

Characterizing Responses to COVID-19 Vaccine Promotion on TikTok

American Journal of Health Promotion
2023, Vol. 37(5) 638–645
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DOI: 10.1177/08901171221141974
journals.sagepub.com/home/ahp



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Abstract

Purpose: The Alabama Department of Public Health (ADPH) sponsored a TikTok contest to improve vaccination rates among young people. This analysis sought to advance understanding of COVID-19 vaccine perceptions among ADPH contestants and TikTok commenters.

Approach: This exploratory content analysis characterized sentiment and imagery in the TikTok videos and comments. Videos were coded by two reviewers and engagement metrics were collected for each video.

Setting: Publicly available TikTok videos entered into ADPH's contest with the hashtags #getvaccinatedAL and #ADPH between July 16 – August 6, 2021.

Participants: ADPH contestants (n = 44) and TikTok comments (n = 502).

Method: A content analysis was conducted; videos were coded by two reviewers and engagement metrics was collected for each video (e.g., reason for vaccination, content, type of vaccination received). Video comments were analyzed using VADER, a lexicon and rule-based sentiment analysis tool).

Results: Of 44 videos tagged with #getvaccinatedAL and #ADPH, 37 were related to the contest. Of the 37 videos, most cited family/friends and civic duty as their reason to get the COVID-19 vaccine. Videos were shared an average of 9 times and viewed 977 times. 70% of videos had comments, ranging from 0-61 (mean 44). Words used most in positively coded comments included, “beautiful,” “smiling face emoji with 3 hearts,” “masks,” and “good.,” whereas words used most in negatively coded comments included “baby,” “me,” “chips,” and “cold.”

Conclusion: Understanding COVID-19 vaccine sentiment expressed on social media platforms like TikTok can be a powerful tool and resource for public health messaging.

Keywords

COVID-19, social media, awareness, strategies, digital data, TikTok, vaccine, COVID-19 vaccine, community, specific settings, adolescents, age specific, specific populations

Purpose

Vaccines against the severe acute respiratory syndrome coronavirus (SARS-CoV-2) that causes COVID-19 are essential for population-level health and safety.¹ Since December 2020, four COVID-19 vaccines have received U.S. Food and Drug Administration (FDA) emergency use authorization to prevent COVID-19 transmission.² Despite these major advancements, twenty percent of eligible U.S. adults remain unvaccinated and rates among minors is higher. Approximately 25% of children \geq 12 years of age and 30% of children $n \geq$ 5 years of age remain unvaccinated.^{3,4} Alabama, a southeastern U.S. state, has one of the lowest rates of vaccinated eligible individuals. Only 52% of the state's population receiving at least one dose of the COVID-19 vaccine, as of August 2022.⁵ Approximately, 36.3% of

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12–17-year-olds and 45.4% of 18–24-year-olds report having received the COVID-19 vaccine.⁶ These rates are lower to comparable to other states like Louisiana, Georgia, Florida, and Mississippi, which have overall vaccination rates of 54%, 56%, 69%, and 53%, respectively.³

A 2020 Alabama community health study surveyed 3700 individuals between the ages of 18 and > 60 on their perceptions of COVID-19 information, testing, and vaccination. Only 39% of the survey respondents indicated that they would receive a COVID-19 vaccine.⁷ Whereas one-third of the survey respondents expressed distrust in government agencies like the Center for Disease Control and Prevention (CDC) and other health agencies.⁷ Budhwani and colleagues (2021) interviewed 28 African American or Black adolescents aged 15–17-year-old in rural Alabama in May 2021⁸ to elucidate sentiments toward the COVID-19 vaccine. They found varying levels of vaccine acceptance.⁸ Participants referenced both the positive and negative sides of each reason, reciting protection of and advice from older family members as reasons to get vaccinated, and rumored misinformation, such as the presence of microchips in the vaccines, as reasons to not receive the COVID-19 vaccine.⁸ These levels of vaccine acceptance are critical to understand since Alabama lags behind of other U.S.' vaccination rates which puts Alabamians at greater risk⁷ especially with new variants, such as Delta, Omicron, or BA.5.⁹

