

Psoriasis on Social Media: Analysis of Content, Authorship and Accuracy

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Background

- Patients are often influenced by the information they consume via social media, with 45% reporting that social media influences their medical decision-making.
- Unfortunately the health information on social media is unregulated and therefore variable in reliability.
- Common skin conditions such as psoriasis are prevalent topics of online discussion. Previous studies have analyzed psoriasis content on Youtube exclusively, but there have not been comprehensive studies across multiple social media platforms.

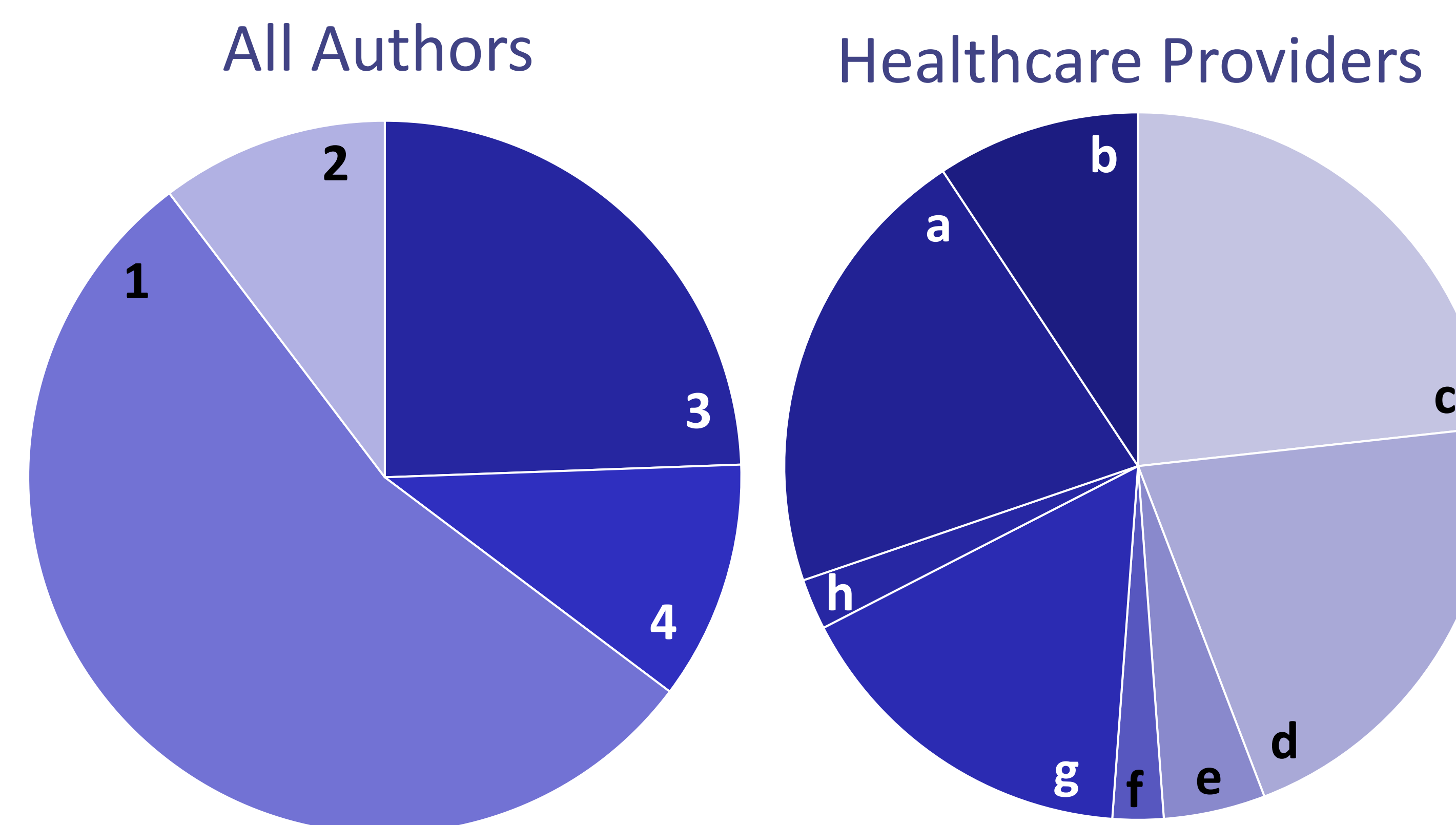
Study Objective

In our study, we characterize the social media landscape of psoriasis by analyzing the top patient-facing content across six social media platforms for content, authorship and accuracy.

