

Obstacles to Promotion? Values of Women Faculty about Career Success and Recognition

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ABSTRACT

Purpose. To assess attitudes of female faculty about career progress, resources for career development, and values related to academic success and recognition.

Method. In 1997, the authors surveyed all faculty at Virginia Commonwealth University School of Medicine and its associated Veterans Affairs Medical Center.

Results. Of 918 faculty, 567 (62%) responded to the survey; 33% of the respondents were women. Compared with men, women faculty were less likely to be tenured or at the level of professor, spent more time in clinical activities, had less time for scholarly activity, and reported slower career progress. Women were more likely to report that promotion and tenure criteria had not been reviewed with them. Significant differences were found between female physicians and non-physician faculty; female physicians reported the least time for scholarly activities and

poorest understanding of promotion and tenure criteria. When the authors asked faculty how they valued certain indicators of career success, women were less likely to value leadership than were men. Female physicians were less likely to value scholarship and national recognition as indicators of their career success.

Conclusion. This survey found important differences in career progress of male and female faculty, with women reporting less time for career development. In addition, there were differences in values related to career success and recognition, which were most pronounced for female physicians. These differences may have an important impact on promotion for women in general and particularly for female physicians.

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The proportion of women among medical school graduates has significantly increased in the last two decades (nationally, 8% in 1970 to 42% in 1997),

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as has the number of women entering faculty positions at academic medical centers. However, over the same period of time, the proportion of women among faculty at the level of professor has remained the same (11%).¹ National data reveal that female faculty are much less likely to be at higher academic ranks and to receive tenure.^{2–5} These disparities persist even after adjustment for hours of work and specialty. In addition, very few women are in leadership roles such as division head, department chair, or dean.⁶

Reasons given for the slower progress of women at academic medical centers include less preparation in postdoctoral and fellowship training, competing de-

mands from greater family responsibility, lack of understanding of the criteria for promotion and tenure, inadequate mentoring, and differences in resource allocation (protected time, office and laboratory space, and startup funds) based on gender.^{4–10} All of those are external forces. We were interested in understanding whether internal factors—such as attitudes toward career success and professional recognition—could explain some of the disparities in academic rank between men and women.

METHOD

We created a questionnaire based on one developed at Johns Hopkins Med-

ical School.⁵ The questionnaire included items seeking demographic information, faculty status, track (tenure and non-tenure), self assessment of time for scholarly pursuits, rate of career progress, family responsibilities, availability and quality of mentoring, and understanding of promotion and tenure criteria.

One series of questions asked how faculty valued specific accomplishments as indicators of their success. During our analysis, we grouped these accomplishments as either contributions to the local mission of the school (teaching, patient care, practice management, administration, local committee work), contributions to national recognition (membership on national committees, membership on grant review committees, chairing of conferences), scholarship (publications), or leadership (chair of a national organization, editor of a journal, division director, department chair, or dean). We also asked faculty whose recognition of their work they valued.

In 1996, with the help of the Virginia Commonwealth University (VCU) Survey Research Laboratory, we pretested the questionnaire in a discussion group of eight school of medicine faculty who were selected to represent the whole faculty's mix of age, race, gender, and academic rank. In the spring of 1997, after we had revised the questionnaire to improve its clarity, the VCU Survey Research Laboratory mailed it to all full- and part-time faculty at the VCU School of Medicine and the associated Veterans Affairs Medical Center. The questionnaire was coded to ensure confidentiality, and responses were sent to the Survey Research Laboratory rather than the School of Medicine. A reminder card was sent to all faculty, and a second questionnaire was mailed to non-respondents.

We excluded the 20 administrative faculty from the analysis because they have different roles in teaching, patient care, and research and a disproportionate

number of them are women. Descriptive statistics were used to characterize the respondents by sex. We used two-way analysis of variance, chi-square test, Wilcoxon rank-sum tests, and logistic regression to examine associations between gender and MD degree and questionnaire responses. The logistic regression analysis adjusted for number of years on the medical school faculty.

