

Tik Tok versus Instagram Acne Medication Insight: What is our education and perception on acne information on

social media

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Introduction

With TikTok and Instagram increasingly becoming sources of dermatologic education, young users frequently turn to these platforms for acne treatment advice. This study examines the top videos across both platforms for seven acne medications to determine who is producing the content, how educational it is, and whether the portrayed attitudes are positive or negative. Understanding this landscape helps dermatologists address misinformation and better connect with patients online.

Methods

A new TikTok and Instagram account was created (female, early 20s) to avoid algorithm bias. On TikTok, the top 50 videos per search term were analyzed; on Instagram, the top 25 Reels were used. Medications included: Accutane, spironolactone, adapalene, benzoyl peroxide, doxycycline, salicylic acid, and Winlevi. Each video was assessed for creator type, gender, educational content, mention of side effects, tone (positive/negative), and if it showed acne progression.

Clinical Implications

Social media plays a major role in how acne medications are perceived. Dermatologists should consider engaging with platforms like TikTok and Instagram to provide accurate, accessible education. The findings emphasize the need for increased dermatologic presence online, especially for newer medications with limited reputable content.

Medication most spoken by board certified dermatologists on social media : *Benzoyl Peroxide*

Medication	Pearson Chi-Square Value	p-value (2-sided)
Accutane	2.000	0.157
Adapalene	0.488	0.485
Benzoyl Peroxide	8.420	0.004
Doxycycline	1.492	0.222
Salicylic Acid	2.922	0.087
Spironolactone	1.812	0.178

Benzoyl Peroxide was the only acne medication that was statistically significant for more board certified dermatologists posting about it than non board certified dermatologists

Posts about Doxycycline were significantly more negative (42.1%) compared to other acne medications (12.4%; p = 0.002, Fisher's exact test), indicating a distinct difference in public sentiment

Sentiment	Other Medications	Doxycycline	Total
Negative	28 (12.4%)	8 (42.1%)	36 (14.8%)
Positive	197 (87.6%)	11 (57.9%)	208 (85.2%)

A chi-square test found a statistically significant difference in educational framing across medications, $p < 0.001$. **Accutane and Winlevi had the highest proportions of non-educational content (32.9% and 20.5%, respectively), whereas Salicylic Acid and Benzoyl Peroxide were predominantly presented in educational posts.**

A statistically significant difference was observed in educational content between platforms, $\chi^2(1, N = 325) = 5.37, p = 0.020$. **Posts on TikTok were more likely to be non-educational (65.8%) compared to Instagram (34.2%).**

Results

- A total of 325 social media posts were analyzed across TikTok and Instagram for seven acne medications. Posts about Doxycycline were significantly more negative (42.1%) compared to other medications (12.4%), $p = 0.002$ (Fisher's exact test).
- A chi-square test revealed a statistically significant difference in educational framing across medications, $\chi^2(6, N = 325) = 63.87, p < 0.001$.
 - Accutane and Winlevi had the highest proportions of non-educational content (32.9% and 20.5%, respectively), while Salicylic Acid and Benzoyl Peroxide were almost exclusively educational (96% each).
- Additionally, a significant difference was observed between platforms. TikTok posts were more likely to be non-educational (65.8%) compared to Instagram (34.2%), $\chi^2(1, N = 325) = 5.37, p = 0.020$.

Strengths / Limitations

- Small sample size (25–50 videos per medication/platform).
- Potential algorithm bias despite new account creation.
- Lack of demographic viewer data.
- Winlevi content was limited due to its newer market status.

Citations

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