



## Original Research

# Career satisfaction of leaders in academic dermatology: Results from a national survey, <sup>☆</sup>



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## ABSTRACT

**Background:** A positive correlation between leadership roles and job satisfaction has been noted in some areas of business. Since senior leaders in academic dermatology appear to be more satisfied than their junior colleagues, a similar relationship may be important in dermatology.

**Objective:** To determine if there is an association between leadership roles and career satisfaction of academic dermatologists.

**Methods:** A cross-sectional, anonymous survey was mailed to 1263 academic dermatologists across the US. Participants were questioned on demographics and career satisfaction. Academic rank and position was compared with career satisfaction.

**Results:** The leadership cohort was comprised of 140 (77%) men and 41 (23%) women ( $p < 0.01$ ). Leaders were significantly more satisfied in their careers than non-leaders (65% versus 36%,  $p < 0.01$ ), and were also less likely to leave academia. Factors related to career satisfaction included satisfaction with the promotion process ( $p < 0.01$ ), presence of career development programs ( $p < 0.02$ ), physician health ( $p < 0.01$ ), and the ability to achieve balance in one's personal and professional lives ( $p = 0.01$ ). Our analysis also demonstrated a gender gap within the leadership sector, with female leaders reporting less satisfaction overall with their career (44% versus 71%,  $p < 0.01$ ), with the tenure/promotion process at their institutions (89% vs. 68%, respectively,  $p < 0.01$ ), as well as their personal and professional balance (49% vs. 80%,  $p < 0.01$ ) compared to their male leaders counterparts respectively. However, there was no difference in the likelihood of leaving academia between male and female leaders.

**Conclusion:** Academic leaders overall had higher career satisfaction than non-leaders, and were more likely to stay within academia. Despite this, patterns of gender disparities in the academic dermatology leadership persist with males outnumbering females in the leadership pool, and male leaders reporting higher levels of satisfaction compared to their female counterparts, as well as perceiving fewer challenges in finding balance between their personal and professional lives.

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## Introduction

Our understanding of the contributors to career satisfaction in academic dermatology is continuing to evolve. While prior studies have implicated frustration with bureaucracy, the promotion process, work-life balance, and salary differential as reasons for attrition in academia, the extent to and timing with which these

frustrations affect different faculty cohorts and lead to actual attrition is not well-established (Ash et al., 2004; Bergstresser, 1991; McMurray et al., 2000; Nonnemaker, 2000). We reported previously that overall career satisfaction in academic dermatology is high across genders (Sadeghpour et al., 2012). However, we also confirmed prior reports by demonstrating that women held fewer senior and leadership positions than their male counterparts, were less satisfied, and more likely to leave academia. This observation highlights a potential association between seniority and career satisfaction. Understanding determinants of career satisfaction is not only associated with likelihood of attrition and physician shortage (Sadeghpour

<sup>☆</sup> No human subjects were included in this study. No animals were used in this study.

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et al., 2012; Jackson et al., 2018), but it has been strongly correlated with overall physician health (Sundquist and Johansson, 2000) as well as patient satisfaction (Haas et al., 2000). The purpose of this study is to investigate this association by comparing career satisfaction of academic leaders with that of their non-leader counterparts.

## Methods

As previously described (Sadeghpour et al., 2012), a cross-sectional, anonymous survey was approved by the University of Texas Southwestern Medical Center Institutional Review Board and mailed to 1263 academic dermatologists (individuals holding an MD or DO degree whose salary and benefits came, in large measure from an academic institution) across the United States in January 2009. A preliminary list of academic dermatologists was provided by the American Academy of Dermatology, which was then cross-referenced with academic dermatology websites to ensure an up-to-date list of academic dermatologists. Those included in the survey were academic dermatologists holding an MD or DO and whose salary and benefits came, in large part from an academic institution.

A 41-question survey was designed, which included questions relating to demographic characteristics, current academic appointment, training background, current academic track, tenure status, and future career aspirations. The survey also evaluated career satisfaction as it related to the tenure and promotion process, perceived departmental support, ability to achieve work/life balance, and overall satisfaction determining likelihood to stay vs. leave academia. Health questions focused on stress, fatigue, depression and overall happiness.

