

Work Environment Perceptions of Full Time Dental Educators –
Does Gender Matter?*

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ABSTRACT

Purpose: This study investigates whether female and male full time dental faculty members in US dental schools differ in their workplace experiences and perceptions.

Procedure: A questionnaire was mailed to the 2,203 US members of the American Dental Education Association (ADEA) in May 2001. 870 faculty members responded (response rate: 40%). The data of the 738 full time employed faculty members female:

257 / 34.8%; male: 481 / 65.1%) were analyzed. **Main Findings:** The results showed that male and female faculty did not differ significantly in the average hours per week worked (men: 46.1 vs. women: 47.1), in the amount of time spent on research (11.67% vs. 12.76%), and in available grant support (20.1% vs. 19.7%). Men were more likely than women to have office space (99.2% vs. 96.5%; $p=.012$), secretarial support (87.0% vs. 75.8%; $p=.000$), protected time for research (37.8% vs. 31.6%; $p=.056$), and lab space (23.2% vs. 10.6%; $p=.000$). Compared to men, women spent more time on teaching (men: 16.84% vs. women: 19.00%; $p=.078$), and perceived the work environment as less supportive (30% vs. 9.3%; $p=.000$). While 73.8% of men felt welcome as members of the dental school community, only 50.2% of the women felt welcome ($p=.000$). Male and female respondents differed significantly in the degree of experienced and perceived harassment. **Conclusion:** Female and male faculty members differed in their experiences and perceptions of the academic climate at USA dental schools. These results may ultimately be useful when exploring effective recruitment and retention strategies for dental faculty members.

Key words: Gender, dental educators, faculty members, recruitment, retention, harassment, stress, job satisfaction, quality of life

BACKGROUND

The American Association of Dental Schools (now the American Dental Education Association - ADEA) published a report in 1999 describing an impending shortage of faculty members for US dental schools¹. Two follow up surveys with dental school deans illustrated this problem even further²⁻³. The purpose of this study is to investigate whether female and male full time dental faculty members in US dental schools differ in their workplace experiences and perceptions. The ultimate goal is to provide background information concerning gender specific recruitment and retention considerations.

Prior research concerning gender specific workplace experiences and perceptions of full-time dental faculty members in the United States is lacking. However, numerous studies in other academic fields have highlighted the problem of gender specific experiences and concerns of faculty members in academic settings in the US.⁴

¹⁴ In 1991, a study by Parson et al.⁴ showed that the professional climate at public, research oriented universities in the USA was “chilly” for female faculty members. Women perceived themselves as outsiders, excluded from the “old boys network“, and felt undervalued in a male dominated system. This situation was also documented by Riger et al.⁵ in 1997 when they studied faculty members’ perceptions of the work environment in institutions of higher education. The results of this survey indicated again that women perceived their environment as “chillier” than men did. Gender specific differences were also found in academic administrative leadership positions⁶.

Gender differences in workplace experiences in medical school and health care settings have been documented as well⁷⁻¹⁴. In 1996, Fried and colleagues⁷ measured faculty perceptions of gender-based career obstacles in medicine, and reported that significantly more women than men perceived a wide variety of gender-based career impediments. In 2000, Carr et al.⁸ reported the results of an extensive survey of faculty members from randomly selected US medical schools concerning the prevalence of gender-based discrimination and sexual harassment among medical school faculty. These authors also explored the relationship between gender-based discrimination and the number of publications, career satisfaction, and perceptions of career advancement of men and women. The results showed that female faculty members perceived gender-based discrimination in the medical school environment 2.5 times more often than their male colleagues. Foster et al.⁹ investigated faculty perceptions of the climate in US medical schools in the year 2000. Female and male faculty differed significantly in their perceptions of the professional environment. Female faculty members reported that their gender created specific and serious obstacles to their professional development.

In summary, prior research in US academic settings⁴⁻⁶ and medical school settings⁷⁻¹⁴ during the past 15 years has documented significant differences in male and female respondents' workplace experiences and perceptions of their work environment.

