A Comparison of the Highest and Lowest Ranked Social Media Influencers in Acute Care on Twitter

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Background

- The distribution of content related to acute care surgery in social media is steadily increasing.
- Twitter is one of the most popular social platforms used to disseminate information.
- The aim of this study was to identified and compare the 25 highest and lowest ranked social media influencers in the field of ACS on Twitter, with respect to their demographics, academic productivity, and industry funding.

Methods

- Twitter influence scores for the topic search “acute care ”
- The accounts associated with the 25 highest and lowest influencer scores were linked to individual names, advanced degrees, specialty, practice setting, location of practice, gender, h-index, number of publications, number of citations, NIH funding, industry funding, the year they graduated fellowship

Results

- Of the social influencers (n=50) included the majority were US based (80%), Caucasian (60%), and male (65%). Surgeons made up 62% of the social influencers, 14% were non-surgeon physicians, 2% we researchers, and 20% of the twitter handles belonged to an organization. An advance degree was seen in 37.5% of individual social influencers.
- The highest ranked influencers exhibited significantly higher H-index (20 ± 27 vs. 12 ± 10) and number of publications (89 ± 188 vs. 31 ± 56) compared to the lowest ranked influencers ($p<0.05$).

Table 2. Social Influencer Demographics

	All Social Influencers	Highest Ranked Social Influencers	Bottom Ranked Social Influencers	
Characteristic	No (%)	No (%)	No (%)	P-Value
Sex (male)	26 (65%)	14 (56%)	12 (80%)	0.12
Advance Degree				0.16
MPH	8 (20%)	6 (24%)	2 (13%)	
MBA	1 (2.5%)	0	1 (6.6%)	
PhD	6 (15%)	2 (8%)	4 (26.7%)	
Occupation				
Surgeon	31 (62%)	25 (100%)	6 (24%)	<0.01**
Other Physican	7 (14%)	0	7 (28%)	
Research	2 (4%)	0	2 (8%)	
Organization	10 (20%)	0	10 (40%)	
Location				<0.01**
International	10 (20%)	0	10 (40%)	
Domestic	40 (80%)	25 (100%)	15 (60%)	
Race				0.84
African American	4 (10%)	2 (8%)	2 (13.3%)	
Caucasian	24 (60%)	15 (60%)	9 (60%)	
Other	12 (30%)	8 (32%)	4 (26.7%)	
Residency Graduation (Year)	2006 ± 10.5	2006 ± 9.5	2005 ± 15.5	1
Practice Setting				0.19
Private	5 (12.5%)	2 (8%)	3 (20%)	
Academic	33 (82.5%)	23 (92%)	10 (66.7%)	
Faculty Position				0.19
Resident	1 (2.5%)	0	1 (6.7%)	
Full Professor	15 (37.5%)	12 (48%)	3 (20%)	
Associate	9 (22.5%)	6 (24%)	3 (20%)	
Assistant	6 (15%)	5 (20%)	1 (6.7%)	
Adjunct Professor	1 (2.5%)	0	1 (6.7%)	
NIH funding (dollars)	361,355 ± 329,920	268,504 ± 442,470	394,116 ± 65,522	0.85
No. Publications	69 ± 109	89 ± 188	31 ± 56	0.01**
H-Index	16 ± 23	20 ± 27	12 ± 10	0.02**

NIH; National Institute of Health. ** Statistically Significant

Conclusions

- Individuals in the top ranked cohort differed statistically based on academic success, location, and occupation.
- As social media continues to expand as a source of information for patients, this study provides some reassurance to the quality and merit of content disseminated by influencers of Twitter.

References

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