

# YouTube videos as source of patient information for atopic dermatitis topical therapies

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## Background

- Approximately 20% of children worldwide suffer from atopic dermatitis (eczema).<sup>1</sup>
- Patient education plays an important role in the management of patients with atopic dermatitis.<sup>2</sup>
- For safety reasons, doctor visits were canceled, postponed, or conducted virtually during the COVID-19 pandemic.
- Canceled/postponed visits result in less time for questions, leading patients to learn about eczema from other sources such as YouTube.<sup>3</sup>

## Objectives

- Analyze the educational value of YouTube videos discussing topical treatments for atopic dermatitis.

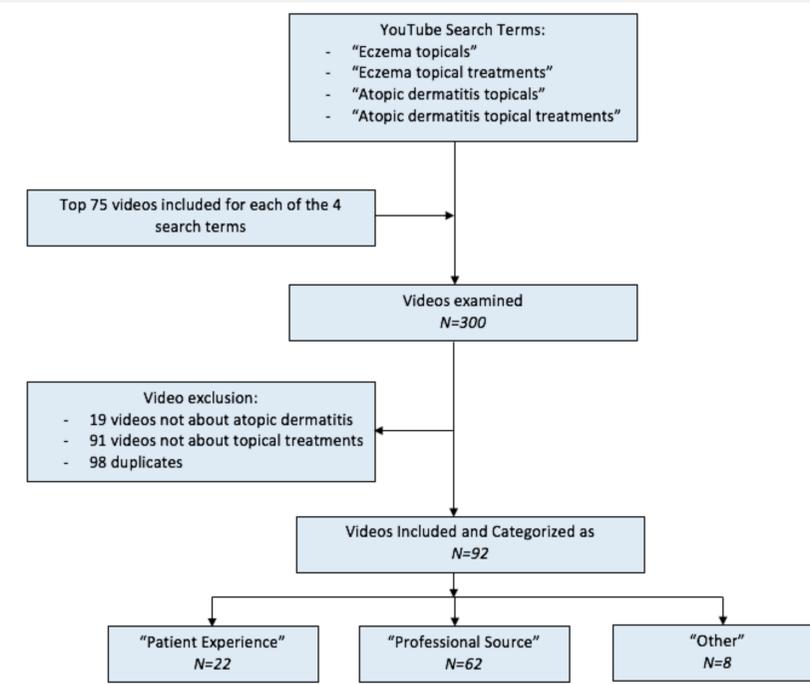
## Methods

- YouTube searches of “eczema topicals,” “eczema topical treatments,” “atopic dermatitis topicals,” and “atopic dermatitis topical treatments” were conducted in July 2020.
- Two authors (A.M. and A.T.) independently examined the top 75 videos from each of the four searches (n=300).
- We defined topical treatments as topical corticosteroids, topical calcineurin inhibitors, crisaborole, emollients, wet wraps, and any prospective treatment topically administered.
- Length, upload year, number of views, likes, dislikes, comments, interaction ratio (IR=sum of likes, dislikes, and comments divided by the number of views), and video content were assessed
- Reliability and quality of the included videos were evaluated using the DISCERN Instrument.<sup>4</sup> A two-sample t-test was utilized for comparing scores between “professional source” and “non-professional source” videos.

Dr. Wu is or has been an investigator, consultant, or speaker for AbbVie, Almirall, Amgen, Arcutis, Aristeia Therapeutics, Boehringer Ingelheim, Bristol-Myers Squibb, Dermavant, Dr. Reddy's Laboratories, Eli Lilly, Galderma, Janssen, LEO Pharma, Mindera, Novartis, Regeneron, Sanofi Genzyme, Solius, Sun Pharmaceutical, UCB, Valeant Pharmaceuticals North America LLC, and Zerigo Health.

## Results

Figure I. YouTube video selection process



- Videos were uploaded in 2020 (n=5), 2019 (N=25), 2018 (N=23), 2017 (N=19), and 2012-2016 (n=20)
- “Patient experience” videos: 23.9% (N=22) of videos
- “Professional source” videos: 67.4% (N=62) of videos
- “Other”: 8.7% (N=8) of videos
- “Patient experience” videos had more views (median views: 6865, interquartile range: 10,307) and higher engagement (median IR: 0.038, interquartile range: 0.022) than “professional source” videos (median views: 1052.5, interquartile range: 10,610.5 and median IR: 0.006, interquartile range: 0.008).
- 20.7% (N=19) videos discussed topical corticosteroid withdrawal, with the majority being (N=16) “patient experiences”

