

Factors That Influence Women Orthopaedic Surgeons' Selection of Sports Medicine: A Mixed-Methods Study

Nichelle Moné Enata¹, Katherine Gerull², Mary K Mulcahey, Ahmed Hanafy, Derrick Knapik, Matthew V Smith³

¹Department of Orthopaedic Surgery, ²Washington University In St. Louis School of Medic, ³Washington University

INTRODUCTION: The proportion of women sports medicine surgeons in the United States remains less than 10%. The purpose of this study was to investigate women orthopedic surgeons' experiences and perceptions of sports medicine and identify variables contributing to their interest or disinterest in pursuing a career in sports medicine.

METHODS: A mixed-methods approach, including an online anonymous 30-item survey and semi-structured qualitative interviews, was used to investigate the clinical experiences of women in orthopaedic sports medicine to evaluate their perceptions of sports medicine compared to women in other orthopaedic subspecialties. A one-time anonymous survey was electronically distributed to members of Ruth Jackson Orthopaedic Society (RJOS) and Women in Orthopaedics, a private online group consisting of women orthopaedic surgeons. The survey consisted of non-validated scales measuring sports medicine experiences and perceptions of belonging and gender bias. Interview participants were selected using purposive sampling strategies to capture a diverse range of perspectives and backgrounds until thematic saturation was achieved. Interviews were conducted one-on-one over video conferencing using a semi-structured interview guide. Qualitative data was analyzed using a grounded theory approach which involved open coding, axial coding and selective coding to create a model of women's interest in sports medicine careers.

RESULTS:

One hundred sixty-two women completed the online survey. Twenty-two women (11 sports-medicine fellowship-trained orthopaedic surgeons, 11 non-sports-trained orthopaedic surgeons) were interviewed. No significant differences between women who completed sports medicine fellowship training versus those in other subspecialties were appreciated based on years in practice (OR:0.7, 95% CI: 0.37-1.38 p= 0.32), duration of sports medicine clinical experience in residency (OR: 0.7, 95% CI: 0.35-1.3 p= 0.242), or participation in athletics (OR:1.5, 95% CI: 0.6-3.9 p= 0.39) based on online surveys. Perceived discrimination based on gender occurring more than once yearly during their sports medicine clinical experiences was reported in 76% (n=120/162) of respondents. 57% of those facing discrimination reported attending physicians as the source of discrimination, 54% reported discrimination from patients, 42% reported discrimination from support staff, and 30% reported discrimination from residents or fellows (Fig. 1). No significant difference between sports-trained versus non-sports trained women regarding gender discrimination (OR:2.1, 95% CI 0.91-4.8, p=.078) was appreciated. In the qualitative model, women often reported a strong self-identity in athletics (or lack thereof) prior to clinical exposure (Fig. 2) Over the course of residency training, interest in sports medicine was ultimately based on the scope of practice and the perception of the culture within sports medicine. Within scope of practice, surgeries unique to sports medicine, team coverage responsibilities, patient population, and lifestyle were found to be driving factors in career decision-making. Within culture, interviewees identified themes including perceived stereotypes, mentorship, gender bias, and department environment as modifiable factors in their decision-making.

DISCUSSION AND CONCLUSION:

Women orthopaedic surgeons perceive gender discrimination from multiple sources during their sports-medicine clinical training. Such discrimination, however, does not seem to directly impact their decision to pursue a career in sports medicine and is comparable to rates of perceived mistreatment amongst women across orthopaedics in general. The scope of practice and culture were identified as factors which contribute to a woman's decision to pursue fellowship training in orthopaedic sports medicine.

