Research Letter

Retracted: Assessment and Evaluation of Social Engagement in Dermatology Residency Programs on Instagram: Cross-sectional Study

Chapman Wei[1], MD; Sophie Bernstein[2], BA; Nagasai Adusumilli[3], MBA; Mark Marchitto[4], MD; Frank Chen[5], MD; Anand Rajpara[6], MD

[1]Department of Medicine, Staten Island University Hospital, Staten Island, NY, United States
[2]University of Missouri-Kansas City School of Medicine, Kansas City, MO, United States
[3]Department of Dermatology, The George Washington School of Medicine and Health Sciences, Washington, DC, United States
[4]Department of Dermatology, Johns Hopkins University School of Medicine, Baltimore, MD, United States
[5]Department of Anesthesiology and Critical Care Medicine, Perelman School of Medicine, University of Pennsylvania, Philadelphia, NY, United States
[6]Division of Dermatology, University of Kansas Medical Center, Kansas City, KS, United States

Corresponding Author:
Chapman Wei, MD
Department of Medicine
Staten Island University Hospital
475 Seaview Avenue
Staten Island, NY, 10305
United States
Phone: 1 7182268855
Email: chapman.wei@gmail.com

Related Article:
Do not cite this article - this article has been retracted.Retraction notice: https://derma.jmir.org/2026/1/e106666

Abstract

Background: Without traditional in-person experiences due to COVID-19, dermatology residency applicants and programs had to search for new ways to get to know one another. Thus, many programs created or enhanced their social media accounts, specifically Instagram, providing an avenue for applicants. The Instagram Engagement Score (IES) is a tool that quantifies an Instagram account's engagement.

Objective: We assessed the factors that influence a dermatology residency program Instagram account's total followers count and IES.

Methods: Accreditation Council of Graduate Medical Education-accredited dermatology residency programs in the United States were identified and evaluated on 3/6/2021-3/7/2021. Posts were categorized into educational, departmental, academic and professional, social, or other posts.

Results: 78 residency programs have Instagram accounts. 69 accounts were active, or posting after November 2020. Other than posts, Instagram Stories was used most frequently (51%). 60 accounts opened in 2020. University of Miami had the most followers (N=2260) while University of Kansas had the highest IES (IES=23.76). Program location and affiliation did not affect total followers or IES. Utilizing Instagram TV (p=0.019) significantly increased total followers, but not IES. Using linear correlation, total posts and departmental posts correlated with increased total follower count (p<0.001, p=0.018 respectively) and IES (p<0.001, p=0.008 respectively).

Conclusions: Instagram is a valuable platform for a dermatology residency program's self-promotion and recruitment following COVID-19. We recommend dermatology residency programs to open an Instagram account and make more posts, especially departmental content.

(JMIR Dermatol 2021;4(2):e32105) doi: 10.2196/32105

XSL•FO
RenderX

KEYWORDS

Instagram; social media; dermatology residency; Instagram engagement score; residency recruitment; medical education

The majority of dermatology residency applicants could not complete away rotations or in-person interviews during the 2021 match cycle due to the COVID-19 pandemic [1]. Without these traditional in-person experiences, applicants needed new ways to get to know one another and learn about programs. Thus, many programs created or enhanced their social media accounts, specifically Instagram, providing an avenue for students to learn about their specific program [2]. By utilizing Instagram, students can be updated on departmental information and the program's overall culture. In a survey study by Steel et al [3], 73% of respondents followed a plastics surgery residency social media account, with 86% using Instagram.

The Instagram engagement score (IES) is a tool that quantifies an Instagram account's engagement [4]. It is the rate of the total number of likes and comments per the number of followers [4]. This study assessed the factors that influence the total follower count and IES of dermatology residency programs' Instagram accounts.

Dermatology residency programs accredited by the Accreditation Council of Graduate Medical Education (ACGME) were identified using the ACGME Directory. Dermatology residency programs with Instagram accounts were identified and evaluated on March 6-7, 2021. Table 1 displays the evaluated variables. Posts were categorized as educational, departmental, academic and professional, social, or other. Univariate and multivariate analyses were performed (Table 2). Three authors independently collected data and resolved any discrepancies unanimously.