All surveys were anonymously coded and entered into a spreadsheet (Excel 2007; Microsoft). An academic leader was defined as a person with a current academic appointment of Full Professor; Assistant, Associate or Vice Chair; Department Chair; Dean; Associate Dean; Assistant Dean; Director of Center; Program Director or Section Area Head. Analysis was performed using chi square analysis of association to determine sex and leadership differences in categorical variables. In the survey, questions regarding age were categorized. For the purpose of statistical analysis, the value assigned to the category was the midpoint. T tests were used for age comparisons. Multi-linear regression analyses using satisfaction as the dependent variable and isolating for leadership status

were used to evaluate differences in age, career development, promotion, life balance, and compensation (Excel 2007; Microsoft Inc, Redmond, Washington).  $P < 0.05$  was considered statistically significant.

## Results

### Demographics

Of the 1263 surveys sent, 341 were returned (26.9%). Of the respondents, 204 (59.8%) were men, and 137 (40.2%) were women. Of the responses received, 181 (53%) were identified as academic leaders and 160 (47%) were non-leaders. The leadership pool was comprised of 140 (77%) men and 41 (23%) women ( $p < 0.01$ ). Leaders were significantly older than their non-leader counterparts (median age 50–65 years vs. 35–40 years, respectively,  $p < 0.01$ ) (Table 1). However, there was no significant difference between the ages of male and female leaders ( $p = 0.12$ ) (Table 2). There was also no significant difference in marital status of leaders vs. non-leaders (Table 1), or male leaders vs. female leaders (Table 2).

**Table 2**  
Demographic Comparison of Female Leaders vs. Male Leaders.

	Female Leaders (n = 41)	Male Leaders (n = 140)	P value <sup>a</sup>
Respondents, No. (%)	41/181 (23)	140/181 (77)	<0.01
Age, median, y	50–65	50–65	0.12
Rank			
Instructor	1/41 (2.4)	0/130 (0)	0.24
Assistant Professor	11/41 (26.8)	14/130 (10.7)	0.02
Associate Professor	7/41 (17)	16/130 (12.3)	0.44
Full Professor	21/41 (51.2)	96/130 (73.8)	0.01
Other	1/41 (2.4)	4/130 (3.0)	1
Marital status			
Married	31/39 (79.5)	117/135 (86.6)	0.31
Single	3/39 (7.7)	11/135 (8.1)	1
Other	5/39 (12.8)	7/135 (5.2)	0.14
Academic track offered at institution, n (%)			
Clinical scholar/investigator	19/38 (50)	75/128 (58.6)	0.36
Clinician educator	33/38 (86.9)	110/128 (85.9)	1
Basic/translational research	28/38 (73.7)	81/128 (63.3)	0.25
Other	5/38 (13.2)	18/128 (14.1)	1

<sup>a</sup> P values reported for  $\chi^2$  test.

**Table 1**  
Demographic Comparison of Leaders vs. Non-leaders.

	Leader (n = 181)	Non-leader (n = 160)	P value <sup>a</sup>
Respondents, No. (%)	181/341 (53)	160/341 (47)	0.12
Age, median, y	50–65	35–40	<0.01
Rank			
Instructor	1/179 (<1)	13/158 (8.2)	<0.001
Assistant Professor	26/179 (14.5)	84/158 (53.1)	<0.001
Associate Professor	26/179 (14.5)	51/158 (32.2)	<0.001
Full Professor	121/179 (67.5)	(0)	<0.001
Other	5/179 (3.0)	10/158 (6.3)	0.18
Marital status			
Married	151/175 (86.3)	133/159 (83.6)	0.54
Single	14/175 (8.0)	15/159 (9.4)	0.69
Other	10/175 (5.7)	11/159 (6.9)	0.66
Academic track offered at institution, n (%)			
Clinical scholar/investigator	94/166 (56.6)	79/146 (54.1)	0.73
Clinician educator	143/166 (86.1)	127/146 (87)	0.87
Basic/translational research	109/166 (65.7)	86/146 (58.9)	0.24
Other	23/166 (13.9)	115/146 (78.8)	<0.01

<sup>a</sup> P values reported for  $\chi^2$  test.

