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Commentary

Dermatology on YouTube

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Abstract

YouTube, reaches upwards of six billion users on a monthly basis and is a unique source of information distribution and communication. Although the influence of YouTube on personal health decision-making is well established, this study assessed the type of content and viewership on a broad scope of dermatology related content on YouTube. Select terms (i.e. dermatology, sun protection, skin cancer, skin cancer awareness, and skin conditions) were searched on YouTube. Overall, the results included 100 videos with over 47 million viewers. Advocacy was the most prevalent content type at 24% of the total search results. These 100 videos were “shared” a total of 101,173 times and have driven 6,325 subscriptions to distinct YouTube user pages. Of the total videos, 35% were uploaded by or featured an MD/DO/PhD in dermatology or other specialty/field, 2% FNP/PA, 1% RN, and 62% other. As one of the most trafficked global sites on the Internet, YouTube is a valuable resource for dermatologists, physicians in other specialties, and the general public to share their dermatology-related content and gain subscribers. However, challenges of accessing and determining evidence-based data remain an issue.

Keywords: YouTube, dermatology, skin cancer, sun protection, skin care, skin conditions, social media

Introduction

YouTube is available in 61 countries across 61 languages and has over one billion unique visitors watching more than six billion hours of video per month [1]. According to the Sandvine Global Internet Phenomena Report, as of late 2013, YouTube accounted for 18.6% of all downstream Internet traffic, second only to Netflix [2]. Based on this, the current and potential impact of YouTube for communication and information distribution is not to be underestimated. YouTube's influence on personal health decision-making has been demonstrated previously [1, 3-6]. YouTube is a site of "participatory culture" in which contributors upload and create the content, which stems from a wide variety of organizations, businesses, and individuals [7]. In 2014, Amir et al investigated the presence of dermatology on Facebook, Twitter, and LinkedIn [8]. Less has been published on the presence of dermatology on YouTube. In 2008, Hossler and Conroy examined YouTube as a source of information on tanning bed use [9]. YouTube has also been shown to have a role in dermatology-related education [10]. What type of information are patients and providers accessing when performing YouTube searches? Given the knowledge that patients rely on the Internet more frequently than their physicians for health care information [1], this study will assess the type of content and viewership on a broad scope of dermatology related content on YouTube.

Methods

Study author (TQ) collected data from March 3rd to March 10th, 2014. Five search terms were selected to measure the presence of dermatology on YouTube. Search terms included: (1) dermatology, (2) sun protection, (3) skin cancer, (4) skin cancer awareness and (5) skin conditions. These were entered into the YouTube search query with the default settings to return "relevant" results and data was collected from all of the videos on the first page of search results [4]. Paid advertising results occurred with one of the five search queries and were omitted from this study.

Content type was qualitatively assessed to determine the content of media that is uploaded to and relevant on YouTube. Quantitative data included number of viewers, number of comments, number of subscriptions driven, and number of shares to determine how YouTube users are using and interacting with dermatology content (data was not always available for shares and subscriptions driven). A secondary assessment also determined if the videos were uploaded by or included a biomedical professional (classified as MD/DO, PhD, PA, FNP, RN) by viewing the video.

Results

Data was collected on the initial search page results for the designated search terms, for a total of 100 videos. Over 47 million viewers had accessed these videos (Table 1). One video was duplicated over two search terms. Using "dermatology" as a search term, the primary type of content was educational (45%), followed by clinical demonstrations by dermatologists (20%). "Sun protection" resulted in advocacy (25%) and advertisements (25%). "Skin cancer awareness" was primarily advocacy (80%) and "skin cancer" resulted in an equal number of educational videos (25%) and complementary and alternative medicine videos (25%). Finally, "skin condition" returned an equal number of videos that were educational (20%), clinical demonstration (20%), and dermatology in current media (designated as news/medical feature/medical themed show) (20%). Overall, advocacy was the most prevalent content type at 24% of the total search results (Figure 1). These 100 videos have been "shared" a total of 101,173 times and have driven 6,325 subscriptions to distinct YouTube user pages. Of the total videos, 35% were uploaded by or featured an MD/DO/PhD in dermatology or other specialty/fields, 2% FNP/PA, 1% RN, and 62% other.

