Addressing Issues of Inclusive Workplace Culture for Women Orthopedic Surgeons in Academia: A Mixed-Methods Investigation

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INTRODUCTION:
Orthopedics continues to be the least gender-diverse specialty in academic medicine. In addition to the underrepresentation of women, there is also concern about reduced promotion and advancement for women faculty. This leads to decreasing diversity with increasing academic rank, a construct known as the “leaky pathway phenomenon.” Prior literature has been reliant upon survey instruments to study discrimination and harassment experienced by women surgeons, but these methodologies and research focuses do not comprehensively capture the nuances of inclusive orthopedic workplace culture. This led us to ask: (1) What aspects of workplace culture enhance or detract from building an inclusive workplace for women surgeons in academic orthopedics? (2) What actions can people take to create inclusive workplaces in academic orthopedics?

METHODS:
We conducted a mixed-methods investigation using a quantitative-preliminary priority sequence model study design, in which a principally qualitative study begins with a complementary quantitative study. In the quantitative portion of the study, women orthopedic surgery faculty members in the United States who were members of the Ruth Jackson Orthopedic Society (RJOS) were anonymously surveyed using an instrument comprised of a validated scale measuring gender bias experiences and a scale with face validity measuring thoughts of leaving. Descriptive statistics were calculated. Given that the data was non-parametric, a median value of >= 4 was considered evidence that the barrier existed because this corresponded to “Agree” or “Strongly agree” on the Likert scale. These responses were used to refine our qualitative interview guide and serve as a data triangulation source. In the qualitative portion of the study, women orthopedic surgeons in the United States who currently hold or previously held an academic position were recruited using purposive sampling techniques to obtain a sample of women with a range of training backgrounds, races/ethnicities, academic institutions, subspecialties, and geographic locations. One-on-one interviews were conducted virtually using a semi-structured interview guide. Interview transcripts were first analyzed by attaching inductive (data-derived) codes to relevant sections of text. Coded data was then organized into larger conceptual themes and mapped onto a conceptual model of inclusive workplace culture. Recruitment continued until no new information was uncovered in data analysis (thematic saturation).

RESULTS: 58 women faculty members responded to the survey (~20% response rate). Women reported experiencing gender bias within the sub-domains of male culture, constrained communication, unequal standards, salary inequity, and workplace harassment (Table 1). In the past month, 48% of women (n=28/58) were having thoughts of leaving their institution, with 9% of these women (n=5/58) having thoughts of leaving “very often.” In the past month 28% of women (n=16/58) were having thoughts of leaving the field of orthopedic surgery, with 5% (n=3/58) having those thoughts “very often.” Thematic saturation was achieved after 26 interviews. Our qualitative model of inclusive workplace culture for women in academic orthopedic surgery was built upon two separate but interrelated pillars: “structures of support” and “social inclusion” (Figure 1). The first pillar, structures of support, is primarily under the direction of department leaders, and includes themes of intentional career development, valuing diverse contributions, transparent structures and policies, and building department cohesiveness. The second pillar, social inclusion, relies upon all members of an organization including leaders, peer surgeons, and staff members. Themes within the social inclusion pillar are: respect for women, male allyship, women supporting women, and true integration of women surgeons.

DISCUSSION AND CONCLUSION: With intentional effort from department leaders, peer surgeons, and staff members, we can work towards creating orthopedic departments that have the structures of support necessary to foster women’s career success and longevity, as well as the social inclusion to demonstrate to women that they belong and thus facilitating retention and advancement of women in academic orthopedics.

Figure 1

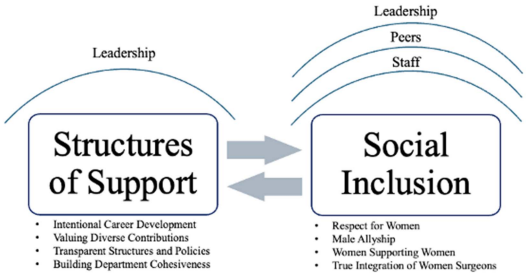

Table 1

Higher order domain	Median	Lower order domain	Median
Male privilege	3	Glass Cliff	2.5
		Male Culture	**4**
		Two-Person Career Structure	2
Disproportionate Constraints	**4**	**Constrained Communication**	**4**
		Constrained Career Choices	1
		Unequal Standards	**4**
Insufficient Support	2	Exclusion	2
		Lack of Mentoring	3
		Lack of Sponsorship	2.5
Devaluation	3	Lack of Acknowledgement	3
		Salary Inequity	**4**
Hostility	3	Queen Bee Syndrome	2.5
		Workplace Harassment	**4**
Acquiescence	2	Self-Silencing	2
		Self-Limited Aspirations	2