Of 145 programs, 78 (53.8%) had Instagram accounts, with 69 (88%) accounts that were active or posted content after November 2020. Other than posts, Instagram Stories Highlights was used most frequently (n=40, 51.3%). Most accounts (n=60) were created in 2020. The average total followers, total accounts following, and IES were 567.4 (SD 289.8), 186.5 (SD 251.1), and 9.06 (SD 3.4), respectively. The University of Miami had the most followers (n=2260) and the University of Kansas had the highest IES (IES=23.76). Program location and affiliation did not affect total followers or IES. Being top 10 on Doximity in terms of reputation (mean 870.9, SD 45.1 vs mean 537.5, SD 286.5; P=.003) and utilizing Instagram TV (mean 701.5, SD 429.0 vs mean 524.2, SD 215.9; P=.02) significantly increased total followers, but not IES.

Multivariate regression analyses showed that total accounts following (P<.001), account age (P<.001), and top 10 status on Doximity (P=.01) strongly correlated with a greater number of total followers (R^2=0.75) (Table 2). Similarly, total followers (P<.001) and account age (P=.04) were moderately correlated with a greater IES (R^2=0.42).

Instagram is a valuable platform for dermatology residency programs' self-promotion and recruitment activities following COVID-19. Relative to Twitter and Facebook, Instagram is the ideal social media platform for recruitment because it offers the least amount of negative emotional content while providing positive entertainment, social interaction, and quick information [5]. Thus, dermatology residency programs can easily interact with potential applicants through their posts.

XSL•FO
RenderX

Table 1. Characteristics of dermatology residency programs' Instagram accounts (N=78).

Characteristics	Value
Categorical variables, n (%)	
Active (posts more recent than November 2020)	69 (88.5)
Instagram Stories Highlights (photos or videos up to 15 seconds in length that are featured on the profile permanently)	40 (51.3)
Instagram Reels (15-30–second videos that can incorporate music or special effects)	3 (3.8)
Instagram TV (long-form videos up to 60 minutes in length)	19 (24.4)
Location, n (%)	
East North Central (IL, IN, MI, OH, WI)	17 (21.8)
East South Central (AL, KY, MS, TN)	4 (5.1)
Mid-Atlantic (NJ, NY, PA)	9 (11.5)
Mountain (AZ, CO, ID, MT, NM, NV, UT, WY)	2 (2.6)
New England (CT, MA, ME, NH, RI, VT)	6 (7.7)
Pacific (AK, CA, HI, OR, WA)	8 (10.3)
South Atlantic (DC, DE, FL, GA, MD, NC, SC, VA, WV)	17 (21.8)
West North Central (IA, KS, MN, MO, ND, NE, SD)	8 (10.3)
West South Central (AR, LA, OK, TX)	7 (9.0)
Territory (PR)	0 (0)
Program affiliation, n (%)	
Community	3 (3.8)
Community with university affiliation	10 (12.8)
University	65 (83.3)
Military	0 (0)
Continuous variables, mean (SD); range	
Account age (days) (as of March 07, 2021)	346.8 (396.7); 6-2471
Total followers[a]	567.4 (289.8); 81-2260
Total accounts following	186.5 (251.1); 3-2045
Total posts	51.7 (57.0); 2-263
Number of education posts	3.1 (5.5); 0-25
Number of departmental posts	29.8 (37.1); 2-191
Number of academic and professional posts	7.8 (10.8); 0-50
Number of social posts	7.7 (8.6); 0-37
Number of other posts	3.2 (5.5); 0-26
Instagram engagement score	9.06 (3.4); 2.8-23.8

[a]Outcome of interest.

XSL•FO
RenderX

Table 2. Univariate and multivariate linear regression results: total followers or Instagram engagement score gained relative to study variables ($P<.05$ was considered statistically significant).