The purpose of this present study was to explore whether these findings can be replicated in US dental school environments. The objective was to investigate whether,

and if so how, female and male full-time faculty members in US dental schools differed in their professional experiences and in their perceptions of the workplace. These findings will be beneficial to develop recommendations for the future recruitment and retention of female and male dental faculty. They could guide the identification and implementation of recommended changes in the dental school work place environment, initiate a continuous monitoring process of the climate for full-time female and male faculty, and further the notion of cultural competency in dental education.

MATERIALS AND METHODS

This study had IRB approval.

Respondents: The sample consisted of dental faculty members who were identified with the help of the 2001 membership roster of the American Dental Education Association (ADEA). A questionnaire was mailed to the 2203 ADEA members in US dental schools in May 2001. No follow up mailing was conducted. 870 faculty members responded (response rate: 40%); 34.8 % of these respondents were women and 65.1% were men. 17.9% of the female respondents were dental hygienists. A comparison of the percentages of female and male respondents with the percentages of female and US dental faculty in the year 2000 showed that a slightly larger proportion of women than men had responded to this survey (US: 24.5% female faculty vs. 34.8% female respondents in this study)¹⁵. Given the wide range of specific arrangements made for part time employed dental faculty and resulting concerns, this study considers only data

from full time employed respondents (N=738). All surveys were returned within a six-week time frame. In order to maintain confidentiality, the respondents were not asked to self identify or to name the institution they were employed by. All data were reported on an aggregate level, and only the researchers involved in this study and the ADEA professional staff had access to the surveys.

Survey: The “Full-time Dental Educator Work Environment” survey used in this study was developed by the authors based on a review of the literature in the areas of perceptions of academic work environment and career development⁴⁻¹³. The survey was designed to gather quantitative and qualitative information of academic characteristics, experiences, and work place perceptions of male and female dental faculty in the United States. Survey items obtained from the literature were complemented with additional items that were formulated by the primary author based on conversations with other female dental faculty members about issues that were important to these women faculty. The survey was pre-tested with five male and five female faculty members for clarity and brevity. The final version of this self-administered mailed survey contained 75 questions in the following subsections: Demographic Background (5 questions), Education and Professional Activity (12 questions), Mentoring Relationships (8 questions), Work Place Environment (32 questions), and Career Success and Recognition (18 questions).

Answers to the closed ended items were provided on 5 point rating scales ranging from 1 (very dissatisfied / strongly disagree) to 5 (very satisfied / strongly

agree). Intermediate points 2, 3 and 4 did not have verbal designations. A response of 4 or 5 was reported as an agreement / positive response to a given item. Open ended questions were concerned with faculty recruitment, faculty retention, reasons for under-representation of female faculty in US dental schools, and career impediments.

Statistical Tests Used: Chi square tests were used to analyze whether the frequencies of responses of male and female respondents to the questions differed.

RESULTS

Demographic and Professional Background Characteristics

The overall response rate for full-time, part-time, and administrative faculty was 40% with 870 respondents of the 2203 contacted ADEA members returning their surveys within a six-week period. Of these respondents, 34.8% were women, and 65.1% were men. The number of full-time employed respondents was 749 members (86.1% of respondents). Eighty-six faculty members worked part-time (9.9%), and 35 faculty members (4%) did not indicate their work status. Within the 749 full-time respondents, 738 members (98.5%) held a faculty position, while seven respondents did not hold a formal faculty position, and four respondents did not indicate their position. The following analyses are based on the responses of the 738 full time employed faculty members. Of these respondents, 257 were female (34.8%), and 481 were male (65.1%).