Especially during highly infectious public health emergencies, more researchers are using social media platforms such as Facebook, Instagram, Twitter, and TikTok to capture prevailing attitudes and norms.^{10,11} Analyzing content on social media platforms is quite pertinent since more Americans receive information and especially health information from social media platforms, like Facebook, Instagram, and TikTok.¹² In response to this new trend, the CDC recommends health departments to use social media platforms and challenges¹³ to disseminate public health messaging quickly and effectively. On the CDC's website, "Ways Health Departments Can Help Increase COVID-19 Vaccinations," they showcase health department's social media outreach strategies. For example, in California, the Pasadena Public Health Department created a #VaccinatePasadena challenge for students aged 4–24 to submit artwork or share a TikTok or Instagram video on the "benefits of choosing vaccination, counter harmful myths, and promote an open dialogue about COVID-19 and vaccines."¹⁴

In the summer of 2021, the Alabama Department of Public Health (ADPH) sponsored a TikTok video contest to promote getting the COVID-19 vaccine among Alabama's young people (aged 13 and 29). All contestants were asked to submit a TikTok video showing themselves getting vaccinated or include a creative message explaining, "*This is why I got vaccinated.*" Contestants entered their video by tagging ADPH (@alcovidvaccine) and using the hashtags of #getvaccinatedAL and #ADPH. A panel of judges (i.e., marketing/advertising professionals and ADPH personnel) selected four winners based on creativity, originality, and popularity (such

as the number of likes and shares) and each winner received a \$250 Visa gift card. Our analysis sought to advance our understanding of the COVID-19 vaccine perception among Alabama's Department of Public Health contestants and viewers. The purpose of this exploratory content analysis was to describe the content of TikTok videos entered in the ADPH contest and the videos' associated comments.

Methods

Search Strategy

We conducted a retrospective review of publicly accessible TikTok videos posted with #getvaccinatedAL and #ADPH on the platform during the period of July 16 – August 6, 2021. All videos and comments were extracted on August 7th, 2021, for a total sample of 44 videos. We extracted videos to capture the content, public sentiment, and rationale on why they received the COVID-19 vaccine (Table 1: Codebook). We also captured how TikTok users engaged with the content (i.e., comments) by extracting the first 100 comments per video.

Coding Approach

We used a coding approach previously described.^{10,11,15} In brief, an initial 20 videos on July 27th, 2021, were coded to identify themes (e.g., reason(s) for vaccination, sentiment, content featured in video, type of COVID-19 vaccine received) for the codebook. We then iterated on this approach and re-coded an additional 20 videos to build and refine the codebook. Our codebook consisted of reasons for vaccination, sentiment, video production, sound, content, mention of COVID-19 vaccine, if the CDC banner was featured, and not related (Table 1: Codebook). Using Microsoft Excel (Version 16.51), the 44 videos were coded (Table 1). The final code for each video was decided by the agreement between two reviewers (LS and AW).

Descriptive Analysis

We performed descriptive statistics to quantify the proportion of themes. We analyzed the comments using VADER, a lexicon and rule-based sentiment analysis tool specifically attuned to sentiments expressed on social media. VADER estimates sentiment in three categories: positive, negative, and neutral. We calculated the mean percentage of positive, negative, and neutral comments of each of the videos per category (Table 2). For each category, we also obtained top 10 words among all comments posted on all videos annotated in the category (Table 3). We removed stop words by dropping the top 50 most frequent words across all comments. This dropped uninformative words such as (a, the, #fyp, vaccine, tiktok etc.). The #fyp is a common hashtag used to promote TikTok content. We consulted with our University's Institutional Review Board who verified that this study does not need an IRB approval

Table 1. Codebook and Descriptive Analysis. Note: 37 of the 44 videos posted were related to the contest.

