

Instagram utilization by dermatology journals in the COVID-19 era

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To the Editor:

The COVID-19 pandemic has strengthened an interest in utilizing social media (SoMe) to engage and educate the public [1-6]. Social media (SoMe), a term introduced to the medical lexicon by Liakos et al, refers to an array of virtual platforms used to improve information sharing [6]. Dermatology residency programs have taken advantage of this trend in their recruitment of residency candidates and have increased utilization of Instagram by nearly 700% with dozens of programs joining the platform in recent months [1]. Contrastingly, dermatology journals have not engaged with social media in a similar manner.

A list of dermatology journals with the highest impact factors was obtained using a Google Scholar Metrics search that assessed each journal's h5-index and h5-median values. The top ten dermatology journals were identified and organized in descending order of overall impact factor (**Table 1**). The Instagram application and dermatology journal websites were used to identify journals with a social media presence. Instagram was selected as the SoMe platform of choice because it is the most widely accessed, image-based social media platform with over one billion monthly active users worldwide. Data was collected in April 2021.

To assess variations in Instagram activity by dermatology journals, the number of accounts and posts made between January 2017 and April 2021 was determined. To characterize each journal's

Instagram engagement, the top ten posts receiving the most "likes" and comments on each journal's Instagram page were manually identified. Posts with the most engagement were categorized into one of 5 groups relating to: case presentations, educational assessments, video demonstrations, advertisements, and other.

Of the top ten dermatology journals, only two—the *Journal of the American Academy of Dermatology* (@jaadjournals) and the *British Journal of Dermatology* (@brjdermatology)—had an associated Instagram account. Instagram accounts for both journals were created prior to the COVID-19 pandemic. Of the 10 @jaadjournals posts receiving the most engagement, 9 were case presentations or research abstracts, and one was a video demonstration of a punch biopsy. The @jaadjournals post that received the most engagement discussed a series of patients who developed inflammatory reactions to facial dermal hyaluronic acid following COVID-19 vaccination. Of the 10 @brjdermatology posts receiving the most engagement, 7 were case presentations or research abstracts and three were educational assessments. Similarly, the @brjdermatology post that received the most likes and comments presented a patient with oral vesiculobullous lesions as an early sign of COVID-19 infection.

When comparing journal activity with residency program activity, 62 of 136 accredited dermatology

Table 1. A list of the top ten highest impact factor dermatology journals organized in descending order and associated Instagram accounts, if applicable (yes/no). Data were obtained using a Google Scholar metrics search that assessed each journal’s h5-index and h5-median values.

Publication	h5-index via Google Scholar metrics	h5-median via Google Scholar metrics	Associated Instagram account (yes/no)
<i>Journal of the American Academy of Dermatology</i>	83	108	Yes (@jaadjournals)
<i>British Journal of Dermatology</i>	68	99	Yes (@brjdermatology)
<i>Journal of Investigative Dermatology</i>	67	93	No
<i>Journal of the European Academy of Dermatology and Venereology</i>	60	80	No
<i>JAMA Dermatology</i>	57	78	No
<i>Acta Dermato-Venereologica</i>	43	52	No
<i>Experimental Dermatology</i>	41	53	No
<i>Journal of Dermatological Science</i>	39	51	No
<i>American Journal of Clinical Dermatology</i>	38	48	No
<i>Clinics in Dermatology</i>	37	51	No

residency programs listed on the Electronic Residency Application Service (ERAS) can be found on Instagram, with 48 (77%) programs joining Instagram in the COVID-19 era [1]. In contrast, no top 10 dermatology journal has joined Instagram since 2019 (Figure 1). This finding is similar to a 2014 report that found no dermatology journals or professional organizations on Instagram [3]. Although few dermatology journals from the list of the top ten highest impact factor dermatology journals have an Instagram presence, more posts were made by the two preexisting accounts from January 2020 to April 2021 (564 total posts) than all prior years combined, suggesting increased use of Instagram in the COVID-19 era (Figure 2). Taken together, our analysis suggests there has been a marginal increase in Instagram utilization by dermatology journals over the past 7 years.

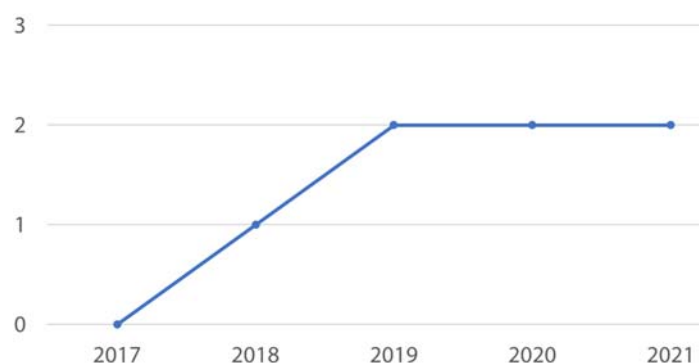


Figure 1. The number of Instagram accounts associated with top ten dermatology journals created over time.

