

# A Comprehensive Exploration of Challenges, Opportunities, and Perspectives: A Survey of Women Orthopaedic Surgeons

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## INTRODUCTION:

The representation of women in orthopaedic surgery has historically been significantly lower than that of other medical and surgical disciplines. Numerous studies have identified systemic barriers and instances of discrimination throughout the training process. However, few have explored the perspectives of current women orthopaedic surgeons on their career paths and current practice. The objective of this study was to provide an in-depth analysis of the experiences and opinions of women in the field to identify key factors that contribute to their career satisfaction and challenges they face in their professional and personal lives. [The study sought to offer valuable insights for addressing the gender disparity in orthopaedic practice and inform strategies to support and promote the success and well-being of women orthopaedic surgeons.](#)

**METHODS:** A 45-item cross-sectional survey was disseminated to practicing or retired orthopaedic surgeons who identify as women within the Ruth Jackson Orthopaedic Society. The survey included participant's demographics, career description, work-life balance, leadership training, mentorship, discrimination, and overall satisfaction. The survey was open for 30 days, and two reminder emails were sent during this period. Survey participation was anonymous and entirely voluntary. Statistics were conducted with alpha value of 0.05.

**RESULTS:** Sixty-five participants responded to the survey. The average age of participants was  $48.7 \pm 11.1$  years, with a mean of  $15.1 \pm 11.0$  years in practice. In total, 89.2% of the participants identified as White, 3.1% as Black, and 4.6% as Asian. Some 9.2% of participants identified as Hispanic or Latino ethnicity. In total, 83.1% of respondents reported being married or in a long-term relationship; 13.9% reported having 1 child, 53.9% have 2 to 3 children, and 4.6% >3 children. Pediatrics (n=20) and Hand (n=10) were the most reported subspecialties. Participants reported working  $53.9 \pm 17.9$  hours on average every week with the most amount of time being spent on being a clinician ( $36.5 \pm 17.8$  hours), teacher ( $18.8 \pm 18.5$  hours), and administrator ( $10.8 \pm 14.5$  hours) (Figure 1). A majority of participants (64.1%) reported being satisfied with the amount of time they spend with their families, and a majority (58.5%) reported eating dinner with family at least 5 times in a typical work week. The top 3 most cited valuable aspects of a career in orthopaedics in descending order were "patient interactions," "operating," and "colleagues." The top 3 least favorable aspects in descending order were "documentation," "time away from family," and "administrative commitments." When asked about their path to becoming a leader in orthopaedic surgery, participants indicated that the residency stage of training had the greatest impact on shaping their career goals compared to the other stages of medical school, assistant professor, associate professor, professor, or other (40%,  $p < 0.001$ ). Those who identified as physician-scientists reported medical school as being the most pivotal period (50.0%,  $p=0.156$ ). Among respondents who lead departments/divisions and held leadership positions in national organizations, the majority pointed to their early career as an assistant professor as the critical moment when they made the decision to pursue leadership roles (Figure 2) (30.0%,  $p=0.271$ ). A majority of respondents (n=55) reported experiencing discrimination during training compared to not (n=10) ( $p < 0.001$ ). Specifically, respondents most often experienced discrimination in "early career in practice," followed by residency, and medical school ( $p < 0.001$ ). In terms of the importance of mentorship, respondents ranked medical school as the most critical stage for mentorship, followed by fellowship, early career in practice, and residency ( $p < 0.001$ ).

**DISCUSSION AND CONCLUSION:** There is a great degree of variety in practice characteristics among women orthopaedic surgeons, particularly in respect to specialty, administrative burden, and education/mentorship responsibilities. The results from the current study indicate that while women orthopaedic surgeons consider residency and early practice the most vital in deciding their career path, these stages are also when they most commonly report facing challenges such as discrimination with potential ramifications on career satisfaction. Based on this, efforts should be made to foster inclusive and equitable training environments that promote diversity and discourage discrimination, especially in residency programs. Mentorship programs should also be strengthened and expanded to provide support throughout different stages of a woman surgeon's career, starting from medical school and continuing through residency, fellowship, and early practice years. The findings of this survey provide valuable insights for developing interventions and policies that aim to increase the representation and success of women orthopaedic surgeons. By addressing systemic barriers, improving mentorship opportunities, and promoting work-life balance, orthopaedic organizations can foster an environment that encourages and supports the growth and advancement of women in the field.