Table I. DISCERN scores for YouTube videos discussing atopic dermatitis topical treatments

Discern question	Non-professional source videos (n=30) <sup>a</sup>	Professional source videos (n=62) <sup>b</sup>	P value <sup>c</sup>
<i>Reliability (1=no, 3=partially, 5=yes)</i>			
1. Are the aims clear?	4.33±1.12	3.86±1.09	0.061
2. Does it achieve its aims?	4.86±0.44	4.67±0.47	0.075
3. Is it relevant?	2.20±0.66	4.81±0.57	<0.0001
4. Is it clear what sources of information were used?	1.17±0.46	2.63±1.77	<0.0001
5. Is it clear when the information used or reported in the video was produced?	1.03±0.18	2.31±1.66	<0.0001
6. Is it balanced and unbiased?	1.40±0.62	4.36±1.17	<0.0001
7. Does it provide details or additional sources of support and information?	2.30±1.26	2.12±1.15	0.497
8. Does it refer to areas of uncertainty?	2.00±1.08	3.15±1.73	0.001
<i>Quality of Information (1=no, 3=partially, 5=yes)</i>			
9. Does it describe how each treatment works?	2.53±1.57	4.02±1.33	<0.0001
10. Does it describe the benefits of each treatment?	3.60±1.77	4.17±1.57	0.125
11. Does it describe the risks of each treatment?	2.97±1.90	3.15±1.86	0.660
12. Does it describe what would happen if no treatment is used?	2.30±1.49	1.83±1.29	0.127
13. Does it describe how the treatment choices affect overall quality of life?	3.90±1.45	2.56±1.58	0.0002
14. Is it clear that there may be more than one possible treatment choice?	2.60±1.57	3.36±1.65	0.041
15. Does it provide support for shared decision-making?	1.43±0.97	3.07±1.64	<0.0001
<i>Overall Rating of Publication (1=serious or extensive shortcomings, 3=potentially important but no serious shortcomings, 5=minimal shortcomings)</i>			
16. Overall quality rating <sup>d</sup>	1.53±0.63	3.92±0.93	<0.0001

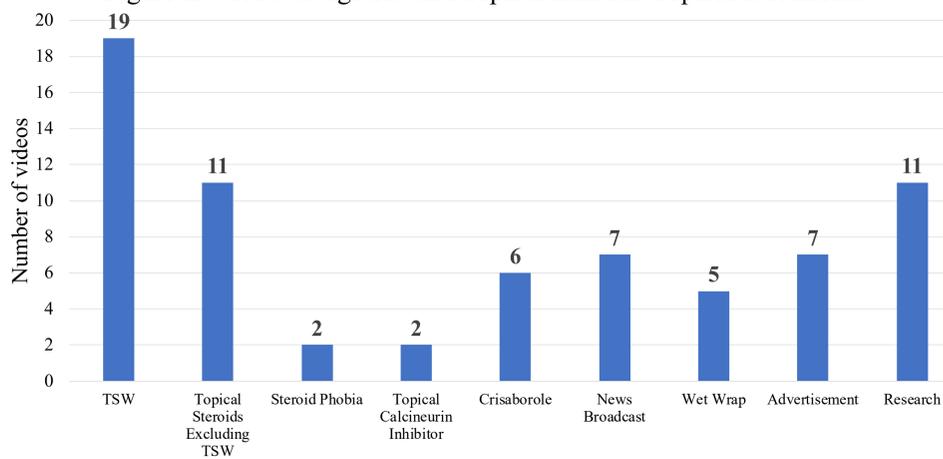
<sup>a</sup>Includes “patient experience” videos (n=22) and “other” videos (n=8)

<sup>b</sup>Three “professional source” videos were removed from YouTube before a DISCERN scores could be assigned

<sup>c</sup>P value calculated using two-sample t test

<sup>d</sup>Based on the answers to all of the above questions, rate the overall quality of the publication as a source of information about treatment questions

Figure II: Video Categories for Atopic Dermatitis Topical Treatments



## Conclusion

- Our results demonstrate preference for patient generated videos over professional source videos, similar to prior studies.<sup>5</sup>
- The majority of videos discussing topical corticosteroid withdrawal were patient generated, which may result in misconceptions about topical corticosteroid safety.
- Studies examining the educational impact of patient generated videos, about topical treatments for eczema, may be of interest to the dermatology community.

## References

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