positive mentoring, although less prevalent, was associated with many other positive dimensions of AHCs.

Key Words: mentoring, faculty development, faculty, workforce development/issues, culture of academic health centers

Introduction

Mentoring is widely recommended in medical schools as a means to "revitalize academic medicine" and decrease faculty turnover.[1–4] The benefits of mentoring programs in academic medicine have been described by a variety of qualitative and quantitative reports.[5–7] Most published literature describing mentoring in medical schools focuses on physicians-in-training or junior faculty,[5] and most studies were at single institutions or within subspecialties. In single institution studies of junior faculty, mentored faculty (36%) were more likely to be men (odds ratio: 2.9) and clinician-scientists (odds ratio: 10.3). In addition, mentored clinician-educators reported spending significantly more time on scholarly activity (20.6% vs 11.5%, $p < .01$)[8]

and higher levels of self-efficacy in career and skill development,[9,10] academic success (awards, grants, teaching/mentoring, publications),[11] career satisfaction,[12] and scholarly productivity.[13,14]

A series of studies has focused on mentoring of research careers in academic medicine.[4,15–19] One national study conducted a decade ago reported that the 54% of junior faculty who were mentored perceived more institutional support for teaching, research, and administration; allocated more time to research each week; were more satisfied at work; and believed they had better research skills.[15] A recent national survey of junior faculty research award recipients of National Institutes of Health (NIH) clinical scientist development (K08) and patient-oriented research career development (K23) grants (these awards mandate mentoring) reported very low dissatisfaction with mentoring, and mentoring was significantly associated with career satisfaction.[20]

In a systematic review of recruitment and retention interventions for underrepresented in medicine minority (URMM) faculty, Rodriguez et al. reported that both mentoring and faculty development can increase retention, academic productivity, and promotion rates.[21] In considering the mentoring needs of senior faculty, a 2012 national survey showed that 47% of senior faculty in family medicine desired a mentor and had significant mentoring needs related to career advancement, work-life balance, maintaining health, and retirement planning.[22]

The aims of this study were to (1) describe the quantity and quality of faculty mentoring at all career stages in US academic health centers (AHCs), (2) measure associations between mentoring and 12 dimensions that reflect the culture of AHCs, and (3) assess whether mentoring predicts seriously contemplating leaving one's institution.

Methods

We developed the C - Change Faculty Survey as part of the National Initiative on Gender, Culture and Leadership in Medicine, which aims to facilitate change in the culture of academic medicine, so as to maximize the contributions of all faculty and trainees and increase diversity in leadership (C - Change stands for culture change; http://cchange.brandeis.edu). From 2007 to 2009, our C - Change research team conducted a cross-sectional study of US faculty using the C - Change Faculty Survey.

Each dimension of the culture assessed by the survey is composed of a unique set of items (without overlap among dimensions), providing evidence of the C - Change instrument's construct validity (TABLE 1). The dimensions have been used repeatedly in statistical models and have been reported in published papers to describe faculty retention,[23] and to evaluate the role of gender,[24] URMM status,[25] and faculty vitality[26] in understanding the culture of academic

medicine. The instrument's content validity is established by its basis on qualitative research, extensive content review, and ongoing use. The C - Change Survey has been used in numerous US, Canadian, and UK medical schools, and has been adapted for use with medical students and residents to assess the learning environment and professionalism. Detailed descriptions of our survey methods have been previously published.[23]

Sample

Selecting Academic Health Centers (AHCs). Five schools in the US survey sample (selected to vary by region and public/private status), collaborated with the C - Change research team with the goal of bringing about change in the culture of academic medicine in their own schools. Then, from the Association of American Medical Colleges' (AAMC) list of all US medical schools, we (the C - Change research team) created a stratified random sample of an additional 21 medical schools to ensure that the 26 schools together spanned all important types (purposefully including one small and one historically black school in the 21 schools), and achieved a distribution similar to the overall proportion of AAMC schools by geographic region and public/private sector.