RESULTS

Of the 918 faculty we contacted, 567 (62%) responded. The respondents were representative of the general faculty by race, gender, academic rank, and part-time status. Overall, 33% of the respondents were women, but women comprised only 22% of the respondents who were over the age of 45 and almost half the respondents (46%) who were 45 years of age or younger. Male and female respondents did not differ significantly in years of residency, postdoctoral, or fellowship training (Table 1). Twenty percent of the female faculty reported that they had part-time positions.

Similar to national statistics, few women at our institution were at the level of professor or had received tenure. Only 5% of the female faculty were professors, versus 39% of the male faculty ($p = .0001$ in analysis limited to full-time faculty and adjusted for years on faculty). Only 13% of those women were tenured, versus 48% of the men ($p = .0002$ using the same analysis). Women in non-tenure-track positions were less likely than similarly situated men to respond that they planned to switch to the tenure track, but this difference was largely due to the responses of women physicians, who were least likely to report that they would switch to the tenure track.

Female physician faculty reported spending more time on clinical activities than did their male counterparts ($p = .006$) (Table 1). Female faculty reported having 40% less time to spend

on scholarly pursuits than did male faculty; female physician faculty reported having the least time. Twice as many women as men reported that their academic progress was slower than that of their peers.

Ninety-five percent of the married or partnered women had partners who worked outside the home, compared with 60% of the married or partnered men. Women were more likely to report (35% versus 18%) that their partner's career considerations had had a major influence on their career development, and they were almost twice as likely (37% versus 16%) to report that they had changed career plans because of their partner.

Women were more likely to respond that they had not been advised about criteria for promotion (Table 1). Similarly, women were almost twice as likely as men to report that they did not understand the promotion and tenure criteria. Similar proportions of men and women reported having mentors, but the women's mentors were more likely to be women (17% versus 3%; $p = .04$) and less likely to be full professors (62% versus 87%, $p = .007$). Women were less likely (33% and 42%) to report that they met weekly with their mentors.

Values Related to Academic Success and Recognition

Faculty rated how they personally valued different accomplishments as signs of their career success. Female and male faculty both valued aspects of their careers that contributed to the local mission of the school of medicine: high-quality patient care (89% of women and 82% of men), a good relationship with patients (80% and 71%), and a good relationship with peers (69% and 56%). However, the female faculty were less likely to value accomplishments such as national visibility ($p = .02$), scholarship ($p = .0002$), and leadership ($p < .0001$) (Figure 1). Differences in the attitudes of men and women about scholarship

Table 1

Characteristics of Women and Men on the Faculty at Medical College of Virginia, Virginia Commonwealth University, Broken Down by MD Degree, 1997							
Characteristic	All Women (n = 173)	Women MDs (n = 96)	Women Non-MDs (n = 77)	All Men (n = 353)	Men MDs (n = 215)	Men Non-MDs (n = 138)	p Value*
Age (mean ± SD)	42 ± 6.8 years	41 ± 6.6 years	43 ± 7.0 years	48 ± 9.5 years	48 ± 9.8 years	48 ± 9.1 years	.0001
Time on faculty (mean ± SD)	7 ± 5 years	7 ± 6 years	7 ± 7 years	12 ± 9 years	12 ± 9 years	13 ± 10 years	.0001
Time in training (mean ± SD)							
Residency		3.7 ± 1.2 years			3.9 ± 1.3 years		.32
Postdoctorate	1.47 ± 2.3 years	0.71 ± 2.2 years	2.18 ± 2.3 years	1.4 ± 1.9 years	0.48 ± 1.24 years	2.49 ± 2.1 years	.76
Fellowship	1.43 ± 1.5 years	1.8 ± 1.4 years	0.58 ± 1.5 years	1.54 ± 1.8 years	1.98 ± 1.6 years	1.55 ± 1.7 years	.87
Rank							
Instructor	8%	6%	10%	2%	0%	5%	
Assistant professor	57%	63%	49%	28%	30%	24%	
Associate professor	24%	24%	23%	26%	31%	18%	
Professor	6%	5%	6%	39%	37%	43%	.0001†
Full-time	80%	83%	78%	93%	92%	97%	
Tenure status							
Tenured	13%	13%	13%	48%	48%	48%	
Tenure eligible	8%	8%	8%	8%	8%	8%	
Collateral track	7%	73%	74%	38%	41%	34%	.0002†
Plan to change to tenure track	22%	9%‡	38%	30%	26%	37%	.08†
Spouse employed	95%	91%	98%	60%	54%	71%	.0001
Changed career plans for spouse	37%	35%	40%	16%	17%	15%	.0001
Percentage of time in clinical care		57%			49%		.006
Time per month in scholarly work (mean ± SD)	34 ± 49 hours	20 ± 32 hours§	57 ± 61 hours	55 ± 62 hours	35 ± 45 hours	88 ± 71 hours	.0001†
Career progress slower	39%	43%	33%	16%	18%	14%	.0001†
Not advised about criteria for promotion and tenure	75%	73%	75%	53%	58%	47%	.001†
Good understanding of promotion and tenure criteria	14%	13%	17%	28%	26%	33%	.0005