Our analysis of posts that received the most engagement point toward case presentations and educational assessments, particularly those related to the COVID-19 pandemic and its impact on patients (Figure 3). We propose that dermatology journals interested in establishing a social media presence or boosting online engagement and readership via Instagram should consider posts that are culturally relevant case presentations and educational materials. In contrast, advertisement-focused posts received the least engagement. Of journals associated with highest impact factor, dermatology journals identified to have the highest (@jaadjournals) and second highest impact factor (@brjdermatology) were the only dermatology journals with an associated Instagram account, suggesting that a relationship may exist between a dermatology journal’s presence and activity on

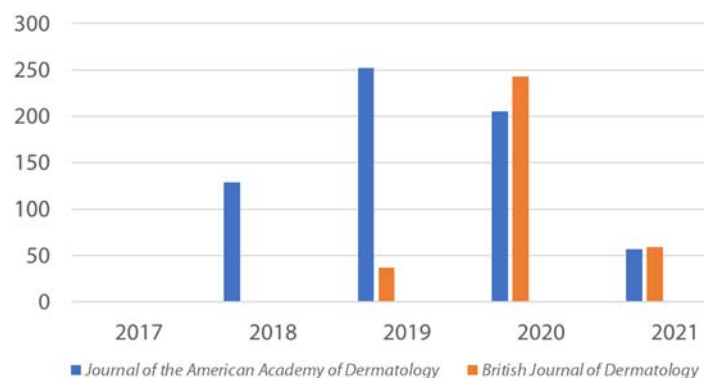
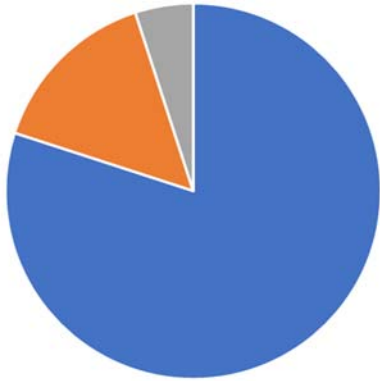


Figure 2. The number of posts made by top ten dermatology journal Instagram accounts over time.



■ Case presentations ■ Educational assessments ■ Video demonstration

Figure 3. The type of posts made by dermatology journal Instagram accounts associated with the most user engagement determined via total number of likes and comments garnered per Instagram post. 80% of posts made by dermatology journal-associated Instagram accounts receiving the most user engagement were case presentations, while 15% and 5% of posts were educational assessments and video demonstrations, respectively.

Instagram and SoMe, and its overall perceived impact.

Despite marginally increased use of Instagram by top ten dermatology journals, other dermatology journals, such as the *Dermatology Online Journal* (@dermjournal), have previously established Instagram presences and regularly engage with the platform. Importantly, a recent study exploring the activity of the @dermjournal Instagram account found that utilization of social media platforms like Instagram can lead to increased exposure of peer-reviewed medical information and can result in increased direct accession to peer-reviewed articles

[6]. Our analysis benefitted from the public use of the Instagram application and dermatology journal websites to identify Instagram journals on Instagram. Limitations of this analysis include the short duration of evaluation and examination of a limited number of dermatology journals associated with highest impact factor.

Social media has tremendous potential to provide new and effective avenues for dermatology learning, teaching, and practice. Furthermore, it can offer dermatology journals a unique opportunity to engage their audience directly, broaden their virtual influence, and cultivate public interest in dermatology while increasing engagement with peer-reviewed research. Despite increased use of Instagram by preexisting dermatology journals during the COVID-19 era, our results demonstrate that this activity is not comparable to social media use by other dermatology organizations and is overall sparse. Although social media continues to increase in prevalence, dermatology journals are underutilizing these valuable resources. We encourage dermatology journals to consider expanding their social media use to enjoy its numerous benefits and keep pace with the forefront of societal trends, especially in the context of the COVID-19 pandemic and the new virtual frontier it has spurred.

Potential conflicts of interest

The authors declare no conflicts of interest.

References

- 1 Schwartzman G, Qureshi A, Friedman AJ, Utilization of Instagram by dermatology residency programs in the era of COVID-19. *J Am Acad Dermatol.* 2021; 85:204-206. [PMID: 3381193].
- 2 Patel RR, Hill MK, Smith MK, Seeker P, Dellavalle RP. An updated assessment of social media usage by dermatology journals and organizations. *Dermatol Online J.* 2018; 24:13030/qt3jr646v0. [PMID: 29630149].
- 3 Karimkhani C, Connett J, Boyers L, Quest T, Dellavalle RP. Dermatology on Instagram. *Dermatol Online J.* 2014; 20:13030/qt71g178w9. [PMID: 25046455].
- 4 Chen JY, Gardner JM, Chen SC, McMichael JR. Instagram for dermatology education. *J Am Acad Dermatol.* 2020;83:1175-1176. [PMID: 32035941].
- 5 Sierro TJ, Young PM, Kassabian SK, Wu KK, Armstrong AW. Dermatologists in social media: A study on top influencers, posts, and user engagement. *J Am Acad Dermatol.* 2020;83:1452-1455. [PMID: 32151630].
- 6 Liakos W, Burrall BA, Hsu DK, Cohen PR. Social media (SoMe) enhances exposure of dermatology articles. *Dermatol Online J.* 2021;27(7). [PMID: 34391326].