Academic Rank

The female respondents were on average approximately seven years younger than the male respondents (mean age: female respondents: 45.99 vs. male respondents: 53.37 years; $p=.000$). Given this age difference, it is not surprising that female respondents had been in academic dentistry for approximately four years less than their male peers (average years of full-time employment: female respondents: 13.00 vs. male respondents: 17.01 years; $p=.000$). The percentages of women and men at different levels of employment may be partially due to this age difference. The data showed that the percentage of female respondents who were full professors was relatively smaller than the percentage of male respondents who held full professor positions (women: $N=39$; 15.2%; men: $N=208$; 43.2%). However, compared to men, the percentages of associate professors (men: 39.1% vs. women: 47.1%), assistant professors (men: 16.4% vs. women: 33.9%), and instructors (men: 1.2% vs. women: 3.9%) were higher among the female respondents.

Women and men did not differ significantly in whether they had a tenure track appointment (women: 65.2 vs. men: 71.4%; chi square=3.69; d.f.=2; $p=.16$). The female faculty members had spent significantly less time in their present academic rank than male faculty (women: 6.06 years vs. men: 8.82 years; $p=.000$).

Ethnicity / Race

Overall, 608 respondents (82.3%) were white, 42 (5.7%) Hispanic/Latino, 33 (4.5%) black, and 21 (2.8%) Asian/Pacific Islander/East Indian. Only 4 respondents (.5%) indicated that they were American Indian or Alaskan Natives. No gender differences were found for ethnicity / race (chi square = 4.40; d.f.=4; p=.354).

Family Background

Compared to men, women were significantly less likely to be married or to have a partner (men: 90.0% vs. women: 69.3%; chi square=50.09; d.f.=1; p=.000). While 86.7% of the male faculty members with a spouse / partner reported that their income was higher than their spouse's income, only 40.1% of the female faculty members indicated that this was the case (p=.000). While 43.0% of the women faculty had no children, only 12.1% of the men reported not having a child. Of those respondents who had children, men had on average 2.10 children, while women had only 1.14 children (p=.000).

Educational Background

Male respondents were more likely to have a DDS / DMD than female respondents (men: 90.5% vs. women: 63.8%; p=.000). Women were more likely to have a dental hygiene degree (Men: .2% vs. women:17.9%; p<.000). Men and women did not differ significantly as to whether they held an MS degree in dentistry (20.2% vs. 17.2%), or an MD degree (3.5% vs. 2.7%). However, male respondents were significantly more likely to have received a certificate for attaining specialty graduate training than female

respondents (35.3% vs. 28.3%; $p=.034$), and significantly less likely than women to have a master's degree outside of dentistry (23.8% vs. 32.3%; $p=.009$). Thirty-nine women (5.27%) had a Ph.D. as compared to 89 men (12.02%).

Discipline

Men and women faculty differed significantly in their primary discipline named ($p=.000$). Men reported more frequently than women that their primary discipline was general dentistry (29.9% vs. 25.9%), endodontics (6.4% vs. 1.6%), oral surgery (5.9% vs. 1.2%), orthodontics (4.7% vs. 3.6%), periodontics (8.3% vs. 5.6%), and prosthodontics (13.1% vs. 8.8%). Compared to men, more women reported that their primary discipline was dental hygiene (.2% vs. 17.9%), pediatric dentistry (7.4% vs. 8.4%), dental public health (4.7% vs. 6.0%), radiology (2.1% vs. 2.4%), or behavioral sciences (.8% vs. 1.6%).

Workplace Experiences and Perceptions

Time Allocation

As can be seen in Table 1, women and men did not differ significantly in the average number of hours worked per week, nor in the percentage of time spent on research, clinical teaching, committee work, administrative duties, and other employment. There was a trend that women spent a higher percentage of their time on didactic teaching than men (16.84% vs. 19.00%; $p=.078$). Compared to men, women

spent significantly more hours per week on dependent childcare (men: 0.82 vs. women: 4.49; $p=.000$), and household chores (men: 3.21 vs. women: 5.16; $p=.02$).