**Table 3**  
Career Satisfaction of Leaders in Academic Dermatology.

	Leaders (n = 177)	Non-leaders (n = 159)	P <sup>a</sup>
Satisfaction overall with career in academia, n (%)			
Overall very satisfied with academic career	115/177 (65)	57/159 (35.8)	<0.01
Somewhat satisfied	46/177 (26)	77/159 (48.4)	<0.01
Somewhat dissatisfied	10/177 (5.6)	18/159 (11.3)	0.08
Very dissatisfied	6/177 (3.4)	7/159 (4.4)	0.78
Satisfaction with departmental support and promotional process n (%)			
Satisfied with tenure/promotional process	116/139 (83.5)	65/109 (59.6)	<0.01
Felt supported in his/her advancement to tenure/promotion	105/135 (77.8)	81/117 (69.2%)	0.15
Future of career in academia, n (%)			
No desire to depart academia	64/175 (36.6)	33/158 (20.9)	<0.01
Considering retirement in ≤ 5 yrs	34/175 (19.4)	11/158 (7)	<0.01
Have considered options to leave academia but happy in academia at present	63/175 (36)	82/158 (51.9)	<0.01
Seriously considering leaving academia	12/175 (6.9)	25/158 (15.8)	0.01
Definitive arrangements to leave academia	2/175 (1.1)	7/158 (4.4)	0.09
Personal and professional life balance, n (%)			
Satisfied with personal and professional life balance	150/175 (85.7)	116/160 (72.5)	<0.01
Felt supported by department chair/chief regarding family/career balance	135/166 (81.3)	133/158 (84.1)	0.56
Have seriously considered leaving academia to achieve better personal/professional life balance	53/174 (30.5)	83/159 (52.2)	<0.01
Overall health: frequent report of:			
Happiness	141/179 (79)	126/156 (81)	0.68
Stress	57/177 (32)	68/160 (43)	0.56
Depression	5/178 (3)	8/159 (5)	0.40
Fatigue	62/178 (35)	75/159 (43)	0.03

<sup>a</sup> P values reported for  $\chi^2$  test.

**Table 4**  
Career Satisfaction of Male and Female Academic Leaders.

	Male Leaders (n = 140)	Female Leaders (n = 41)	P Value <sup>a</sup>
Satisfaction overall with career in academia, n (%)			
Overall very satisfied with academic career	97/136 (71.3)	18/41 (43.9)	<0.01
Somewhat satisfied	29/136 (21.3)	17/41 (41.4)	0.01
Somewhat dissatisfied	6/136 (4.4)	4/41 (9.7)	0.24
Very dissatisfied	4/136 (2.9)	2/41 (4.9)	0.62
Satisfaction with departmental support and promotional process n (%)			
Satisfied with tenure/promotional process	90/101 (89.1)	26/38 (68.4)	<0.01
Felt supported in his/her advancement to tenure/promotion	80/97 (82.5)	25/38 (65.8)	0.04
Future of career in academia, n (%)			
No desire to depart academia	52/135 (38.5)	12/40 (30)	0.36
Considering retirement in ≤ 5 yrs	30/135 (22.2)	4/40 (10)	0.11
Have considered options to leave academia but happy in academia at present	44/135 (32.6)	19/40 (47.5)	0.09
Seriously considering leaving academia	8/135 (5.9)	4/40 (10)	0.47
Definitive arrangements to leave academia	1/135 (0.7)	1/40 (2.5)	0.41
Personal and professional life balance, n (%) <sup>a</sup>			
Satisfied with personal and professional life balance	121/137 (88.3)	26/38 (68.4)	<0.01
Departmental chair/chief supports family/career balance of faculty	102/127 (80.3)	19/39 (48.7)	<0.01
Have seriously considered leaving academia to achieve better personal/professional life balance	34/137 (24.8)	33/38 (86.8)	<0.01
Overall health: frequent report of:			
Happiness	112/138 (81)	29/39 (74)	0.37
Stress	39/138 (28)	18/39 (46)	0.05
Depression	4/138 (3)	1/39 (3)	1.0
Fatigue	41/138 (30)	21/41 (53)	<0.01

<sup>a</sup> P values reported for  $\chi^2$  test.

