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Evaluating Quality and Reliability of Most-Viewed YouTube Videos on Topical Steroid Withdrawal

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INTRODUCTION

Topical corticosteroid withdrawal (TSW) is an adverse response to chronic misuse of topical corticosteroids (TCS) consisting of erythema, scaling, burning, and pruritus after discontinuing TCS. YouTube (www.youtube.com), the most popular video-sharing platform worldwide, is increasingly used by patients as a source of health information.[1] User-generated YouTube content does not undergo review to ensure information accuracy and is susceptible to bias. Therefore, we sought to evaluate the quality and reliability of the top ten most-viewed YouTube videos on TSW using the modified DISCERN[2–4] (mDISCERN) tool and the Global Quality Scale (GQS) (Table 1). The mDISCERN tool[2–4] measures reliability and GQS evaluates the quality and scientific accuracy of videos. A YouTube search was conducted on May 10, 2022, using keywords "topical steroid withdrawal" and the top 10 most viewed videos (average of 189,638 views, SD=229,329) were analyzed (Table 2). Scores for each video were determined by 2 independent viewers and an average was generated for each video. Analyses were conducted using one-way ANOVA, unpaired t-tests, and linear regression.

TABLE 1.

Modified DISCERN Score and GQS Criteria		
Modified DISCERN Score		**GQS Criteria**
Are the aims clear and achieved?	1	Poor quality, poor flow, most information missing, not at all useful for patients
Are reliable sources of information used? (ie, publication cited, speaker is a specialist in TSW)	2	Generally poor quality and flow, some information listed but many important topics missing, of limited use to patients
Is the information presented both balanced and unbiased?	3	Moderate quality, some important information is adequately discussed but others poorly discussed, somewhat useful for patients
Are additional sources of information listed for patient reference?	4	Good quality, good flow, most relevant information is covered, useful for patients
Are areas of uncertainty mentioned?	5	Excellent quality and flow, very useful for patients

For mDISCERN criteria, 1 point is given per criteria met for a possible score between 0-5. For GQS, a score from 1-5 is designated based on parameters outlined

TABLE 2.

Summary of 10 Most Viewed Youtube Videos From Search Of "Topical Steroid Withdrawal" On May 10, 2022								
	Number of Views	**Video Length (seconds)**	**Number of Likes**	**Number of Subscribers**	**Duration on YouTube (months)**	**Video Type**	**DISCERN Score (mean)**	**GQS Score (mean)**
Video 1	744,000	784	14,000	166,000	48	PT +pp	2	2.5
Video 2	440,384	2,394	10,000	248,000	12	PT +pp	1	1
Video 3	212,000	362	--	9,910,000	3	PT	0	1
Video 4	127,000	485	1,000	156	96	Edu	2	2.5
Video 5	81,000	5,988	1,600	81,066	36	Doc	5	4.5
Video 6	77,000	1,018	891	345	96	Edu	2	3
Video 7	69,000	2,220	1,700	1,020	12	Edu	5	5
Video 8	54,000	168	301	22,100	84	Edu	3	4
Video 9	48,000	138	99	2,020	24	PT	0	1
Video 10	44,000	313	1,200	337	3	Doc	4	3.5

For video type, PT= patient testimonial, Edu= educational video, Doc=Documentary, +pp= product promotions

Of these videos, 4 (40%) were patient testimonials, 4 (40%) were educational videos, and 2 (20%) were documentaries. Seventy-five percent (3/4) of patient testimonial videos included product promotions. Fifty percent of videos (5/10) included "Eczema" or "Atopic Dermatitis" in the title. Only 1 video was created by a dermatologist. Cumulative average scores for all videos were 2/5 on the mDISCERN scale and 2.5/5 on the GQS scale. There was a significant difference in mDISCERN scores of educational (M=2.875, SD=1.44; P=0.049) and documentary videos (M=4.50, SD 0.71; P=0.0086) compared to patient testimonials (M=0.75, SD=0.96). There was also a significant difference in GQS scores of educational (M=3.625, SD=1.109; P=0.0152) and documentary videos (M=4.00, SD=0.71, P=0.0149) compared to patient testimonials (M=1.375, SD=0.75). There was no difference found in GQS (P=0.694) or mDISCERN scores (P=0.22) of educational and documentary videos. Video type did not correlate with number of views. There was no correlation found between mDISCERN or GQS scores and length of video, duration on YouTube, or number of views, subscribers, or likes.

We found that the 10 most viewed YouTube videos on TSW had overall low reliability and quality. An average mDISCERN of 2/5 indicates poor reliability and extensive shortcomings. On the GQS scale, 2.5/5 suggests poor to moderate quality of videos, missing discussion of important topics, and limited patient utility. Patient testimonials had poorest quality and reliability of all video types; anecdotal information provided in these videos tended to be incomplete and not useful for patients seeking education on TSW. There is a wide viewership of YouTube videos, therefore, the information presented in videos on TSW has significant potential to influence patient knowledge and behavior. For example, unreliable information may contribute to fear of TCS and dissuade use in patients with primary skin diseases that may benefit. Given the variable accuracy of online content, patients should request guidance from medical providers on appraising information quality and reliability. Dermatologists should provide alternative evidence-based resources about TSW to patients, both in practice and in the online space including YouTube.

DISCLOSURE

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