Table 1: Female and Male Respondents' Time Allocations

	Women	Men	p
# of hours per week worked	47.1	46.1	n.s.
# of hours per week spent on dependent childcare	4.49	0.82	$p=.000$
# of hours per week spent on household chores	5.16	3.21	$p=.02$
% time spent on - research	11.67%	12.76%	n.s.
% time spent on - didactic teaching	19.00%	16.84%	$p=.078$
% time spent on - clinical teaching	26.27%	27.47%	n.s.
% time spent on - committee work	9.19%	8.35%	n.s.
% time spent on - administrative duties	21.08%	23.00%	n.s.
% time spent on - other employment	3.05%	2.49%	n.s.

Academic Resources

As can be seen in Table 2, a lower percentage of female faculty compared to male faculty had certain resources such as office space (men: 99.2% vs. women: 96.5%; $p=.012$), secretarial support (87.0% vs. 75.8%; $p=.000$), protected time for research (37.8% vs. 31.6%; $p=.056$), and lab space (23.2% vs. 10.6%; $p=.000$). Despite these differences in academic resources, men and women did not differ significantly in the degree to which they had grant support available to them (20.1% vs. 19.7%).

Table 2: Percentages of Female and Male Respondents with Certain Academic Resources

Availability of academic resources:	Women (n=257)	Men (n=481)	p
Office space	96.5%	99.2%	p=.012
Secretarial support	75.8%	87.0%	p=.000
Protected time for research	31.6%	37.8%	p=.056
Lab space	10.6%	23.2%	p=.000
Grant support	19.7%	20.1%	n.s.

Career Related Activities

Female respondents had significantly fewer publications overall than male respondents (men: 33.5 vs. women: 16.6; p=.000). However, male respondents under 35 years of age did not differ significantly in their number of publications from female respondents in the same age range (men: 5.73 vs. women: 4.94; n.s.).

Academic Climate: Professional Environment

As can be seen in Table 3, most male respondents felt like welcomed members of their dental school community, while only half of the female faculty members felt welcomed. More male respondents agreed with the items that indicate gender equality – such as “Faculty members are comfortable raising issues about the treatment of women.”, “Equal pay for male and female faculty is no longer an issue.”, and “Most faculty would be as comfortable with a female chairperson as a male chairperson.”. More female respondents agreed with the statements that indicate gender inequality -

such as “The work climate in my department and/or division is less supportive of female than of male faculty.”, “Male faculty are more likely to be sought for collaborative research, given comparable scientific expertise.”, “I have observed situations in which a faculty member has been denigrated based on gender.”, and “Male faculty have difficulty taking careers of female faculty seriously and accepting females as colleagues.”

Table 3: Faculty Perceptions of the Dental School Environment

Percentage of Respondents Who Agree With Statement*:			
Perception	Women (n=257)	Men (n=481)	p
I feel like a welcomed member of my dental school scientific community.	50.2% (n=128)	73.8% (n=352)	.000
The work climate in my department and/or division is less supportive of female than of male faculty.	30.0% (n=77)	9.3% (n=44)	.000
Male faculty are more likely to be sought for collaborative research, given comparable scientific expertise.	45.1% (n=114)	8.4% (n=39)	.000
I have observed situations in which a faculty member has been denigrated based on gender.	41.3% (n=105)	16.6% (n=78)	.000
Male faculty have difficulty taking careers of female faculty seriously & accepting females as colleagues.	45.9% (n=117)	9.7% (n=46)	.000
Faculty members are comfortable raising issues about the treatment of women.	28.9% (n=73)	45.6% (n=213)	.000
Most faculty would be as comfortable with a female chairperson as a male chairperson.	31.3% (n=80)	58.7% (n=276)	.000
Equal pay for male and female faculty is no longer an issue.	28.1% (n=72)	7.0% (n=33)	.000
Informal networks in my department/division systematically exclude faculty on the basis of gender.	28.1% (n=72)	7.0% (n=33)	.000

Legend: A five point Likert scale ranging from 1 = “disagree strongly” to 5 = “agree strongly” was used to measure the responses to these statements. The percentage of agreement reported in this table was determined by adding the percentages of respondents who answered with a response of 4 = “agree” or 5 = “strongly agree”.