Sampling Faculty Within AHCs. Using data from the AAMC and the AHC deans, we stratified faculty by sex, age (under 39 years of age, 39–47 years, and 48 years and older), and URMM status. We selected 25 faculty members from each of 6 sex-by-age categories for a base sample of 150 per AHC. We then oversampled URMM faculty and female surgeons to ensure adequate numbers for analysis. This resulted in a list of 4578 faculty who received the electronic survey with reminders at 2- to 3-week intervals and a phone follow-up and a hard-copy mailing for nonresponders. We excluded from the present analytic sample faculty who reported their rank as anything other than assistant, associate, or full professor (TABLE 2).

Measures

We derived the domains and items of our survey questions from themes identified in previous C - Change qualitative studies[27–32] in conjunction with a literature search and reviews of relevant instruments.[33–38] The 74-item survey related to advancement, engagement, relationships, diversity and equity, leadership, institutional values and practices, and work-life integration. Items used 5-point Likert scales (range: 1 = strongly disagree to 5 = strongly agree). We obtained human subjects institutional approvals from Brandeis University, Boston University, and the AAMC.

Questions about mentoring were incorporated into the original C - Change Faculty Survey in recognition of the

TABLE 1. C - Change Dimensions of the Culture[a]

Dimensions of the Culture	Number of Items	Content
Engagement/vitality: Being energized by work	5	Work personally meaningful; feel energized by work; look forward to work; burn out
Self-efficacy in career advancement: Self-confidence in ability to advance in career	4	Satisfied with career advancement; advancement is equitable; confident in ability to progress in career and overcome professional barriers
Institutional support: Perception of institutional commitment to faculty advancement	7	Feel part of a supportive community; institution committed to faculty success and facilitates professional development; receive constructive feedback, appropriate credit and help to advance career
Relationships/inclusion/trust: Faculty relationships and feelings of trust and inclusion	6	Faculty trusting and open; colleagues value contributions; feel ignored/invisible or isolated; reluctant to express opinion because of negative consequences
Values alignment: Alignment of faculty personal values and observed institutional values	9	Institution committed to serving the public and actions well aligned with stated values and mission; institution puts own needs ahead of educational and clinical missions; rewards excellence in clinical care and teaching; faculty values well aligned with school's; faculty morale
Ethical/moral distress: Feeling ethical or moral distress and being adversely changed by the culture	8	Workplace is dehumanizing, discourages altruism; pressure to behave unethically, be deceitful; compromise values to work here; be more aggressive; others take credit for work; self-promotion needed to get ahead
Leadership aspirations: Aspiring to be a leader in academic medicine	2	Desire to be leader and be influential in making change happen at institution
Gender equity: Perceptions of equity for female faculty	4	Harder for female faculty to get ahead, unfair treatment because of gender; institution actively supports women in achieving leadership and treats women and men equitably for promotion
URMM[b] equity: Perceptions of equity for URMM faculty	5	Harder for minority faculty to get ahead, unfair treatment because of race or ethnicity; institution supports minorities in achieving leadership and treats minorities and non-minorities equitably for promotion; institution demonstrate that it values diversity
Work-life integration: Institutional support for managing work and personal responsibilities	4	Workplace is family-friendly, time for personal/family issues; reasonable balance in life
Institutional change efforts for diversity: Good faith effort by institution to advance female and URMM faculty	3	(In past year) institution made effort to recruit minority faculty and have women and minority faculty in positions of leadership
Institutional change efforts for faculty support: Good faith effort by institution to improve support for faculty	6	(In past year) institution has strengthened mentoring, humanized policies and practices, instituted family-friendly policies; responded to faculty input; invested in faculty success; open to change

[a]The C - Change Faculty Survey© was used to survey 4578 full-time faculty at 26 representative US medical schools from 2007 to 2009 about their organizational culture. Twelve dimensions of institutional culture were derived from factor analysis and semantic review. C - Change = culture change.
[b]URMM = underrepresented in medicine minority faculty.

