The Impact of Social Media for Adult Reconstruction Surgeons: A Prevalence and Correlation Study with Online and Academic Reputations

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INTRODUCTION: Social media has emerged as a powerful tool that has transformed communication and decision-making across the medical profession, including within the arthroplasty community. This study examined the impact of social media use by adult reconstruction surgeons on both online patient satisfaction and research engagement.

METHODS: The American Association of Hip and Knee Surgeons (AAHKS) directory was reviewed for all members in the United States. Online searches were conducted on 239 randomly sampled members for professional profiles on ResearchGate, LinkedIn, X, Instagram, Facebook, TikTok, and YouTube. The number of followers on each account was recorded. The presence of personal or practice group websites was also assessed. Healthgrades, Google Reviews, and Vitals were queried for each surgeon's available average ratings, number of reviews, and number of comments. Surgeons' h-indices were recorded from Scopus. A summated online presence score was calculated to identify the top 15% of social media users in the sample. Student's *t*-tests were used to compare average ratings, number of ratings, and number of comments from each physician rating website based on the following variables: social media usage (top 15% vs. remaining 85%), presence of each social media platform, and active presence on each social media platform.

RESULTS SECTION: 213 adult reconstruction (AR) fellowship-trained and 26 non-AR fellowship-trained surgeons were included in the study. The top 15% of social media users in the sample had higher mean Google Reviews ratings compared to the remaining 85% (4.7 versus 4.1; $P < 0.05$; Table I). Surgeons with professional Instagram and Facebook profiles had higher average Google Reviews ratings than those without (4.8 versus 4.5; $P < 0.001$) and (4.8 versus 4.4; $P < 0.001$), respectively. Surgeons with LinkedIn and ResearchGate profiles also had higher average h-indices than those without (9.2 versus 5.9; $P = 0.03$) and (17.9 versus 6.6; $P < 0.001$), respectively.

DISCUSSION: Social media engagement and overall online presence were positively associated with patient-reported ratings on physician rating websites. Activity on LinkedIn and ResearchGate also positively correlated with higher h-indexes, reflecting greater research engagement. However, it is important to consider that surgeons with higher degrees of social media engagement may be involved in marketing strategies that help them maintain both favorable patient ratings and online impressions. This would have introduced significant bias to our findings.

SIGNIFICANCE/CLINICAL RELEVANCE: As social media engagement among adult reconstruction surgeons continues to grow, web-based marketing can create valuable platforms to encourage patient engagement and promote academic literature.

IMAGES AND TABLES:

Table I. Online Patient Ratings and Engagement Between Top 15% versus Bottom 85% of Social Media Users Based on Cumulative Social Media Score for Adult Reconstruction Orthopaedic Surgeons

	Top 15% n=45	**Bottom 85%** n=194
Healthgrades		
Mean Rating, SD	4.5 (0.5)	4.4 (0.6)
Mean Number of Ratings, SD	74.3 (84.7)	63.2 (68.9)
Mean Number of Comments, SD	54.9 (69.4)	44.2 (53.7)
Google Reviews		
Mean Rating, SD*	4.7 (0.4)	4.4 (1.1)
Mean Number of Ratings, SD	106.3 (142.0)	95.4 (128.5)
Vitals		
Mean Rating, SD	4.2 (0.6)	4.4 (0.8)
Mean Number of Ratings, SD	60.4 (123.9)	43.2 (48.0)
Mean Number of Comments, SD	37.0 (82.3)	24.5 (36.5)
Mean H-Index, SD	12.0 (17.1)	7.1 (11.1)
Mean Years As Attending, SD	16.3 (9.2)	19.1 (10.8)

* Indicates P <0.05