The Impact of Social Media for Adult Reconstruction Surgeons

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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 arthroplasty 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 250 randomly sampled members for professional profiles on ResearchGate, LinkedIn, X (formerly known as Twitter), Instagram, Facebook, TikTok, and YouTube, and 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 a surgeon's available average rating, number of reviews, and number of comments. Each surgeon's h-index was recorded from Scopus. A summated online presence score was calculated to identify the top 15% of social media users in the sample. Exclusion criteria included surgeons practicing outside the United States, those in active-duty military service, individuals still in training (residents and fellows), and those retired from clinical practice, resulting in a final sample of 239 surgeons.

RESULTS:

239 arthroplasty surgeons, consisting of 213 adult reconstruction (AR) fellowship-trained and 26 non-AR fellowship-trained surgeons, were included in the study after meeting inclusion and exclusion criteria. The top 15% of social media users 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, $P < 0.001$; 4.8 versus 4.4, $P < 0.001$, respectively). Arthroplasty surgeons with practice group websites had higher average number of ratings on Healthgrades, Google Reviews, and Vitals than those who did not have such websites (66.7 versus 27.8, $P = 0.01$; 100.8 versus 13.0, $P < 0.001$; 47.4 versus 23.1, $P = 0.01$, respectively). Additionally, surgeons with LinkedIn and ResearchGate profiles had higher average h-indexes than those without such profiles (9.2 versus 5.9, $P = 0.03$; 17.9 versus 6.6, $P < 0.001$, respectively).

DISCUSSION AND CONCLUSION:

Social media engagement and overall online presence were positively associated with patient ratings on physician rating websites. Activity on LinkedIn and ResearchGate positively correlated with a surgeon's degree of research engagement, reflected by a higher h-index. As social media engagement among arthroplasty surgeons grows, web-based marketing can create valuable platforms to enhance patient engagement and promote academic literature.

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