### Career satisfaction

Overall, leaders were significantly more satisfied with their careers than non-leaders, with 65% reporting being 'very satisfied' compared to 36%, respectively ( $p < 0.01$ ). Leaders were also significantly less likely than their non-leader cohort to consider leaving academia (Table 3).

### Predictors of career satisfaction

Multi-linear regression analysis demonstrated that career satisfaction of both leaders and non-leaders correlated significantly with satisfaction with the promotion process ( $p < 0.01$  and

$p = 0.03$ , respectively), presence of career development programs ( $p < 0.02$  and  $p < 0.01$ , respectively), ability to achieve personal/professional life balance ( $p = 0.01$  and  $p < 0.01$ ), and the academician's overall health ( $p < 0.01$ , and  $p < 0.01$ ). Salary did not significantly correlate with career satisfaction in either the leader or non-leader group ( $p = 0.45$ ,  $p = 0.13$  respectively). Whereas age did not correlate with career satisfaction in the non-leader group, there was a significant correlation in the leader group ( $p = 0.83$  and  $p < 0.01$  respectively). There was no significant difference in subjective reports of happiness, stress, depression, or overall health between male and female leaders (Table 4). Non-leaders, however, were significantly more likely to report fatigue than their leader counterparts (35% versus 43%,  $p = 0.03$ ).

### Satisfaction across genders

Overall, male leaders were noted to be significantly more satisfied with their academic careers than female leaders (71% versus 44%,  $p < 0.01$ ) (Table 4). Compared to their male leader counterparts, female leaders were less satisfied with the tenure/promotion process at their institutions (89% vs. 68%, respectively,  $p < 0.01$ ) and were less likely to feel supported in their advancement to tenure (66% vs. 83%, respectively,  $p = 0.04$ ). Female leaders were also significantly less satisfied with their personal and professional balance with 49% reporting that their departmental chair/chief supported family/career balance of faculty compared to 80% of male leaders ( $p < 0.1$ ). However, despite the fact that female leaders were significantly more likely to have seriously considered leaving academia to achieve better personal/professional life balance (87% vs. 25%, respectively,  $p < 0.01$ ), there was no statistically significant gender gap in the likelihood of leaving academia amongst leaders as reported by either the serious desire to leave ( $p = 0.47$ ), or having definitive arrangements to leave academia ( $p = 0.41$ ).

Finally, there was no significant difference in subjective reports of happiness, stress, or depression between male and female leaders (Table 4). Female leaders, however, were significantly more likely to report fatigue than their male counterparts (53% versus 30%,  $p < 0.01$ ).

### Discussion

There is a paucity of data on the association between academic rank and job satisfaction; to our knowledge, this is the first study to examine the relationship in academic dermatology. Our study confirmed prior trends reported in the literature across medicine (Burden et al., 2015; Carr et al., 2018; Han et al., 2017; Kuhlmann et al., 2017; Mayer et al., 2017; Monroe et al., 2015; Shi et al., 2017) that men continue to outnumber women in the academic dermatology leadership pool. Unique to this study is the finding that academic leaders are significantly more satisfied with and less likely to leave their academic positions than their junior counterparts. This finding corroborates prior studies investigating career satisfaction in other fields (Aronson et al., 2005; Field et al., 2011; Holden and Black, 2000; Near et al., 1978; Pololi et al., 2013). There are multiple possible explanations for our findings. Prior studies have demonstrated that academic rank is associated with improved perception of self-efficacy as well as the sense of influence in the academic community, two factors both directly linked to career satisfaction (Pololi et al., 2012, 2013). Academic leaders also have increased teaching and mentoring responsibilities, activities which are also associated with high degrees of job satisfaction. (Buckley et al., 2000).

Additionally we found that academic leaders were not only more satisfied with their jobs, but they also reported greater ease balancing personal and professional responsibilities. This may be related to the increased academic freedom afforded to more senior faculty, who are often no longer as focused on advancement and promotion as their junior colleagues (Field et al., 2011), or the possibility that they have progressed past key child bearing or raising time periods. However, another possible explanation for our findings is that those who are satisfied with their academic careers and have an easier time balancing family and career remain in academia long enough to assume leadership roles due to seniority, while those who are less satisfied leave.