Conclusions

Dermatology content is widely available on YouTube and consists of a diverse mix of content based on specific search terms. The top-viewed videos discovered with these search terms "The Boy Whose Skin Fell Off (Jonny Kennedy) 3/5" and "Dear 16-year-old me" focus on a rare skin disease and cancer survivorship, respectively, and clearly elicit emotional responses in viewers. Universities and physicians are using YouTube to upload educational videos and to demonstrate procedures to the general public. Many groups are using YouTube to advocate for various causes. Personal uploads are used for entertainment and advocacy and can potentially gain millions of views, whereas news features and medical shows upload their dermatology content to YouTube to increase viewership. Finally, dermatology is portrayed in the entertainment industry on medically themed nonfiction shows and late night TV. These uploads are popular and result in "shares" and "subscriptions driven" to gain YouTube followers to specific personal and organizational YouTube Channels.

As one of the most trafficked global sites on the Internet, YouTube is a valuable resource for dermatologists, physicians in other specialties, and the general public to share their dermatology-related content and gain subscribers. The challenges of YouTube and other social media sites as a tool for preventative medicine have been previously discussed [2]. The difficulty in identifying sources and credentials and free availability to upload complicate this problem. For example, when searching "skin cancer," the

fourth most relevant video is entitled “DERMATOLOGISTS HATE THIS VIDEO! (NATURAL SKIN CANCER CURES)” claiming a 100% cure rate for melanoma. This was also the video with the most shares and subscriptions driven, according to the data available. Although the mix of content and availability of educational videos creates a vast resource for providers and the general public, challenges of accessing evidence-based data remain.

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Appendix

Table 1. Dermatology content on YouTube

Search Term	Content Type ^a	%	Viewers	Subscriptions Driven ^b	Shares ^b
“Dermatology” n=20	Educational	45	60594	292	55
	Clinician Demonstration	20	530470	5	11
	Clinical Tool	10	3904	15	0
	Job Description	10	12822	12	1
	Advertising	5	9153	0	0
	Entertainment	5	29390	0	0
	Personal	5	530470	0	0
	Total			1209338	324
“Sun Protection” n=20	Advertising	25	212540	3	1
	Advocacy	25	65636	3	6
	News/Medical Feature/Medical Show	15	22734	7	5
	User Product Review	15	38916	3	0
	Complementary and Alternative Medicine	10	16243	168	12

	Clinician Demonstration	5	31552	85	16
	Entertainment	5	5746	0	0
	Total		393367	269	40
“Skin Cancer Awareness “ n=20	Advocacy	80	6989259	517	33209
	News/Medical Feature/Medical Show	15	4590	0	0
	Educational	5	138	0	0
	Total		6993987	517	33209
“Skin Cancer” n=20	Complementary and Alternative Medicine	25	567625	908	570
	Educational	25	5151682	85	33
	Advocacy	15	7171697	514	33201
	News/Medical Feature/Medical Show	15	18290	-2	31
	Personal	15	248497	784	16
	Clinician Demonstration	5	71149	0	0
	Total		13228940	2289	33851
“Skin Condition” n=20	Clinician Demonstration	20	146095	0	0
	Educational	20	15154	0	0
	News/Medical Feature/Medical Show	20	9683657	9	30
	Personal	15	961852	30	7
	Entertainment	10	26378	0	0
	Advertising	5	2731	0	1
	Job description	0	0	0	0
	Veterinary Medicine	10	8526	2	2
	Total		10844393	41	40
Total			47572170	6325	101173

^aIf ‘content type’ category is not listed then there were zero videos in that category

^bData not consistently available (disabled or not listed)

Table 2. Summary statistics of YouTube dermatology content for the 100 videos analyzed (arranged in decreasing percentage)

Content Type	%
Advocacy	24
Educational	19
News/Medical Feature/Medical Show	13

Clinician Demonstration	10
Advertising	7
Alternative Medicine	7
Personal	7
Entertainment	4
User Product Review	3
Clinical Tool	2
Job Description	2
Veterinary Medicine	2