*p value for differences in responses between all women and all men.
†Analysis limited to full-time faculty adjusted for age and years on faculty.
‡p = .003 for differences in responses between women MDs and women non-MDs.
§p = .002 for difference in responses between women MDs and women non-MDs.

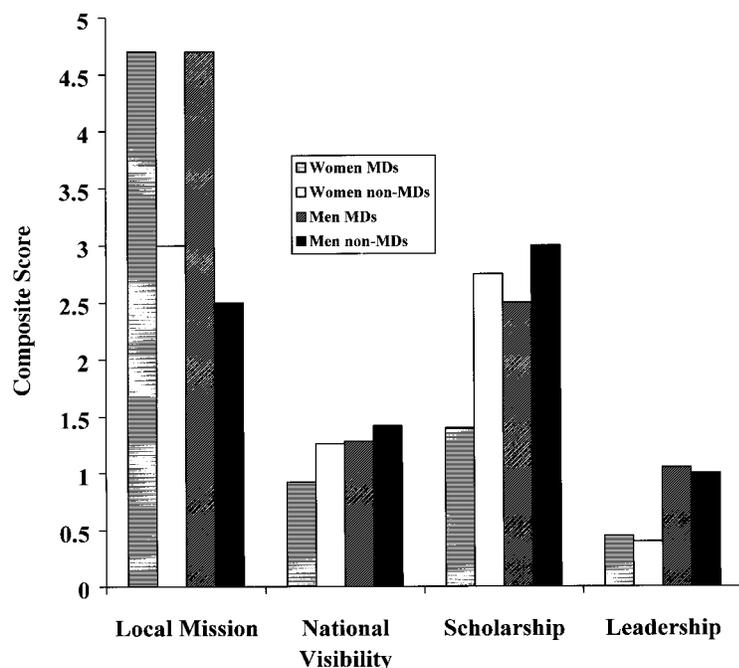


Figure 1. Composite scores indicating the values that female physicians, female non-physicians, male physicians, and male non-physicians placed on accomplishments (grouped as local mission, national visibility, scholarship, and leadership) in reflecting career success. Higher scores indicate more value placed on that accomplishment. (Comparison of responses for male and female faculty: $p = .6$ for local mission, $p = .02$ for national visibility, $p = .0002$ for scholarship, $p < .0001$ for leadership; comparison of responses for physician and non-physician faculty: $p < .0001$ for local mission, $p = .06$ for national visibility, and $p < .0001$ for scholarship, $p = .46$ for leadership.)

and national recognition were largely due to the lower ratings given by the female physicians. However, both physician and non-physician female faculty rated leadership lower than did male faculty.

When asked whose recognition of their work they valued, the female physicians were more likely to mention patients, trainees, and local peers than national peers (Figure 2). Eighty-five percent of the faculty highly valued recognition by promotion, with no significant differences by gender (86% of men and 81% of women). However, the subgroup of female physicians was less likely to rate promotion highly (Figure 3). Physician faculty were less likely than non-physician faculty to value receiving tenure as a measure of their achievement ($p < .0001$), and female physicians were least likely to value it highly. Women who were 45 years old

or younger were more likely to value tenure than were women who were over 45 (55% versus 48%).