Theme	Theme Operational Definition	Sub-themes	Sub-theme Operational Definition	Percentage	
				n	(%)
Reason for vaccination	Contestant explicitly mentioned why they received the COVID-19 vaccine	Societal / Civic duty	Quality of responsibility of a citizen and social participation	18	49
		Friends/Family	Individual(s) with mutual affection or ancestral relation	19	51
		Returning to pre-COVID-19	Desire to return to pre-pandemic lifestyle	11	30
		Prevent COVID-19 cases	Desire to not get COVID-19 oneself or pass it on to others	8	22
Sentiment	Video's prevailing mood or attitude	Immune-compromised	Having an impaired immune system	8	22
		Humor/Parody	Quality of being amusing or comic	8	22
		Fear	Quality of using unpleasant emotions to motivate behavior or change beliefs	5	14
		Informative	Providing useful or entertaining or information	7	19
		Empathy	Quality of relating or sharing the feelings of another	15	41
		Against the COVID-19 vaccine	Opposed to getting the COVID-19 vaccination	1	3
Content	Objects featured	Neutral	Does not evoke emotions	4	11
		Vaccination Card	CDC COVID-19 vaccination card	9	24
		Friends/Family	Individual(s) with mutual affection or ancestral relation	12	32
		Media	Featuring a news clip, social media posts and videos	8	22
		Dancing	Featuring individual(s) dancing	7	19
		Adhesive bandage	Featuring adhesive bandage on arm	9	24
		Sports	Featuring physical activities such as football, baseball, etc.	5	14
		Health care workers	Featuring individuals dressed in scrubs, white coats and those who explicitly note their medical credentials	8	22
		Not applicable		3	8
		COVID-19 vaccine	If contestant mentions the COVID-19 vaccine		7
COVID-19 vaccine	Does the video mention specific COVID-19 vaccine type	Moderna		4	57
		Pfizer		1	14
		Johnson & Johnson		2	28
		Astra Zeneca		0	0
CDC banner	Video displays CDC banner		8	22	
Not related	Providing content other than vaccine		7	16	

as we did not interact with any individuals and the data is public. However, we have exercised caution to redact any personally identifying information and have paraphrased all illustrative posts used in the paper.

Results

Overall, of 44 videos tagged with #getvaccinatedAL and #ADPH; 37 were related to the contest. Of the 37 videos, most videos' sentiment (e.g., prevailing mood or attitude) was coded as empathetic (n = 15, 41%) and half of contestants cited 'friends/family' (n = 18, 49%) and 'societal and civic duties' (n = 19, 51%) as their reason(s) to get the COVID-19 vaccine (Table 1). One in three

videos featured photos or videos of 'friends and family' in their submission (n = 12, 32%). Other objects featured were vaccination cards (n = 9, 24%), adhesive bandages (n = 9, 24%), media (e.g., news clip, social media posts and videos) (n = 8, 22%), health care workers (n = 8, 22%), and individuals dancing (n = 7, 19%). Whereas only 19% (n = 7) of videos explicitly mention that they received a COVID-19 vaccine. Of which, most contestants received the Moderna vaccine (n = 4) (Table 1). The TikTok platform labeled one in five (n = 8) videos with the CDC banner, "Learn More about the COVID-19 banner," and provided a link to the CDC website.

Videos entered in the ADPH contest were shared an average of 9 times (min: 0 and max: 164) and played an average of 977 times (min: 37 and max: 5,988). Most videos, 70% (n = 26)

Table 2. Distribution of positive, negative, and neutral comments on TikTok videos per theme in our dataset