TABLE 2. Characteristics of the Sample: 2178 Faculty at 26 Medical Schools,[a] 2007–2009

Characteristic	No. (%)[b]
Faculty variables	
Female	1152 (34)
URMM[c] status	530 (9)
Age, mean (SD[d])	49 (9)
Rank:	
Assistant professor	879 (38)
Associate professor	672 (31)
Professor	627 (31)
Role:	
Clinician	1029 (49)
Research	687 (31)
Administrator	241 (10)
Educator	221 (10)
AHC variable	
NIH[e] research funding rank	
Top third	7 (27)
Middle third	12 (46)
Bottom third	7 (27)
NIH[e] research funding rank, mean (SD[d])	57 (32)

[a]The authors surveyed 4578 full-time faculty at 26 representative US medical schools about their organizational culture; 2178 responses were used for this analysis. Due to creation of newly imputed data sets, which included reimputing the faculty rank variable used to select cases for analysis, the total *N* available for analysis differs slightly from previous reports from this survey.
[b]Percentages and means of individual characteristics are adjusted with sampling weights. Women (53% of sample) and faculty from underrepresented in medicine minority groups (23% of sample) were oversampled and weighted to represent national averages.
[c]URMM indicates underrepresented in medicine minority faculty.
[d]SD = standard deviation.
[e]NIH = National Institutes of Health.

importance of faculty mentoring for career success and to better assess the prevalence and quality of mentoring at the national level. We used 4 survey items to create a composite variable to assess whether faculty perceived mentoring as positive, neutral, or inadequate. For faculty who had received mentoring, additional items assessed satisfaction with the amount of mentoring received and with the quality of mentoring. If a respondent indicated that he or she had not received mentoring, subsequent questions asked for the reason; the 2 options were "desired a mentor but none was available" and "did not desire a mentor."

Mentoring was assessed as inadequate for those who (1) desired a mentor but none was available, or (2) received mentoring but for whom both the amount *and* quality were less than satisfactory (ie, faculty indicated strongly disagree, somewhat disagree, or neutral when asked). Mentoring was deemed neutral for those who (1) did not desire a mentor, or (2) did not receive mentoring and indicated the reason as "other," or (3) received mentoring but either the amount *or* the quality was less than satisfactory (but not both). Faculty were considered to have a positive mentoring experience if they received mentoring and both the amount *and* the quality of mentoring were satisfactory (4 or 5 on a 5-point scale).

We used factor analysis and examined individual survey items for meaning and context to identify 12 dimensions of institutional culture.[23,39] Cronbach's alpha reliability coefficients ranged from .76 to .90 for all scales except a 2-item measure of leadership aspirations which had an alpha coefficient of .66. The scales are described in greater detail in TABLE 1 and in previous publications.[23]

Several personal and professional demographic items were also included in the analysis: gender; URMM status; rank; and primary role of clinician, researcher, administrator, or educator; as well as whether a faculty member had seriously considered leaving his or her institution because of dissatisfaction in the prior year. We also examined the AHC's NIH research awards ranking as a predictor of mentoring adequacy.

Analytic Overview

We used sampling weights based on sex, age, and URMM characteristics to generalize our findings to the national population of AHC faculty.[23] To address missing values, 10 multiply imputed data sets were estimated using IVEware 2002 (Survey Research Center, Institute for Social Research, University of Michigan).[40] Multiple imputation yields point estimates and confidence intervals that are less biased than a complete case analysis (listwise deletion).[41] Primary analyses were conducted using IVEware to accommodate both the weighting and multiple imputations. Estimates of the effects of mentoring on the dimensions of institutional culture were obtained using multiple linear regression analysis with accommodation of the clustering within institution. The relationships of sex, URMM, and NIH ranking to mentoring were estimated using hierarchical ordered logit models (with mentoring as the outcome), and the relationship of leaving the institution for dissatisfaction to mentoring was estimated using a hierarchical logistic regression model (with leaving intention as the outcome) using HLM version 7.0 (Scientific Software, Inc., Skokie, IL)[42] and the same multiply imputed data sets.

Results

Of the 4578 faculty invited to participate, 2381 responded (52% response rate) and 2178 were eligible for analysis (assistant, associate, or full professor). TABLE 1 describes the sample characteristics.

