

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).¹
- Patient education plays an important role in the management of patients with atopic dermatitis.²
- 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.³

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.⁴ 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

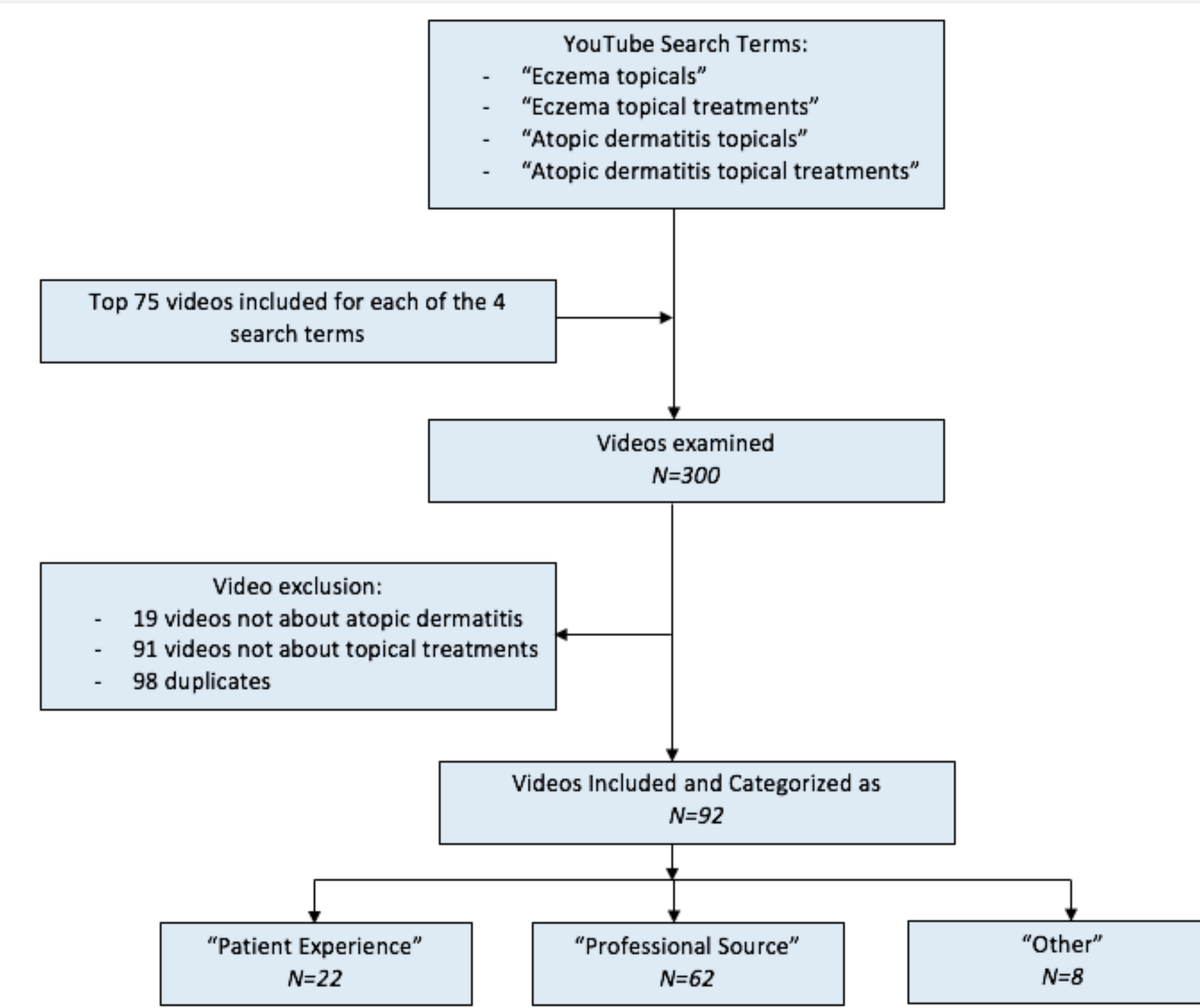
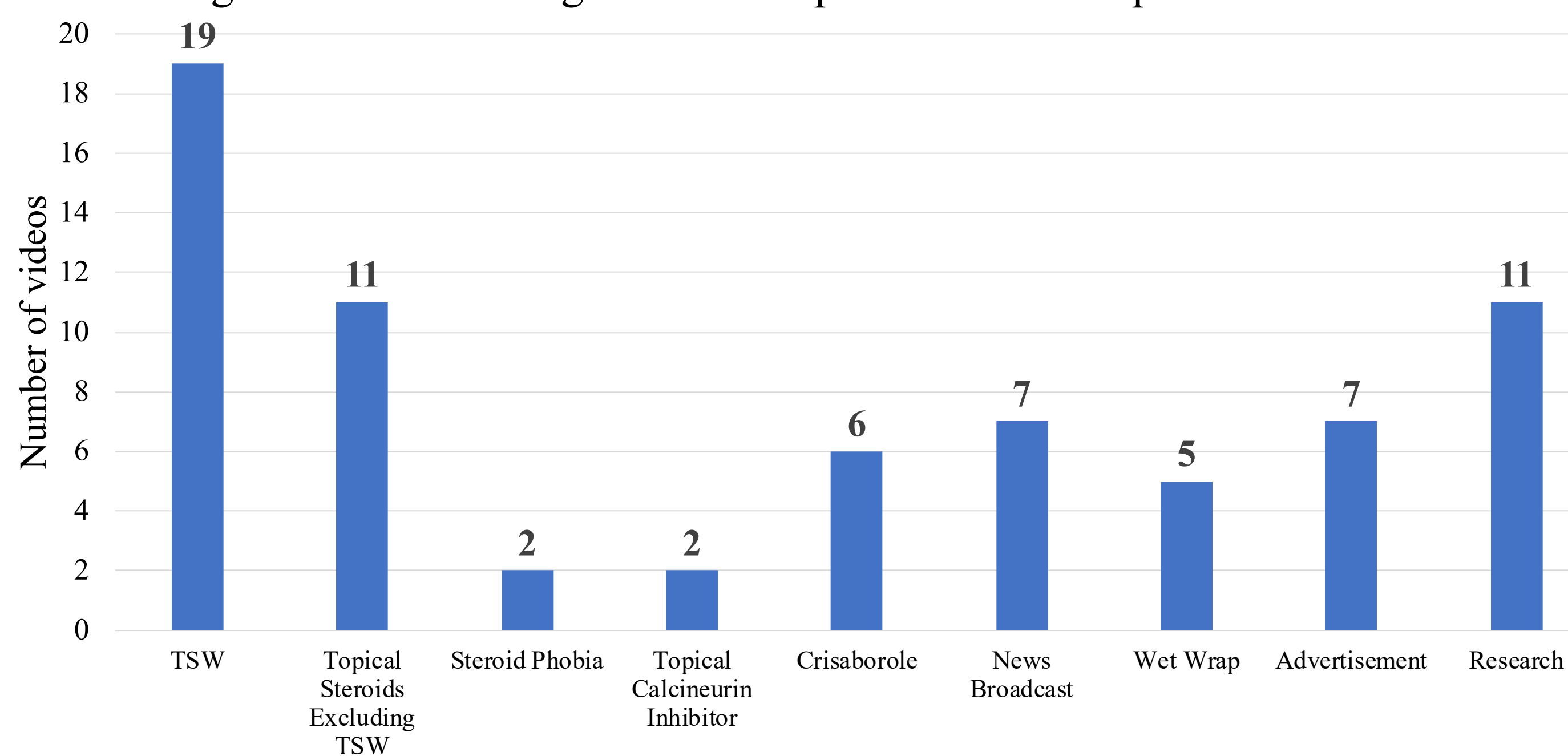


Figure II: Video Categories for Atopic Dermatitis Topical Treatments



- 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) ^a	Professional source videos (n=62) ^b	P value ^c
<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 ^d	1.53±0.63	3.92±0.93	<0.0001

^aIncludes “patient experience” videos (n=22) and “other” videos (n=8)

^bThree “professional source” videos were removed from YouTube before a DISCERN scores could be assigned

^cP value calculated using two-sample t test

^dBased on the answers to all of the above questions, rate the overall quality of the publication as a source of information about treatment questions

Conclusion

- Our results demonstrate preference for patient generated videos over professional source videos, similar to prior studies.⁵
- 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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