Theme	Sub-themes	n (videos)	n (comments)	Percentage of Comments Mean/Std Dev.		
				Positive	Negative	Neutral
Reason for vaccination	Societal / Civic duty	10	307	48.48 (13.27)	13.81 (14.18)	37.71 (14.76)
	Friends/Family	12	139	54.3 (21.06)	7.0 (9.91)	38.7 (20.37)
	Returning to pre-COVID-19	5	74	46.82 (10.07)	18.84 (16.64)	34.34 (12.33)
	Prevent COVID-19 cases	3	21	54.69 (11.91)	6.06 (10.5)	39.25 (15.79)
	Immune-compromised	5	51	58.41 (23.94)	6.19 (8.52)	35.4 (23.26)
Sentiment	Humor/Parody	4	44	33.73 (23.91)	14.98 (18.19)	51.29 (35.1)
	Fear	—	—	—	—	—
	Informative	8	287	45.46 (17.99)	10.03 (11.58)	44.51 (20.03)
	Empathy	5	55	61.74 (23.64)	6.19 (8.52)	32.07 (21.79)
	Against the COVID-19 vaccine	—	—	—	—	—
Content	Neutral	—	—	—	—	—
	Vaccination Card	8	78	48.97 (18.7)	4.43 (6.72)	46.61 (19.29)
	Friends/Family	12	139	54.3 (21.06)	7.0 (9.91)	38.7 (20.37)
	Media	3	50	54.05 (24.18)	9.52 (16.5)	36.43 (15.2)
	Dancing	2	21	38.12 (25.63)	3.12 (4.42)	58.75 (30.05)
	Adhesive bandage	6	54	52.48 (14.77)	7.89 (8.84)	39.62 (14.83)
	Sports	4	69	41.77 (10.34)	22.12 (15.8)	36.11 (13.49)
COVID-19 vaccine	Health care workers	3	21	43.45 (6.27)	9.72 (8.67)	46.83 (12.22)
		2	14	60.61 (8.57)	9.09 (12.86)	30.3 (4.29)

received comments from other TikTok users. The number of comments per video ranged from 0 to 611. Average number of comments were 44 per video (median = 42). Few videos (19%, n = 5) had more than 50 comments. Three videos in our sample were outliers in which they had 611, 291, and 117 comments. Using VADER, most comments (n = 502) were coded as positive (Table 2). Table 2. shows percentage of positive, neutral, and negative comments on videos annotated as different themes. Videos with ‘friends/family’, ‘society/civic duty’, ‘prevent COVID-19 cases’, ‘immune compromised’ as their reason(s) for getting the COVID-19 vaccination had a higher number of positive comments (Table 2). Whereas videos coded as ‘empathy’ for the theme sentiment, and featured objects like ‘media’, ‘band-aid’, ‘sports’ also had a higher number of positive comments (Table 2) compared to videos coded as ‘informative’ for the theme sentiment and featured objects like ‘vaccination card’, and ‘HCWs.’ had similar mean percentages of positive and neutral comments per video.

Furthermore, the most frequently used words and emojis in comments were, “smiling face emoji with 3 hearts”, “your”, “amazing”, “masks”, “beautiful”, and “good,” (Table 3). Most used words in the negative categorized comments, included, “baby”, “shot”, “cold”, “me”, “my”, “chip”, and “covid.” (Table 3). Emojis are described by using <https://emojipedia.org/>. Table 4. Includes illustrative comments per VADER estimated sentiment category (e.g., positive, neutral, and negative). Positive comments endorse and validate the contestant vaccination status; one commenter said, “*What a lovely baby. I’ve been fully vaccinated for a while and have been encouraging everyone to do the same [double heart emoji]*” (Table 4). Most negative comments prominently included views against getting the COVID-19 vaccine such as allergic reactions, government tracking, and

misinformation about COVID-19 contagion and spread. One commenter posted, “*i think it’s probably the vaccinated that’s spreading covid, not the unvaccinated. i don’t understand how people can be this clueless!*”

Discussion

Our descriptive analysis captures the ADPH contestants’ rationale and imagery used to convey why they received the COVID-19 vaccine. Approximately, one-third of videos included actual footage (i.e., photos or videos) of their friends and family in their submission and cited ‘friends/family’ as a reason to get the COVID-19 vaccine (n = 19, 51%) (Table 1). Since the COVID-19 pandemic drastically changed the ways we interact with one another,¹⁶ most contestants urge others to get vaccinated to be able to safely spend time with their loved ones. Additionally, most videos evoked ‘empathy’ (n = 15, 41%) and videos featured objects such as a ‘vaccination card’ (n = 9, 24%) and ‘adhesive bandages’ (n = 9, 24%) to demonstrate the process of receiving the vaccine. Featuring a vaccination card was illuminating since most states and counties, vaccination cards grant individuals’ access to social activities, like restaurants and concerts in summer 2021. Interestingly, few videos mentioned which type of COVID-19 vaccine they received and were tagged by the TikTok platform with the CDC banner noting “Learn More about the COVID-19 vaccine.” TikTok reports using a vaccine tag to detect and tag videos with words and hashtags related to the COVID-19 vaccine.¹⁷

Analyzing video comments revealed both positive and negative responses to promoting the COVID-19 vaccine (Table 2). Most individuals who entered the ADPH contest received positive

Table 3. Top words and emojis^a based on frequency of occurrence in the comments of videos per sub-theme.