Satisfaction With Mentoring

In this cross-sectional national study, the majority of faculty were dissatisfied with the mentoring they had available to them, and only 30% of faculty were satisfied with both quality and amount of mentoring they received (TABLE 3). There was no significant difference in satisfaction by sex, URMM status, or rank. Of note, senior faculty—at the rank of associate or full professor—were just as likely to desire mentoring and just as likely to be dissatisfied with their mentoring as assistant professors. Those faculty who identified research as their primary role were most satisfied with their own mentoring, and faculty at institutions with more NIH-funded research rated their mentoring higher.

Mentoring and Culture

Receiving mentoring was positively associated with all dimensions of the culture measured by the C - Change Survey (TABLE 4). Mentoring scores are averaged across the

TABLE 3. Mentoring Assessment by Faculty Characteristics, 2007–2009[a]

	Mentoring Assessment					
	Inadequate	Neutral	Positive	*t*-Test	Cohen's d	*p*-Value
All Faculty	43%	28%	30%			
Sex						
Male[b]	42%	29%	29%	—		
Female	43%	26%	31%	−.124	.005	.901
URMM[c] status						
Non-URMM[b]	43%	28%	30%	—		
URMM	43%	29%	28%	.183	.008	.855
Rank						
Full professor[b]	40%	31%	29%	—		
Assistant professor	44%	25%	31%	.703	.030	.482
Associate professor	43%	28%	29%	.660	.028	.510
Role						
Clinician[b]	48%	28%	24%	—		
Researcher	31%	29%	40%	−7.492	.323	<.001
Administrator	40%	26%	34%	−3.021	.130	.003
Educator	52%	26%	22%	.766	.033	.444
NIH[d] research funding rank	59	59	53	25.665	1.060	.021

[a]The authors surveyed 4578 full-time faculty at 26 representative US medical schools about their organizational culture; 2178 responses were used for this analysis. Mentoring was deemed inadequate for those who (1) desired a mentor but none was available, or (2) received mentoring but for whom both the amount *and* quality were less than satisfactory. Mentoring was deemed neutral for those who (1) did not desire a mentor, or (2) received mentoring, but either the amount *or* the quality was less than satisfactory (but not both). Faculty were considered to have a positive mentoring experience if they received mentoring and both the amount *and* the quality of mentoring were satisfactory (4 or 5 on a 5-point scale).
We present the comparison between inadequate and positive mentoring in terms of a standardized effect size (Cohen's d).
[b]Effect of female is compared to the reference group, male. Effect of URMM status is compared to the reference group, non-URMM. Effects of assistant and associate professor are compared to the reference group, full professor. Effects of researcher, administrator, and educator are compared to the reference group, clinician.
[c]URMM = underrepresented in medicine minority faculty.
[d]NIH = National Institutes of Health. Lower rankings reflect higher NIH funding.

TABLE 4. Association Between Faculty Mentoring Assessment and Dimensions of the Culture, 2007–2009[a]

Dimensions of the Culture[b]	Mentoring Assessment[c]			Comparing Inadequate and Positive Mentoring[c]		
	Inadequate	Neutral	Positive	Difference	*t*-Test	*p*-Value
Institutional support: Perception of institutional commitment to faculty advancement	2.91	3.11	3.93	1.02 (1.10)	25.45	<.001
Self-efficacy in career advancement: Confidence in ability to advance in career	3.33	3.67	4.12	.79 (.67)	16.13	<.001
Relationships/inclusion/trust: Faculty relationships and feelings of trust and inclusion	3.27	3.56	4.03	.76 (.73)	16.88	<.001
Institutional change efforts for faculty support: Good faith effort by institution to improve support for faculty	2.78	2.87	3.48	.70 (.55)	12.70	<.001
Values alignment: Alignment of faculty personal values and observed institutional values	3.02	3.18	3.67	.65 (.66)	15.40	<.001
Engagement/vitality: Being energized by work	3.70	3.88	4.26	.56 (.52)	12.17	<.001
Work-life integration: Institutional support for managing work and personal responsibilities	3.09	3.29	3.64	.55 (.47)	11.08	<.001
URMM[d] equity: Perceptions of equity for URMM faculty	3.61	3.82	4.11	.50 (.42)	9.68	<.001
Institutional change efforts for diversity: Good faith effort by institution to advance female and URMM faculty	3.47	3.60	3.96	.49 (.40)	9.20	<.001
Ethical/moral distress: Feeling ethical or moral distress and being adversely changed by the culture	2.53	2.36	2.05	.48 (.55)	−12.66	<.001
Gender equity: Perceptions of equity for female faculty	3.40	3.61	3.83	.43 (.34)	7.78	<.001
Leadership aspirations: Aspiring to be a leader in academic medicine	3.99	3.87	4.12	.13 (.13)	2.95	.003