DISCUSSION

Our survey confirmed that, despite similar years of training at the start of their academic careers, women and men progress at different rates toward the highest academic ranks. There are several reasons for this. Women are more likely to be in part-time positions, which preclude tenure at our institution and almost half of other academic medical centers.¹¹ Women are more likely to be in clinical positions, which make it more difficult to do research and participate in scholarly activities that result in publication and national recognition.⁶ As has been reported by others, women are also less likely to report that their division or department head had

discussed promotion and tenure criteria at their annual reviews and more likely to report that they did not understand those criteria.⁹

In addition, this survey demonstrated that male and female faculty differ in the attitudes they hold regarding career success and recognition; these differences are most pronounced for female physicians. Both male and female faculty value aspects of their career that contribute to the local mission of the school (teaching, patient care, administration, committee work), but, while male faculty and non-physician female faculty also value scholarship and national recognition, female physician faculty were more likely to value patient care and local recognition. Bennet and Nickerson have also reported differences between female physicians and female basic science faculty in attitudes about obstacles to career development.⁷ A survey of the attitudes of medical students and residents found that women were more interested in patient care and less interested in research than were their male colleagues.¹¹ Kaplan reported similar findings in a study of pediatrics faculty at academic medical centers,⁶ where female faculty had fewer publications than their male counterparts and were less interested in research. Because scholarship and national recognition are necessary for tenure-track appointments and for promotion to full professor at most academic medical centers, these differences in attitudes, although small and not universal, are likely to have an important impact on the promotion of some women to the highest ranks.

This survey also confirmed other recent studies that found that women in general are less likely to value being in leadership positions. Kaplan found that women on the pediatrics faculty were less likely to aspire to positions of leadership such as division head, department chair, and dean.⁶ A survey of physicians in Great Britain revealed that women were less likely than their male

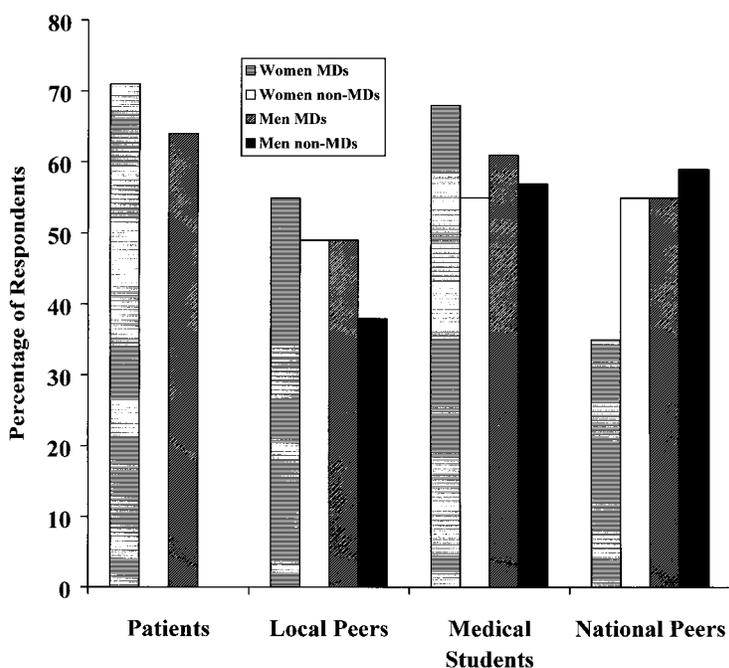


Figure 2. Percentages of faculty responding that they highly valued recognition from specific groups. Only MDs rated recognition from patients. (Comparison of responses for male and female faculty: $p = .12$ for patients, $p = .08$ for local peers, $p = .18$ for medical students, $p = .004$ for national peers; comparison of responses for physician and non-physician faculty: $p = .03$ for local peers, $p = .0006$ for medical students, and $p = .04$ for national peers.)