Theme	Sub-themes	Top Words (all Comments)
Reason for vaccination	Societal / Civic duty	For, good, your, my, choice, smiling face emoji with 3 hearts, do, me, shot, with, what, on, up, own, be, luck, god
	Friends/Family	For, good, your, smiling face emoji with 3 hearts, my, choice, are, what, do, with, me, shot, on, up, own, luck, be, all
	Returning to pre-COVID-19	my, me, on, u, good, are, your, i'm, great, as, for, covid, ppl, make, clapping hands emoji, job, still
	Prevent COVID-19 cases	my, your, so, me, loudly crying emoji, at, are, doing, story, on, getting, flexed bicep emoji, immunity, all, animations, aa, like, as
	Immune-compromised	Smiling face emoji with 3 hearts", my, beautiful, she, for, your, what, with, so, red heart emoji, vaccinated, her, baby, daughter, been, everyone, love, has
Sentiment	Humor/Parody	rock on emoji, smiling face emoji with 3 hearts, thanks, vaccinated, masks, flushed face emoji, how, getting, me, on, sorry, 2, jabs, your, thoughts, bring, southern
	Fear	—
	Informative	Good, for, your, my, choice, are, do, so, shot, smiling face emoji with 3 hearts me, what, with, own, up, be, on, luck, god
	Empathy	Smiling face emoji with 3 hearts, my, beautiful, she, for, so, your, what, with, red heart emoji vaccinated, her, all, baby, love, four leaf clover emoji, daughter, purple heart emoji
	Against the COVID-19 vaccine	—
Content	Neutral	—
	Vaccination Card	Smiling face emoji with 3 hearts, love, rock on emoji, for, thanks, are, amazing, your, thank, awesome, red heart emoji news, doing, story, on, vaccinated, let, do
	Friends/Family	Smiling face emoji with 3 hearts, my, for, so, love, your, she, are, beautiful, great, with, red heart emoji all, good, job, what, baby, vaccinated
	Media	Smiling face emoji with 3 hearts, love, are, my, for, great, amazing, job, u, me, be, good, think, your, grinning emoji, so, up, live
	Dancing	Love, yessss, amazing, gahhh, best, as, should, queen, 100, thank, creative, great, job, challenge, an, email, monocle emoji, emoji with tears of laughter, second
	Adhesive bandage	Smiling face emoji with 3 hearts, rock on emoji, thanks, your, for, love, my, me, red heart emoji are, good, all, amazing, so, loudly crying emoji, let, been
	Sports	rock on emoji, my, smiling face emoji with 3 hearts, clapping hands emoji, u, me, on, great, your, so, for, are, ppl, job, still, do
	Health care workers	Smiling face emoji with 3 hearts, rock on emoji, sharing, thanks, has, been, with, your, flexed bicep emoji, immunity, red heart emoji their for, let, do, #Alabama
COVID-19 vaccine	my, your, me, loudly crying emoji, are, doing, story, on, so, animations, aa, like, as, well, covid, glowing star emoji	

^aEmoji description informed by <https://emojipedia.org/>

Table 4. Illustrative comments^a per estimated sentiment categories: positive, neutral, and negative.