Workplace Perceptions and Demographics

The older the male respondents were, the more they felt welcome in the dental school environment ($r=.095$; $p=.039$), and the less they agreed with the statement that the environment was "...less supportive of women" ($r=-.085$; $p=.066$). However, women did not differ in their response to these two items as a function of their age ($r=.058$; n.s.; $r=.039$; n.s). Compared to men, women of all ages felt less welcome than their male colleagues, and felt that the environment was less supportive of women.

Tenured and non tenured faculty members differed significantly in the degree to which they felt welcome in the dental school environment. While 68.9% of the tenured faculty felt welcome, only 57.1% of the non tenured faculty members felt welcome ($p=.007$). However, tenure status did not affect the responses to whether the environment was less supportive of women than men (tenured: 16.8% vs. non-tenured: 16.2%).

Finally, the data showed that larger percentages of women at lower ranks felt less welcome than men (assistant professors: women: 59.3% vs. men: 33.3%; associate professors: 51.7% vs. 25.9%). At the full professor level, female faculty members did not differ from male faculty members in their perceptions of being welcome (23.1% vs. 23.1%). However, independent of academic rank, more women than men perceived that the environment was less supportive of women (assistant professors: 25.3% vs. 8.9%; associate professors: 37.2% vs. 9.8%; full professors:

20.5% vs. 9.3%; interaction effect gender x rank: $p=.002$). The percentages of women with different academic ranks who agreed with this statement did not differ significantly ($p=.109$).

The number of women in a department and the degree to which they felt welcome were not significantly correlated. Just having more female colleagues around, did not make women feel more welcome. However, the greater the number of women in a department, the less likely the women were to agree with the statement that the environment was non supportive of women ($r=-.131$; $p=.043$). In short, having more women around helped women to perceive that the environment was more supportive for women. However, having more women around did not make women feel more welcome.

Perception And Experience of Bias And Harassment by Gender

Table 4 shows that more female respondents than male respondents perceived gender bias in the academic environment (men: 9.9% vs. women: 33.3%; $p=.000$). Significantly more women (28.7%) than men (6.6%) reported that they had experienced gender bias in professional advancement ($p=.000$). While only a small percentage of women reported that their gender had given them a professional advantage (16.4%), an even smaller percentage of male respondents (6.5%) agreed with this statement ($p=.000$). Almost one-third of female faculty (32.7%) reported that they had been sexually harassed by a superior or colleague compared with only 3.4% of male faculty ($p=.000$). Compared to men, more women felt that harassment had been a major

problem at work (men: 1.8% vs. women: 8.5%) And that they did not feel comfortable raising issues related to sex bias with colleagues (men: 14.7% vs. women: 34.9%; $p=.000$).

Table 4: Perception and Experience of Bias and Harassment by Gender

Perception	% Agree With Statement		
	Women (n=257)	Men (n=481)	p
I have encountered unwanted sexual comments, attention, or advances by a superior or colleague.	32.7% (n=83)	3.4% (n=16)	.000
My encounter or unwanted sexual comments, attention, or advances by a superior or colleague has been a major problem.	8.5% (n=21)	1.8% (n=8)	.000
Gender specific biases to career satisfaction are present in my academic environment.	33.3% (n=85)	9.9% (n=46)	.000
I have been left out of opportunities for professional advancement based on gender.	28.7% (n=73)	6.6% (n=31)	.000
I am uncomfortable raising issues related to sex bias with my colleagues.	34.9% (n=89)	14.7% (n=69)	.000
I have had increased opportunities for professional advancement based on gender.	16.4% (n=42)	6.5% (n=30)	.000

Legend: A five point Likert scale ranging from 1 = “disagree strongly” to 5 = “agree strongly” was used to measure the responses to these statements. The percentage of agreement reported in this table was determined by adding the percentages of respondents who answered with a response of 4 = “agree” or 5 = “strongly agree”.

DISCUSSION

Work Environment

In the present study, male and female dental faculty differed significantly in the perceptions of their work environment. On the whole, male dental faculty members evaluated their work environment more positively than female faculty members.

