

Tips, Trends, and Truths: A Study of Psoriasis Treatment Content on TikTok

Sabrina Khan BS,^a Rasika Reddy BA,^b Nicole Maynard BS,^a Caterina Zagana-Prizio BS,^c Manan Mehta BS,^a Danielle Yee MD,^a Samiya Khan BS,^d April W. Armstrong MD MPH^a

^aKeck School of Medicine, University of Southern California, Los Angeles, CA

^bUniversity of Texas Southwestern Medical Center, Dallas, TX

^cUniversity of Colorado School of Medicine, Aurora, CO

^dLong School of Medicine, San Antonio, TX

ABSTRACT

Introduction: With more than two billion downloads since its launch, TikTok is the fastest-growing video-sharing platform in the world. Many people turn to TikTok for dermatologic medical information. However, there is limited data about psoriasis and psoriasis treatment content on this social media platform.

Objective: To compare the viewer engagement, content quality, and viewer experience of psoriasis treatment TikTok videos between physicians and non-physicians.

Methods: We searched the terms “psoriasis” and “psoriasis treatment” on TikTok. Video characteristics were collected. Content quality was evaluated using DISCERN. Viewer experience was assessed using the AVA.

Results: Viewer engagement did not significantly differ between physicians and non-physician content creators ($0.033 \pm .005$ vs $0.047 \pm .001$, $P=0.066$). Compared to non-physicians, physicians created videos of higher quality (DISCERN: $1.76 \pm .058$ vs $1.44 \pm .032$, $P<0.001$) and of greater viewer experience (AVA: $2.55 \pm .183$ vs $1.96 \pm .081$, $P=0.001$). However, there is room for improvement in terms of creating videos of higher quality by both physicians and non-physicians.

Conclusion: TikTok can be a powerful tool to promote health literacy and dispel misinformation. Dermatologists may consider focusing their efforts on creating comprehensive educational content and incorporating trending features to reach a wider audience.

J Drugs Dermatol. 2024;23(2):e67-69. doi:10.36849/JDD.7050e

INTRODUCTION

Social media is a popular source of medical information.¹ Approximately 45% of individuals report that social media plays a role in their decision to seek medical care from a healthcare provider.² TikTok is a video-based application with more than two billion downloads since 2016, making it the fastest growing social media platform in the world.¹ A recent study found psoriasis to be among one of the most viewed dermatologic diseases on TikTok.³ However, there is limited data about psoriasis treatment content on this social media platform. Given TikTok's increasing popularity, influence on health behaviors, and high viewership of psoriasis videos, it is necessary to characterize psoriasis content on this platform. The objective of this study is to compare the viewer engagement, quality, and viewer experience of TikTok videos relating to psoriasis and psoriasis treatment between physicians and non-physicians.

We conducted a cross-sectional analysis by performing a TikTok search of the terms *psoriasis* and *psoriasis treatment*. The top 120 videos that met the inclusion criteria were included in the

analysis. Videos were included if they were related to psoriasis treatment, contained text or audio, and were in English. Videos included in the analysis were uploaded between March 28, 2020, and March 30, 2022. Viewer engagement was assessed using the following ratio: (number of comments + likes)/views. Content quality was evaluated utilizing the validated DISCERN instrument, a tool that analyzes consumer health information using a scale of one extensive shortcomings to five minimal shortcomings.⁴ The Armstrong Viewer Assessment (AVA) assessed viewer experience using a scale of zero=poor to four=very good.⁵ Content quality and viewer experience were evaluated by two independent raters. Two-tailed t-tests were used to compare mean DISCERN and AVA scores between physician and non-physician content creators. The threshold for significance was set at 0.05.

The top 120 psoriasis videos had 94,478,771 views, 4,433,402 comments, and 40,137 comments (Table 1). Videos were created by non-physicians (61.7%), physicians (21.7%), and private, skincare companies (16.7%; Table 1).

TABLE 1.

Characteristics of Popular Psoriasis Content on TikTok							
	No. of Videos (%)	Mean No. of likes	Mean No. of comments	Mean No. of views	Mean Viewer Engagement Ratio	Mean DISCERN (quality)	Mean AVA
Content Creator							
Individual - Non-Physician	74 (61.7)	49,280	422	554,698	.048±0.003	1.47±0.03	1.92±0.08
Individual - Physician	26 (21.7)	16,188	197	1,725,056	.033±0.005	1.76±0.05	2.55±0.18
Private Company	20 (16.7)	18,286	185	428,982	.041±0.007	1.31±0.03	2.10±0.19
Physician Subspecialty							
Dermatologist	23 (88.5)	18,187	218	1,945,434	.034±.006	1.74±.06	2.65±.19
Family Medicine	1 (3.9)	1,710	53	80,400	.021±NA	1.80±.NA	1.00±NA
Internal Medicine	1 (3.9)	817	44	20,700	.041±.NA	1.71±NA	2.00±NA
Podiatry	1 (3.9)	63	10	5,384	.013±.NA	2.25±NA	2.00±NA
Gender							
Female	80 (66.7)	50,206	423	627,409	.047±.003	1.45±.03	2.02±.09
Male	40 (33.3)	10,421	157	1,107,151	.038±.004	1.62±.04	2.22±.14
Video Type							
Anecdotal Experience	56 (46.7)	58108	500	1365952	.047±.004	1.41±.03	1.81±.08
Educational Content	37 (30.8)	6077	150	134719	.038±.004	1.77±.05	2.45±.17
Product Advertisement	27 (22.5)	35351	242	481514	.046±.007	1.35±.04	2.16±.15