Variable	Univariate		Multivariate	
	P value	R^2	*P* value	R^2
Total followers				0.749
Account age	<.001	0.208	.01	
Total accounts following	.002	0.120	<.001	
Total posts	<.001	0.366	.87	
Educational posts	.06	0.044	.86	
Departmental posts	<.001	0.430	.90	
Academic posts	<.001	0.239	.86	
Social posts	.03	0.060	.86	
Other posts	.01	0.084	.77	
Active (posts more recent than November 2020)	.08	N/A	.68	
Instagram Stories Highlights	.14	N/A	.66	
Instagram Reels	.64	N/A	.79	
Instagram TV	.02	N/A	.35	
Doximity (top 10 reputation-wise)	.003	N/A	.01	
Program location	.54	N/A	.30	
Program affiliation	.58	N/A	.48	
Instagram engagement score				0.418
Account age	.44	0.008	.04	
Total followers	<.001	0.258	<.001	
Total accounts following	.16	0.026	.49	
Total posts	.02	0.071	.61	
Educational posts	.85	0.000	.60	
Departmental posts	.008	0.089	.60	
Academic posts	.07	0.043	.61	
Social posts	.27	0.016	.62	
Other posts	.28	0.016	.65	
Active (posts more recent than November 2020)	.30	N/A	.50	
Instagram Stories Highlights	.09	N/A	.28	
Instagram Reels	.90	N/A	.55	
Instagram TV	.51	N/A	.12	
Doximity (top 10 reputation-wise)	.32	N/A	.16	
Program location	.94	N/A	.69	
Program affiliation	.35	N/A	.83	

We found several modifiable factors that may increase a program's IES. Programs can indirectly increase their IES by following more accounts to increase the chances of likes and comments. In addition, programs should start utilizing tools like Instagram Stories Highlights, Instagram TV, and Instagram Reels.

This study has several limitations. The data were collected from only one social media platform because Instagram content was associated with more positive emotions compared to Twitter and Facebook, which is essential for marketing and recruitment [5]. This study is cross-sectional in design, which means the information presented may change over time.

XSL•FO
RenderX

Conflicts of Interest

None declared.

References

1. Kearns DG, Chat VS, Uppal S, Wu JJ. Applying to dermatology residency during the COVID-19 pandemic. J Am Acad Dermatol. Oct 2020;83(4):1214-1215. [FREE Full text] [doi: 10.1016/j.jaad.2020.07.011] [Medline: 32652192]
2. Schwartzman G, Qureshi A, Friedman AJ. Utilization of Instagram by dermatology residency programs in the era of COVID-19. J Am Acad Dermatol. Jul 2021;85(1):204-206. [FREE Full text] [doi: 10.1016/j.jaad.2021.03.078] [Medline: 33811936]
3. Steele TN, Galarza-Paez L, Aguilo-Seara G, David LR. Social media impact in the Match: A survey of current trends in the United States. Arch Plast Surg. Jan 2021;48(1):107-113. [FREE Full text] [doi: 10.5999/aps.2020.00836] [Medline: 33503753]
4. Roach A. Instagram Engagement: What It Is And How To Improve It. Oberlo. 2020. URL: https://www.oberlo.com/blog/instagram-engagement-improve [accessed 2021-03-07]
5. Voorveld HAM, van Noort G, Muntinga DG, Bronner F. Engagement with Social Media and Social Media Advertising: The Differentiating Role of Platform Type. Journal of Advertising. Feb 13, 2018;47(1):38-54. [doi: 10.1080/00913367.2017.1405754]

Abbreviations

IES: Instagram engagement score

Edited by R Dellavalle, T Sivesind; submitted 14.Jul.2021; peer-reviewed by A Gu, T Quan; comments to author 24.Jul.2021; revised version received 28.Jul.2021; accepted 28.Jul.2021; published 26.Aug.2021

Please cite as:
Wei C, Bernstein S, Adusumilli N, Marchitto M, Chen F, Rajpara A
Retracted: Assessment and Evaluation of Social Engagement in Dermatology Residency Programs on Instagram: Cross-sectional Study
JMIR Dermatol 2021;4(2):e32105
URL: https://derma.jmir.org/2021/2/e32105
doi: 10.2196/32105
PMID: 37632856

©Chapman Wei, Sophie Bernstein, Nagasai Adusumilli, Mark Marchitto, Frank Chen, Anand Rajpara. Originally published in JMIR Dermatology (http://derma.jmir.org), 26.Aug.2021. This is an open-access article distributed under the terms of the Creative Commons Attribution License (https://creativecommons.org/licenses/by/4.0/), which permits unrestricted use, distribution, and reproduction in any medium, provided the original work, first published in JMIR Dermatology Research, is properly cited. The complete bibliographic information, a link to the original publication on http://derma.jmir.org, as well as this copyright and license information must be included.

XSL•FO
RenderX