Instagram influencer definitions and the need for dermatologist engagement on social media

To the Editor: We thank Bressler and Zampella for their thoughtful comments on our article "Dermatology without dermatologists? Analyzing Instagram influencers with dermatology-related hashtags."[1] Given our goal to accurately identify dermatology influencers, we appreciate their concerns regarding the use of follower counts. As pointed out, follower counts do not always translate to influence, because accounts may have paid for followers. We thus agree on the importance of considering objective measures of engagement. In our study, we anticipated this concern and used 2 definitions of influencers: one based on follower count (greater than 40,000) and a second based on capturing high engagement (number of appearances in Instagram's Top 9).

Our goal in the study was to identify accounts producing popular dermatology content. We were limited by the proprietary nature of Instagram's algorithm for Top 9 posts. However, this algorithm most likely measures engagement (likes and comments) and growth.[2] While one of our criteria identified accounts based on the Top 9, our second definition (based on follower counts) was meant to be an objective alternative, regardless of how these followers were obtained. We reasoned that using both criteria together would provide the best representation of the most popular influencers.

In future research, identifying influencers may be improved with new analytics. Bressler and Zampella make a compelling argument for engagement rate (ER). Following their suggestion to use SocialBlade, an ER measurement tool, we compiled ERs of our study's identified influencers (Table I).[1,3] SocialBlade calculates ER based on the creator's 20 most recent posts. Overall, our influencers' average ER (3.21%) matched the average ER across all public Instagram users.[3] Accounts with more followers (lower average ER) had a larger estimated user reach compared with accounts with fewer followers (higher average ER). Further, board-certified dermatologists had a lower ER (1.87%) than other groups.

Despite its utility, ER also has weaknesses; for example, users can purchase likes and comments. Future studies should carefully consider the merits and faults of various metrics and discuss their limitations.

Ultimately, no perfect or consensus metric for influencers currently exists. Still, multiple different definitions (follower count, Top 9 appearances, and ER) consistently demonstrated data supporting one conclusion: board-certified dermatologists represent a tiny fraction of users generating the most popular Instagram dermatology content. The American Academy of Dermatology and other organizations may recognize the potential, investing more in Instagram, but have yet to master the new medium. One study of Facebook regarding skin cancer prevention found that most messages from professional organizations were didactic and focused on skin cancer risk using a strategy of fear appeal, which may prove ineffective in gaining social media influence.[4]

We encourage dermatologists and dermatology organizations to engage and generate quality posts accessible to the dermatology-seeking Instagram audience. Successful engagement may require different strategies, such as positive messaging, comedic meme use, hiring social media managers, and interacting with popular influencers, especially

Table I. Engagement rates associated with influencer criteria

Variable	Number*	Average engagement rate, %†	Estimated user reach‡
Influencer criteria[1]			
All	132	3.21	6-45,457
Top 9, ≥5 times	64	3.45	6-39,474
≥40,000 followers	103	2.77	60-45,457
Board-certified dermatologists	6	1.87	322-4099
Influencer stratification by Later blog[3]			
Nano (<10,000 followers)	14	6.17	6-976
Micro (10,000-50,000 followers)	34	3.12	187-3632
Midtier (50,000-300,000 followers)	69	2.86	60-35,989
Macro (≥300,000 followers)	15	2.27	1513-45,457

*14 of 146 influencers were excluded due to unavailable engagement rate on SocialBlade.[1]
†Calculated by SocialBlade.com based on an account's 20 most recent posts (as of July 17, 2020).
‡Defined as minimum and maximum user reach per criteria. User reach calculated as influencer's follower count from original data[1] × the influencer's engagement rate.

prominent figures outside the traditional dermatology community with a larger reach.

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