Compared to male respondents, female respondents agreed significantly more with statements indicating that

- they were less welcome as members of the dental school community,
- the professional environment in departments and divisions was less supportive of women,
- male faculty with comparable expertise were more likely to be sought for collaborative research efforts,
- they had observed more situations in which women faculty were denigrated based on gender,
- males had difficulty taking the careers of female faculty seriously,
- faculty members are not comfortable raising issues about the treatment of women,
- most faculty would not be comfortable with a female chairperson,
- equal pay for male and female faculty is still an issue, and
- informal networks in their department/division systematically exclude faculty members based on gender.

These results lead to the conclusion that overall, female dental educators perceive their environment as more “chilly” than their male counterparts. An interesting question is why this is the case. Two structural factors may be of importance here. First, women have been and are still underrepresented in dentistry in the US. In 1970, less than one percent of US dental school graduates were women^{16, 17}, and in 1980, only about 4 percent of practicing US dentists were women¹⁸. Currently, approximately 38% of dental students are women, but only 14.1% of practicing dentists are female^{18, 19}. In

many instances, women dentists – and female dental educators - may still be in a minority position. A second factor may stem from the historical division of labor in the dental field in the US. While women have been and are still underrepresented in dentistry, 99% of dental hygienists and 96% of dental assistants are female²⁰. The balance of power between women and men in dentistry may be influenced by perceptions of power differentials between dentists and dental hygienists and assistants. These dentistry specific considerations contribute to the more general historical situation of professional women in the US²¹.

Medical vs. Dental Faculty Responses

When these dental faculty responses were compared with the responses of medical school faculty members from the surveys administered by Fried et al.⁷, and Foster et al.⁹, comparable results were found.

- 30.0% of dental female faculty and 9.3% of dental male faculty supported the item “The work climate in my department and/or division is less supportive of female than of male faculty” item ($p=.000$). This same trend was found in the medical school surveys by Fried et al.⁷ (women: 45.0% vs. men: 22.5%; $p=.028$), and by Foster et al.⁹ (women: 37.5% vs. men: 7.5%; $p<.001$).
- Comparable trends were also found concerning the statement “Male faculty are more likely to be sought for collaborative research, given comparable scientific expertise”. 45.1% of the female dental respondents as compared to 8.4% of male dental respondents agreed with this statement ($p=.000$). 59% women vs. 16% men ($p=.001$) in

the survey conducted by Fried et al.⁷, and 67% women vs. 7% of men ($p=.001$) in the survey conducted by Foster et al.⁹ agreed with this statement.

- The statement “I have observed situations in which a faculty member has been denigrated based on gender” was supported by 41.3% of the female dental respondents vs. 16.6% of the male dental respondents ($p=.000$), and by 30% women vs. 6% men ($p=.001$), and 34% women vs. 17% of men ($p= .001$) in the medical school surveys^{7,9}.

Similar responses were also found concerning the statements

- “Male faculty have difficulty taking careers of female faculty seriously and accepting females as colleagues” (Dental survey: 45.9 % women vs. 9.7% men; $p=.000$; Medical surveys: 53% women vs. 17% men; $p<.001$; and 75% women vs. 32% men; $p=.001$),

- “Informal networks in my department/division systematically exclude faculty members on the basis of gender” (Dental survey: 28.1% women vs. 7.0% men; $p=.000$; Medical surveys: 24% women vs. 6% men; $p<.001$; and 32% women vs. 2% of men; $p=.004$), and

- “I feel like a welcomed member of my dental school scientific community” (Dental survey: 50.2% women vs. 73.8% men; $p=.000$. Medical surveys: 57% women vs. 72% men; $p=.003$; and 38% women vs. 74% men; $p=.001$).

These comparisons between the faculty responses concerning the dental school vs. medical school environment demonstrate that a faculty member’s gender still plays a powerful role in both environments.