With respect to gender, we found no gap in likelihood of attrition between male and females in the leadership sector. This was in contrast to our prior report where female academicians were overall more likely to leave than their male counterparts (Sadeghpour et al., 2012). This is perhaps a reflection of the overall

higher satisfaction of senior leaders, who have already surpassed the promotional challenges that push junior dermatologists out of academia in earlier stages of their career. However, similar to our prior report, we found significant gender gaps persisting in the leadership sector. These results are supported by Pololi et al., who looked at comparative experiences of 4578 full time faculty across 26 medical schools (Pololi et al., 2013). The authors reported that while both genders shared similar leadership aspirations and enthusiasm about their work, women faculty had a more negative perception of their work place culture than their male counterparts. This included greater obstacles to career advancement, lower feelings of confidence/self-efficacy, relatedness to the academic community, and less institutional support to combine work and personal life. Our findings point to similar patterns of gender disparities in the leaders of academic dermatology: male leaders were not only more satisfied than their female counterparts, but they also perceived fewer challenges in finding balance between their personal and professional lives. Furthermore, women reported decreased support and satisfaction with the promotional process, felt less supported by their department chair/chief in achieving family/career balance, and were significantly more likely to report fatigue compared to men. Previous analysis of our data showed noted no significant difference in the timing of promotion of women and men to positions of higher rank. This indicates that women's dissatisfaction with promotion processes is likely independent of timing, and more related to their perception of institutional culture, support, and collegiality. This threat of marginalization can be addressed by creating a positive and supportive work environment where flexible scheduling and greater autonomy to prioritize work and family responsibilities can be a reality (Kimball, 2012).

This study has several limitations. The greatest limitation was our 27% response rate. While our demographic data suggests that our cohort was representative of our overall target group, the response rate is still low. Furthermore, the anonymous nature of the survey prevented us from contacting nonresponders. Additionally, responses were based on self-report with no available mean for validation, creating the possibility of sex-based differences in self-reporting. Lastly, this data set was collected in 2009, and thus our data set while still relatively current, may be slightly dated. Despite this, evidence on major trends in the last 10 years has shown that gaps in gender achievement of leadership positions has remained relatively unchanged with men continuing to outnumber women in leadership positions across medicine (Burden et al., 2015; Carr et al., 2018; Han et al., 2017; Kuhlmann et al., 2017; Mayer et al., 2017; Monroe et al., 2015; Shi et al., 2017), while gender disparities in publication are improving and in some cases closing (Sadeghpour et al., 2012; McDermott et al., 2018; Salinaro et al., 2018).

### Conclusion

We found that despite men outnumbering women in the leadership pool, academic leaders in dermatology are overall more satisfied in their current careers than their non-leader counterparts, and are more likely to stay within academia. While these findings were consistent across both genders, the differences were more profound for males than females. Understanding that academic leaders have higher career satisfaction is important in evaluation of work place satisfaction within academic dermatology and critical to preventing attrition as well as fostering vibrant productive faculty members and programs. Our findings highlight the imperative need to increase leadership training and opportunities for women given that data both recently and throughout the last decade have shown that men continue to outnumber women in lead-

ership positions across all of academic medicine. Academic leaders will undoubtedly face new challenges as the nation continues to face medical reform in the years to come. Potential recommendations that emerge from these findings are that developing early leadership opportunities for junior faculty members may not only make them more satisfied, but to help to prepare them for future roles.

Potential avenues for leadership training include The Leadership Institute through The American Academy of Dermatology, which provides leadership training as well as mentorship opportunities by stand alone programs, as well as sessions at the Annual and Summer Academy meetings. These include weekend-long programs such as the Leadership Forum, year-long programs including The Academic Dermatology Leadership Program, as well as the AAD Mentorship Program. Additional opportunities are also available through the Leadership Development courses offered by the Association of American Medical College, including those that focus on leadership training of women faculty. The training of future leaders in dermatology, across genders, can not only contribute to increasing career satisfaction, but also to enhance retention.

### Conflicts of interest

Authors have no conflict of interest.

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### Study Approval

NA.

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