Methods

- We analyzed a total of **405 posts** across 6 major social media platforms: Facebook, Instagram, Reddit, Twitter, Youtube, and Tiktok
- We applied the search term “psoriasis” uniformly and analyzed content of the top posts and/or videos in March 2021.
- A standardized coding system was created and used for data abstraction. We classified posts by:
 - **Author** (healthcare professional, personal, business, professional organization)
 - **Content** (education, promotional, patient experience, entertainment),
 - **Impact** (views, likes, comments, shares).
 - **Education** posts were further classified into treatment options, disease etiology, management, or diagnosis.
- Three authors independently rated **accuracy** of educational posts according to the AAD’s psoriasis patient education resources. Interrater-reliability was calculated using Cohen’s kappa.

Figure 1. Authors of Social Media Posts



There is a variety of authors of psoriasis-related social media posts. The legend for **all authors**: 1 = personal/patient, 2 = professional org, 3 = business/industry, 4 = healthcare provider. The legend for **healthcare providers** only: a= naturopathic doctor, b= hospital organization, c= non-board-certified dermatologist, d= board certified dermatologist, e= international dermatologist, f= resident, g= esthetician, h= international physician.

Table 1. Social Media Posts by Content Area

Social Media Platform	Content Area (n, %)			
	Educational	Self/Product promotion	Patient Experience	Entertainment
Instagram	11 (11%)	55 (55%)	33 (33%)	1 (1%)
TikTok	33 (33%)	11 (11%)	29 (29%)	27 (27%)
Facebook	24 (60%)	3 (7.5%)	10 (25%)	3 (7.5%)
Reddit	4 (8%)	1 (2%)	33 (66%)	12 (24%)
Twitter	33 (33%)	52 (52%)	13 (13%)	2 (2%)
YouTube	4 (27%)	1 (6%)	4 (27%)	6 (40%)

This table depicts the relative amount (n, %) of posts in each content area across all six social media platforms under investigation. Posts were categorized as one of the following content areas based on their principal topic of discussion: education, self/product promotion, patient experience, or entertainment.

Results

- Content was primarily generated by patients on personal accounts (53%) while posts by board-certified dermatologists were minimal (2.5%).
- Among healthcare providers, board-certified dermatologists generated the most social media posts (23.2%).
- Facebook, Twitter, and TikTok are the predominant spaces for education content, composing 34%, 33%, and 33% respectively of total content on each individual platform.
- Among educational materials, lifestyle modifications and natural remedies composed 50% of videos discussing treatment options. Notably, there was a lack of granularity regarding evidence-based treatment options (ie, biologics vs. topicals).
- Accuracy of all educational posts was 54% with high interrater reliability
 - Reddit: 100% accuracy (4/4 posts)
 - Facebook: 63% accuracy (15/24)
 - TikTok: 39% (13/32)
 - Instagram: 36% (4/11)

Discussion

- Currently, the psoriasis social media landscape is dominated by non-educational, patient experience or product-based posts. This is particularly true for Instagram, Reddit and Youtube.
- Only about half of disseminated information is accurate or supported by the AAD patient guidelines.
- Notably, all posts by board-certified dermatologists were accurate. However their voices are in the minority (2.5% all posts).
- Limitations of the study include its conduction during COVID-19 pandemic which may influence volume of social media users and access to dermatologic care.

Conclusion

- We present a comprehensive analysis of patient-facing, psoriasis-related information on social media.
- It is essential that dermatologists be aware of social media trends patients consume in order to more thoroughly inform our patient counseling.
- There’s a need for evidence-based, psoriasis education on social media, a potential space for increased involvement by board-certified dermatologists.