Estimated Sentiment	Illustrative Comments
Positive	<p>"Awesome video! Congrats on being recognized"</p> <p>"Love you so much [name]. Everyone get the vaccine [syringe emoji] even if you think you don't you do"</p> <p>"What a lovely baby. I've been fully vaccinated for awhile and have been encouraging everyone to do the same [double heart emoji]"</p>
Neutral	<p>"hey that's my house in your video"</p> <p>"your video is on my fyp"</p> <p>"Omg, she looks just like you"</p>
Negative	<p>"please tell me more about the vaccine. I'm scared of getting it because my stupid parents says we're allergic to it and decided to never vaccinate us"</p> <p>"Thank you! People think the government tracks us with chips. that" stupid."</p> <p>"i think it's probably the vaccinated that" spreading covid, not the unvaccinated. i don't understand how people can be this clueless!"</p>

^aAll comments paraphrased to preserve anonymity and emoji description informed by <https://emojipedia.org/>

feedback and enforcement from their TikTok followers. Videos with ‘friends/family’ (54%), ‘society/civic duty’ (48%), ‘prevent COVID-19 cases’ (55%), ‘immune compromised’ (58%) as their reason(s) for getting the COVID-19 vaccination had a higher percent of positive comments as compared to neutral and negative comments (Table 2). However not all videos received endorsement. Some comments in our sample were similar to Budhwani and colleagues (2021) findings, where young Alabamians cited misinformation, side effects, and institutional mistrust, contributing to their acceptance of the COVID-19 vaccine.⁸ For example, one commenter said, “*You are being lied too!!!*” and “*“i think it’s probably the vaccinated that’s spreading covid, not the unvaccinated. i don’t understand how people can be this clueless!”*” Of note, negative comments included more first-person singular words such as “me, my” Previous research found that first person singular words suggest a sense of fear or uncertainty.¹⁸ In addition, emojis were used frequently in the comments. Emojis are pictograms, logograms, ideograms and smileys. Emojis have become widespread and increasingly used in digital communication. Prior research found that emojis convey semantic information and support reading comprehension;¹⁹ Oxford Dictionary even named emoji face with tears of laughter the Word of the Year in 2015. It is noteworthy to underscore the widespread use of emojis in the comments among this study sample.

ADPH used TikTok for their contest. TikTok’s use has dramatically increased during the COVID-19 pandemic, it gained over 300 million users in one year.²⁰ TikTok videos are short format and uniquely captures users’ attention in ways that other social platforms such as YouTube videos cannot.^{21,22} Similarly, engaging individuals aged 13-29 is a unique population. Since TikTok is primarily used by young people; 63.5% are younger than 29 years of age.²⁰ Young people, especially minors are a unique population as they have some ability to consent to vaccination, however in the majority of states, the ultimate decision lies with their parent(s) or legal guardian(s).²³ Because of this, vaccination rates for young people may lag behind that of adults and their opinions of the vaccine may mimic that of influential figures in their lives. Table 4. includes a comment from a young person under 18 years of age states, “*Please tell me more about the vaccine. I’ve scared of getting it because my stupid parents says we’re allergic to it and decided to never vaccinate us,*” (Table 4). Despite these complex challenges, teens are mobilizing together to provide timely, relevant health information. For instance, Vaxteen.org was started by a high school senior who wanted to provide reliable and easy-to-understand information to her peers. Vaxteen.org provides helpful tools like, ‘how to talk to your parents about vaccination,’ ‘common myths busted’ and recent press on how teens are banding together on TikTok and Reddit, another prominent social media platform, for vaccination resources and stories.²⁴

Furthermore, social media challenges and contests draw upon important psychological and behavioral economic principles such as ‘norm setting’ and utilize direct, personal experience, both of which are powerful heuristics in the health-related decision-making process. James and colleagues (2021)

found that messaging that is focused on “pro-social COVID-19 vaccination and social image concerns” were the most effective at increasing intended vaccine uptake and impacted respondents’ intended willingness to persuade others to get vaccinated against COVID-19.²⁵ They highlight the power of prosocial behavior to impact young people’s decision-making process, who especially strive for social acceptance.²⁶ The collaboration between Vietnamese young people and Vietnam’s National Institute of Occupational and Environmental Health, represents a real-world example of leveraging social media and pro-social, norm setting messaging to impact health-behaviors and health-related decisions. Early in the COVID-19 pandemic, there was a TikTok handwashing dance challenge (e.g., #GhenCo-VyChallenge) intended to motivate individuals, especially young people, to properly wash their hands. The PSA responded to the World Health Organization’s recommendation that regular handwashing is a “simple and effective method to protect the community from diseases,” The challenge went viral in May 2020, it received over 44.1 million views on TikTok and over 8 million views on YouTube. It represents a successful global social media and public health campaign. The portrayal of “challenges” on popular social media platforms has the ability to introduce public health topics earlier to younger individuals and can reach distant audiences, leading to the promotion and acquisition of pro-social health behaviors.²⁷