Sexual Harassment

The responses of dental faculty members to the questions in this survey dealing with harassment and the previous data reported by Carr⁸ for medical school faculty showed that gender specific harassment remains an issue in both environments. Both studies showed that compared to men, female faculty members were more likely to experience and perceive gender-based discrimination and harassment in both academic settings.

- 33.3% of female dental faculty vs. 9.9% of male dental faculty, and 77% of female medical faculty vs. 30% of male medical faculty⁸ agreed with the statement “Gender specific biases to career satisfaction are present in my academic environment.”.

- In addition, 28.7% of female dental faculty respondents, but only 6.6 % of male dental faculty respondents indicated that they had experienced gender bias in professional advancement ($p=.000$), as compared to 60% of women vs. 9% of men in the medical profession⁸.

- In the dental survey, more female dental faculty than male dental faculty also felt that gender had given them an advantage in professional advancement (16.4% and 6.5%; $p=.000$). It is interesting that even more female medical faculty as compared to male medical faculty had agreed with this statement (31% vs. 11%; $p<.001$).⁸

- However, almost one-third of the female dental faculty respondents (32.7%) reported having been sexually harassed by a superior or colleague compared with only

3.4% of male dental faculty ($p=.000$), and more than one-half of the female medical faculty (52%) reported sexual harassment by a superior or colleague compared with only 5% of the male medical faculty respondents ($p<.001$).⁸

When the effects of age, and faculty status / rank on workplace perceptions were explored, an interesting pattern emerged. The data showed that older male respondents felt more welcome than younger male respondents, while women of all ages felt less welcome than their male colleagues, and felt that the environment was less supportive of women than their male colleagues. These data suggest that it will take supportive and active leadership such as was the case at the Massachusetts Institute of Technology (MIT)²² to create the conditions conducive to change women faculty members' perceptions of the environment and the degree to which they are welcome and integrated as fully accepted colleagues²³.

CONCLUSION

The results of this survey showed that compared to male faculty, female dental faculty reported:

- having fewer resources such as office space, secretarial support, protected time for research, and lab space;
- feeling less welcome and to perceive the environment as being less inclusive of them, and
- experiencing more gender bias and sexual harassment.

These findings in the dental school setting are consistent with the results of surveys in US medical schools that showed that female faculty experience and perceive their work environments as more chilly than their male colleagues⁷⁻¹⁴. In both environments, women faculty reported that they were likely to be the recipients of gender bias.

The increasing numbers of women in academic medicine and dentistry show that women are making progress in entering the academic workforce. However, the results of this survey showed that male and female faculty members still do not encounter comparable situations in their professional lives. Hostler¹³ sums up the perception of gender fairness issue: "The level of sexism at any institution can be a matter of perception...it is well known that perceptions are not necessarily fact. It may be that inequities and sexism exist, but not necessarily at the level of severity that women perceive. It may also be that men perceive a level of gender fairness that is far above what really exists. Regardless, a significant difference in perceptions is problematic...without a method of identifying such a magnitude of discrepancy, needed changes may go unrecognized or be slow in coming." Acknowledging that the dental school climate is not gender blind can be a first step on the way to improve the work environment for all dental faculty members.

Given the fact that these findings are reported on an aggregate level it might be easy for senior administrators in a given dental school to conclude that the findings

reported here describe problems in all but their own school. However, administering these items in one's own school and thus conducting a gender specific cultural audit might be eye opening for a given dental school leadership. A first recommendation based on these results to dental school leaders is therefore to explore the situation of female and male faculty in their own institutions in order to gain a better understanding of school specific problems, develop strategies to remedy gender biased situations, and create a dental workforce that is able to provide culturally sensitive care²⁴.

In summary, given the crisis in the recruitment and retention of dental faculty members, it seems crucial to gain a better understanding of how to create a work environment in which both male and female faculty members feel welcome and supported. Creating such environments will create a more positive attitude toward work and hopefully will encourage more faculty to remain in the academic workforce. It will also ultimately provide the role models needed for dental students to encourage them to choose dental educator careers and thus aid faculty recruitment in the future.

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