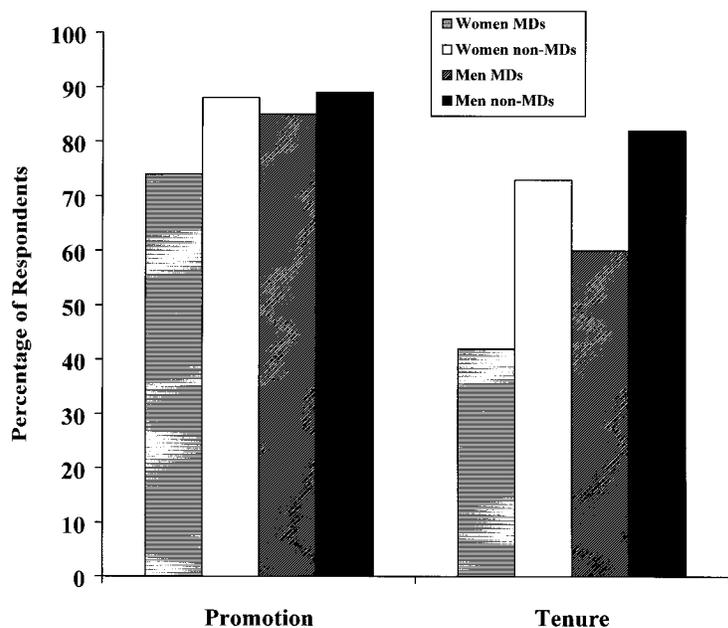


Figure 3. Percentages of faculty reporting promotion and tenure were important recognition of career success. (Comparison of responses for male and female faculty: $p = .2$ for promotion, $p = .04$ for tenure; comparison of responses for physician and non-physician faculty: $p = .03$ for promotion and $p < .0001$ for tenure after adjustment for years on faculty.)

colleagues (13% versus 27%) to rate themselves highly on leadership ability ($p = .01$).¹² The reason for the difference in the attitudes of male and female faculty about leadership is unclear. Women generally have greater family responsibilities, few female role models in positions of leadership, and different leadership styles.¹³ A cross-sectional study of leadership among physicians in Norway found that men were three times as likely as women to be in leadership positions, but the proportion of women leaders increased in specialties with higher proportions (over 25%) of women and in specialties with more regular work hours.¹³ If this is the case, the recent substantial increase in the proportion of female faculty at academic medical centers should eventually lead an increase in the number of women in positions of leadership. The American Association of Medical Colleges (AAMC) has outlined a comprehensive approach to increasing the number of female leaders, including mentoring programs and leadership training.⁷ Many medical schools have made a conscious effort to appoint women to major committees to increase the number of women in leadership positions.² In addition, the characteristics of a good leader should be reexamined. Faculty who lead collaborative or team efforts that bring about important institutional or programmatic changes should be recognized as leaders. More research is needed about attitudes of women about leadership, differences in leadership styles between men and women, and the success of programs that promote leadership training for women.

There are limitations to the results of this survey. First, the survey relied on faculty members assessing themselves, a method that may introduce inaccuracies or biases. Second, although the response rate was good for a physician survey, the attitudes of non-respondents might have differed. Third, the survey was conducted at only one academic in-

stitution and its associated Veterans Affairs Medical Center; the results may not be generalizable to other institutions. Fourth, although we found differences in the values related to career success and recognition between male and female faculty, these differences may not be causally related to differences in academic progress, but rather a secondary effect. Faculty who consider themselves less likely to achieve certain measures of career success may rate those achievements as less important.

Nonetheless, this survey demonstrates that women on medical school faculties face important obstacles to their career development and promotion that appear to be particularly important for female physicians. To increase the proportion of female professors, academic medical centers should continue to support leadership training for interested women through local and national programs and recognize that male and female faculty may have different leadership styles. Resources and protected time for career development should be available for women and should not be limited to new faculty, since some women may come to research careers later due to family responsibilities. In addition, the American College of Physicians has emphasized the importance of mentoring programs and the dissemination of tenure and promotion guidelines.

In addition, academic medical cen-

ters should examine whether current promotion and tenure criteria, which were developed when faculty were almost exclusively male, adequately recognize the outstanding contributions of women faculty. Research suggests that there are important differences in the values and contributions of men and women.¹⁴⁻¹⁷ Unless tenure and promotion criteria and reward structures recognize the outstanding contributions of faculty to the local mission of the academic medical center (teaching, administration, and clinical programs) as well as national contributions and scholarly activity, it is likely that there will continue to be an imbalance in the proportion of female faculty, and especially of female physicians, who reach the highest ranks and assume leadership roles.

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