Strengths

There are several strengths to our analysis. Our study sample uniquely captures contestants and their viewer’s comments. Previous research primarily captures the video content and not TikTok users’ reactions to it.¹⁷ Second, our codebook captured both video themes and production variables. Our analysis provides an ecological lens into the motivations and concerns towards the COVID-19 vaccine especially among ADPH contestants, individuals aged 13-29 and viewers, which is the majority demographic of TikTok.¹³

Limitations

There are limitations to our sample and analysis. First, we only identified videos using #getvaccinatedAL and #ADPH during the Alabama Department of Public Health’s contest, July 16 – August 6, 2021, and additional hashtags or might yield subsets of videos with differing content, sentiment, and levels of incorrect content and misinformation. Second, we used VADER to characterize comment sentiment, which has limitations to coding compound sentences. Third we captured the first 100 comments per video. Anecdotally, highly commented videos included a lively conversation endorsing and discrediting the COVID-19 vaccine’s efficacy, thus captured comments reflect a limited and perhaps positive-leaning perspective.

Despite these limitations, capturing prevailing imagery and sentiment towards the COVID-19 vaccine is essential for public health messaging.^{8,15} Future research should analyze all video comments in order to characterize the entire

comment population rather than just a sample (i.e., first 100 comments). This analysis did not capture the extent to which the campaign was successful in reaching and converting unvaccinated individuals to receive the COVID-19 vaccines. Rather, we classified the type of content and sentiment used in TikTok videos created to motivate Alabamians to get vaccinated. Considering the importance of booster shots, additional insight into why individuals get vaccinated or not is especially pertinent. Future research is also needed on TikTok users to better understand how TikTok videos influence their understanding of the COVID-19 vaccine. Additionally, pilot studies are needed to test and evaluate the ‘success’, may it be debunking COVID-19 vaccine misinformation or increasing the number of fully vaccinated and boosted individuals, of social media contests and campaigns.

Conclusion

As we continue to combat COVID-19 infections and illness, promoting the COVID-19 vaccine is paramount. Our findings demonstrate that a public health department sponsored contest garnered ‘empathic’ content to promote young people to get vaccinated. Furthermore, analyzing TikTok videos provides real-time insights into public discourse and could be used to inform public health messaging.

So WHAT?

What is already known about the topic?

COVID-19 vaccination rates are a key public health concern.

What does this article add?

We conducted an exploratory analysis of Alabama Department of Public Health (ADPH) video entries with #getvaccinatedAL and #ADPH to capture rationale and imagery used to why Alabamians received the COVID-19 vaccine. We found most videos were coded as empathetic and cited family, friends, and civic duty as reasons to get the COVID-19 vaccine. Most videos were shared 9 times and received over 900 views. Comments were mostly positive and most used words were “beautiful,” “smiling face emoji with 3 hearts,” “masks,” and “good.”

What are the implications for health promotion practice or research?

Understanding COVID-19 vaccine sentiment expressed online through social media platforms and crowd-sourced communication can be a powerful tool and resource to tailor public health messaging.

Author Contributions

Lauren Southwick: Design of experiment, writing of the article, revising of text and/or figures

Ashley Francisco: Data analysis and interpretation, writing of the article

Megan Bradley: Data analysis and interpretation, writing of the article

Elissa Klinger: Writing of the article, revising of text and/or figures

Sharath Guntuku: Design of experiment, revising of text and/or figures

Declaration of Conflicting Interests

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Funding

The author(s) received no financial support for the research, authorship, and/or publication of this article.

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