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Letter to the Editor

Instagram Utilization Among ACGME-accredited Anesthesiology Residency Programs in the United States

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To the Editor:

As the Coronavirus Disease 2019 (COVID-19) pandemic has led to the rise of virtual platforms for interviewing and sharing information related to anesthesiology residency programs, there has been interest in using Instagram and other social media platforms to increase program presence. Fields like dermatology, oral/maxillofacial surgery, and plastic surgery have used Instagram, sometimes in private practice settings, to educate patients and market their products and services.[1-3] Instagram has been a popular social media platform in the United States to disperse information and to market products. This letter is intended to assess the extent of Instagram utilization and engagement in American College of Graduate Medical Education (ACGME)-accredited anesthesiology departments in the United States.

We identified ACGME-accredited anesthesiology residency programs using the ACGME Directory online. Anesthesiology residency programs with Instagram accounts were identified and evaluated during mid-March 2021 by authors JYL and NR. Discrepancies between these authors were reconciled on independent review. We collected residency program profile information from the Doximity Web site based on the 2021 year. Instagram Engagement Scores were obtained from SocialStats.info also during mid-March 2021.

Instagram account characteristics are captured in Table 1. Of 160 total ACGME-accredited anesthesiology programs, 92 had active accounts, 66 had highlights, 6 had reels, 35 used TV, 15 had active program leadership accounts, and 89 had active affiliated hospital accounts. The top 3 programs with the most followers were (1) Brigham and Women's Hospital (2815); (2) Stanford University Programs (2584); and (3) Massachusetts General Hospital (2494). The top 3 programs with the highest Instagram Engagement Scores were (1) University of Arizona (29.71); (2) Cook County Health and Hospitals (26.53); and (3) Maimonides Medical Center (21.26). Following univariate analysis in Table 2, factors that affected total number of followers were as follows: total accounts following ($P < .001$), total number of posts ($P < .001$), department posts ($P < .001$), academic posts ($P < .001$), social posts ($P < .002$), other posts ($P < .001$), and total number of residents ($P < .001$). Factors that affected Instagram Engagement Scores were as follows: total number of posts ($P < .001$), department posts ($P < .001$), academic posts ($P < .011$), and other posts ($P < .009$).

On evaluating Instagram utilization among ACGME-accredited anesthesiology programs, we found that certain factors may increase a program's presence on Instagram. Programs that post more content (eg, greater total number of posts, departmental posts, social posts) and follow more accounts are also more likely to have more followers. Programs with more active presence thus have larger followings. Regarding Instagram Engagement Scores that reflect the individual engagement of the account's followers, we found that programs with more department and academic posts may have higher Instagram Engagement Scores. Following more accounts is not associated with higher Instagram Engagement Scores, nor is having a larger residency class.

This Letter to the Editor was intended to provide an assessment of Instagram utilization and to show which aspects can be improved to connect and engage with the most users. In the future, and especially during the COVID-19 pandemic, Instagram may be a valuable social media tool to improve residency education and recruitment for anesthesiology residency programs.

References

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Tables

Table 1. *Instagram Account Characteristics*

Characteristic	No.
Total No. of active accounts	92
Total No. of accounts with highlights	66
Total No. of accounts with reels	6
Total No. of accounts with TV	35
Total No. of active program leadership accounts	15
Total No. of active affiliated hospital accounts	89
	Mean ± SD (Range)
Total No. of posts	87.26 ± 83.184 (5-426)
Total followers	845.42 ± 513.632 (49-2815)
Total No. of accounts followed	233.98 ± 334.624 (0-2832)
Total No. of educational posts	9.45 ± 15.985 (0-140)
Total No. of department posts	27.89 ± 28.108 (0-162)
Total No. of academic and professional posts	9.59 ± 22.767 (0-175)
Total No. of social posts	21.21 ± 20.847 (0-107)
Total No. of other posts	21.16 ± 27.808 (0-175)
Instagram engagement score	9.965 ± 4.443 (1.99-29.71)
Total No. of residents per Doximity	46.55 ± 29.03 (5-128)

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Table 2. *Factors Affecting Total Followers and Instagram Engagement Score by Univariate Analysis*

Total Followers	*P* Value[a]	R^2
Total accounts following	**<.001**	0.223
Total posts	**<.001**	0.326
Education posts	.637	0.003
Department posts	**<.001**	0.456
Academic posts	**.007**	0.079
Social posts	**.002**	0.104
Other posts	**<.001**	0.213
Total No. of residents	**<.001**	0.35
Instagram Engagement Score		
Total accounts following	.348	0.01
Total posts	**.001**	0.111
Education posts	.201	0.019
Department posts	**.001**	0.119
Academic posts	**.011**	0.072
Social posts	.189	0.02
Other posts	**.009**	0.076
Total No. of residents	.396	0.008

[a] Boldface indicates statistically significant ($P < .05$).