[a]The authors surveyed 4578 full-time faculty at 26 representative US medical schools about their organizational culture; 2178 responses were used for this analysis. Mentoring was assessed as inadequate for those who (1) desired a mentor but none was available, or (2) received mentoring but for whom both the amount *and* quality were less than satisfactory. Mentoring was deemed neutral for those who (1) did not desire a mentor, or b) received mentoring, but either the amount *or* the quality was less than satisfactory (but not both). Faculty were considered to have a positive mentoring experience if they received mentoring and both the amount *and* the quality of mentoring were satisfactory (4 or 5 on a 5-point scale). We present the comparison between inadequate and positive mentoring in terms of a standardized effect size (Cohen's d) in parenthesis.
[b]Twelve dimensions of institutional culture were derived from factor analysis and semantic review. Scale values range from 1 to 5; higher is better, except for ethical/moral distress.
[c]Values represent the difference between the mean dimension score for faculty who found mentoring inadequate versus those who reported a positive mentoring experience.
[d]URMM = underrepresented in medicine minority faculty.

items, so each score and differences between scores may be interpreted on the original 1–5 Likert scale; furthermore, to facilitate comparisons with other studies, we present the comparison between inadequate and positive mentoring in terms of a standardized effect size (Cohen's d). Most strongly linked with mentoring were perceptions of institutional support, self-efficacy in career advancement, and trusting relationships. Next most closely associated with mentoring were perceived alignment of faculty and institutional values, faculty vitality, and work-life integration.

Among faculty in the analytic group, 35% indicated that in the prior year, they had seriously considered leaving their institution because of dissatisfaction. The percentage was highest among those who had inadequate mentoring (58%) compared to those who were neutral (28%) or had positive mentoring (14%) (all pairwise comparisons, *p* < .001).

Discussion

This national study of academic health centers highlights the general inadequacy of faculty mentoring, the threat it poses to faculty retention, and the positive associations of adequate mentoring. Faculty with high scores of perceived institutional support are most likely to report mentoring of sufficient quality and quantity. One could assume, therefore, that good mentoring is possibly perceived by faculty as an indication of dedicated institutional efforts to support faculty.

Since mentoring is linked to several dimensions of the culture that also predict intention to leave one's institution or academic medicine[23] (ie, low degree of relationships/inclusion, values alignment, vitality, and self-efficacy in career advancement), we suspect that faculty who are satisfied with their mentoring would also be less likely to leave their institutions or academic medicine. Our findings are congruent with this hypothesis and prior studies.[2–4] Given the high turnover of faculty in AHCs and its costly consequences, mentoring might very positively impact faculty attrition.

Of note, our study showed no difference in satisfaction with mentoring between female and male faculty. The prior literature is inconsistent in this area. Similar to our findings, Palepu,[9] Feldman,[15] and Fried[43] found no significant differences between men and women faculty in the prevalence and quality of mentoring relationships. However, more women believed that inadequate mentoring negatively affected their career advancement. In studies of faculty with NIH awards, where mentoring is required, it is not surprising that there is no significant differences in having a mentor or satisfaction with mentoring between men and women. One such study[20] showed that women were slightly more dissatisfied with mentoring from all sources, but that same study did not detect statistically significant differences in satisfaction based on mentor or mentee gender or gender concordance of the mentoring pair. A systematic review of mentoring in academic medicine,[5,7] demonstrated the paucity of quality studies that would allow conclusions to be made about the effect of mentoring on career development. Two single-center studies included in the review did include gender differences in their findings. One reported that men were 3 times as likely to describe a mentoring relationship as a positive experience that influenced their careers.[44] The other[43] showed that more women than men (32% vs 10%; $p = .004$) believed their mentor used their work to advance their own career. A 2009 qualitative study revealed that more women than men felt it was challenging to find mentors who could provide them with guidance around work and life balance.[45]