NA; Not Applicable

Viewer engagement did not significantly differ between physicians and non-physician content creators (0.033±.005 vs 0.047±.001, $P=0.066$; Table 2). Compared to non-physicians, physicians created videos of higher quality (DISCERN: 1.76±.058 vs 1.44±.032, $P<0.001$) and greater viewer experience (AVA: 2.55±.183 vs 1.96±.081, $P=0.001$; Table 2). However, there is room for improvement in the creation of high quality videos by both physicians and non-physicians as indicated by a DISCERN score of 1-2.

As individuals continue to seek dermatologic health information on TikTok, high quality and accurate information must be available. Our findings suggest that the overall content quality could be improved by both physicians and non-physicians. Physicians may improve the quality of videos without sacrificing engagement by reviewing the risks and benefits of treatment, discussing mechanisms of action, and encouraging shared decision making. While this study did not assess accuracy, several videos claimed to provide a permanent solution to

psoriasis. Dermatologists may combat misinformation by utilizing the “duet” feature on TikTok to directly respond to inaccuracies. Furthermore, with TikTok’s recent extension of video limits to ten minutes, physician content creators can create thorough educational videos.

In addition to creating more comprehensive content, efforts should also be directed at reaching a wider audience. Although physicians shared videos of superior viewer experience compared to non-physicians, physicians only make up 21.7% of the content creators in the psoriasis space. Increasing the number of dermatologists on TikTok could be a promising initial step. However, it is also important for physicians to increase “virality” to expand viewership.¹ Physicians may do so by incorporating trending TikTok background songs, on-screen text, or wearing a white coat in their videos as these features were found to be included in top dermatologic educational content on TikTok.^{1,6}

This study is limited by the scarcity of board-certified physicians on TikTok. Future research directions may focus on the efficacy of educational TikTok videos in increasing health literacy.

Given TikTok’s increasing popularity, dermatologists should leverage the platform to deliver evidence-based dermatologic content to increase health literacy and dispel misinformation. Dermatologists should focus their efforts on increasing the quality of their videos by creating comprehensive educational

TABLE 2.

Video Characteristics Stratified by Physician vs. Non-Physician Professional Content Creators			
	Physician (n=26)	Non-Physician (n=94)	P-value
Mean Viewer Engagement Ratio	.033±.005	.047 ±.003	0.066
Mean DISCERN	1.76±.058	1.44±.032	<0.001
Mean Armstrong Viewer Assessment	2.55±.183	1.96±.081	0.001

content delivered in a short period of time and encouraging users to have an open dialogue with their physicians. Finally, dermatologists should incorporate trending features to reach a wider audience.

DISCLOSURES

April W. Armstrong has served as a research investigator and/or scientific advisor to AbbVie, Almirall, Arcutis, ASLAN, Beiersdorf, BI, BMS, EPI, Incyte, Leo, UCB, Janssen, Lilly, Nimbus, Novartis, Ortho Dermatologics, Sun, Dermavant, Dermira, Sanofi, Regeneron, Pfizer, and Modmed. Sabrina Khan, Rasika Reddy, Nicole Maynard, Caterina Zagana-Prizio, Manan Mehta, Danielle Yee, and Samiya Khan have no conflicts of interest to disclose.

REFERENCES

1. Zheng DX, Mulligan KM, Scott JF. TikTok and dermatology: An opportunity for public health engagement. *J Am Acad Dermatol*. 2021;85(1):e25-e26. doi:10.1016/j.jaad.2021.02.050
2. PricewaterhouseCoopers. Social media "likes" healthcare: from marketing to social business. https://adindex.ru/files2/access/2013_06/99606_tpc-health-care-social-media-report.pdf. Accessed May 1, 2022.
3. Villa-Ruiz C, Kassamali B, Mazori DR, et al. Overview of TikTok's most viewed dermatologic content and assessment of its reliability. *J Am Acad Dermatol*. 2021;85(1):273-274. doi:10.1016/j.jaad.2020.12.028
4. Charnock D, Shepperd S, Needham G, et al. DISCERN: an instrument for judging the quality of written consumer health information on treatment choices. *J Epidemiol Community Health*. 1999;53(2):105-11. doi:10.1136/jech.53.2.105
5. Chen AY, Azizi B, Borba AJ, Armstrong AW. Rosacea videos on social media: A comparison of accuracy, quality, and viewer engagement. *Dermatol Online J*. 2021;27(2)
6. Kassamali B, Villa-Ruiz C, Mazori DR, Min M. Characterizing top educational TikTok videos by dermatologists in response to "TikTok and dermatology: An opportunity for public health engagement". *J Am Acad Dermatol*. 2021;85(1):e27-e28. doi:10.1016/j.jaad.2021.02.051

AUTHOR CORRESPONDENCE

April Armstrong MD MPH

E-mail:..... armstrongpublication@gmail.com