Although there is consensus that URMM faculty could benefit from mentoring,[21,46–48] variables such as mentee/mentor racial concordance, inclusive climate, URMM leadership, and/or mentor competence if unmeasured and unaccounted for, may be confounders that skew URMM faculty satisfaction with mentoring toward the positive or negative. The literature is inconsistent regarding the prevalence and quality of mentoring for URMM as compared with nonminority faculty. Similar to the reported findings in our very large sample of URMM faculty, Ramanan found no differences among URMM faculty in their satisfaction or quality of mentoring when compared to white faculty.[49]

Although many institutions are making efforts to provide mentoring for junior faculty, most institutions do not explicitly recognize a need for or choose to provide mentoring for midcareer faculty and full professors. Our data show the need for mentoring in this group and we make the argument that it may be even more important to provide mentoring for midcareer and senior faculty, as they are important, numerous, and influential (and expensive) subgroups of any school's faculty population. Some schools have implemented effective in-depth mentoring programs for midcareer faculty, such as the Mentoring for Collaborative Leadership in Academic Medicine (M-CLAM) program in the Department of Medicine at Weill Cornell Medical College.[50]

Study Strengths and Limitations

The strengths of the study include the national, representative sample of 26 AHCs, and the theoretical grounding of the conceptual model and instrument development. Limitations include an imperfect response rate and the possibility that the statistical associations we found might not reflect causal relationships because of residual or unmeasured confounding. However, the large sample and varied demographics of the participating institutions and consistency of findings with existing literature support generalizability of our findings. Another limitation is that we don't know how faculty respondents interpreted the word *mentoring*. Although the data reported in this study were collected 6–8 years ago, we have conducted ongoing and recent C - Change surveys in multiple medical schools in the United States, Canada, and the United Kingdom using the same measures. Although the survey schools were not randomly selected, the reported experiences of faculty regarding mentoring are generally highly consistent with our national data and findings. The exceptions are the last 5 organizations that we have surveyed, in which the results were even less positive.

It is disappointing to find a high degree of dissatisfaction with mentoring, even though mentoring has so many positive associations. Given the different interpretations of the word *mentoring,* future research will need to focus and build on what mentoring activities are of most value to faculty and implement mentoring activities accordingly.[45,51,52] Recent changes to the ongoing C - Change Faculty Survey delineate various components of mentoring and may help to

Lessons for Practice

- Mentoring for faculty in academic medicine is frequently inadequate.

- Positive mentorship is associated with positive dimensions of the culture, such as perceptions of institutional support, self-efficacy in career advancement, trusting relationships, perceived alignment of faculty and institutional values, faculty vitality, and work-life integration.

- Lack of mentorship is associated with faculty intention to leave their institution.

answer this question.[53] It will also be important to evaluate the efficacy of various mentoring methods and models. Good mentors are in short supply, and mentoring is sometimes described as a "scarce resource." Given the positive impact of mentoring, however, organizations need to consider alternative mentoring models that are reliably effective, such as a facilitated group peer-mentoring model,[50] and that do not rely on the traditional dyadic model, which is largely proposed in most US medical schools despite evidence of its lack of sustainability and satisfactory outcomes.

We conclude that mentoring is associated with characteristics that are predictive of high faculty vitality.[26] While we are unable to prove a causal relationship, it seems likely that high self-efficacy in career advancement, vitality, a sense of belonging and trusting relationships, and values alignment are all positive outcomes of good mentoring and constitute desired attributes of the culture in academic medicine. The constellation of mentoring, relationships, values alignment, and vitality appears to be a worthwhile focus for dedication of resources devoted to professional development in AHCs.

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