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Diets, Detoxes, and Dysmorphia: Health, Wellness, and Misinformation on TikTok

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Diets, Detoxes, and Dysmorphia: Health, Wellness, and Misinformation on TikTok

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May 9, 2022

Abstract

The worlds of social media and wellness have been similarly categorized as “Wild West” industries. Innovation in science and technology are growing exponentially and are increasingly a part of most people’s everyday lives. TikTok began in 2016 and has since accumulated 78.7 million users in the United States. The wellness industry was valued at \$4.37 trillion worldwide in 2020, likely due in no small part to the concept’s proliferation across social media platforms like TikTok. This rapid growth has come with unforeseen consequences, both positive and negative. A negative consequence that has been more frequently discussed and researched in the past decade has been the proliferation of misinformation, information that is either untrue, misleading, or both. This study explored how wellness-interested interaction with content recommended by the TikTok algorithm affects the quantity of misinformation a user may see over time, as well as the qualities of the misinformation a user may see over time. Content analysis of 420 TikTok videos found that 15 of them included health and wellness misinformation, 25% of all the health and wellness content collected and analyzed. The theme of weight loss and rhetorical strategies utilized to motivate a viewer to lose weight were found to be prevalent throughout the sample, despite lack of any direct user input related to the topic, seemingly indicating need for further research into the indirect, implied messaging of “health and wellness” content and how its creators interact with social media algorithms.

Table of Contents

Introduction.....	p. 3
Research Questions.....	p. 4
Review of Literature.....	p. 5
Defining Health and Wellness.....	p. 5
Defining Misinformation.....	p. 6
Where Health, Wellness, and Misinformation Meet.....	p. 8
Methodology.....	p. 9
Decision Trees.....	p. 11
Clarifying Information.....	p. 12
Results.....	p. 14
Discussion.....	p. 17
Research Question #1.....	p. 17
Research Question #2.....	p. 18
Conclusion.....	p. 24
Author’s Note.....	p. 25
References.....	p. 27

Introduction

Over the past twenty years, two industries have taken root in and made significant cultural changes to life in the United States: social media and wellness. Both have been categorized as “Wild West” due to their initial lack of significant regulation, widespread participation of the public, and their rapid growth in financial value (and, as a result, competition). Unforeseen consequences of each have begun to take effect over the last decade. In terms of social media, some of these effects have been notably positive for many members of society, but its negative effects have commanded the attention of media coverage in recent years. For example, the effects of social media use have been studied in children and adolescents and found to contribute to mental health issues like depression, anxiety, body image concerns, and social isolation (Keles, McCrae, & Grealish, 2020; Ryding & Kuss, 2020).

A topic of interest that surfaced more significantly after the 2016 election was misinformation, disinformation, and the manner in which social media algorithms on platforms like Facebook, Instagram, and YouTube contributed to their proliferation. This has contributed to a significant decline in many individuals’ trust in societal institutions like news outlets, doctors and hospitals, political parties, and government agencies (Cheng & Chen, 2021; Edelman, 2022). An environment in which there is low or lower trust of societal institutions in combination with a culture of personal responsibility surrounding health like that of the United States may lead many members of the culture to turn to new sources for information about their health and wellness (Edelman, 2022; Ehrenreich, 2018; Rothschild, 2021, pp. 87-88). Many individuals and organizations have identified this trend and have sought to fill this need. As a result, the wellness industry has experienced exponential growth over the past ten years, valued at \$4.37 trillion worldwide in 2020 (IBISWorld 2020; TravelDailyNews, 2021). Many social media platforms

are, then, saturated with both health and wellness content and misinformation, neither completely immune from overlap with the other. Unregulated wellness products, untested wellness strategies, and other health information with no factual or scientific support can be found on platforms like Facebook, Instagram, Twitter, and YouTube with a search for “wellness.” This research seeks to explore this relationship between health, wellness and misinformation in a more in-depth manner on the social media site TikTok.

Founded in 2016, TikTok has accumulated 78.7 million users in the United States, outpacing platforms like Facebook and Twitter among young users. TikTok’s largest audience is individuals ages 10 to 19, who make up 25% of the platform’s user base (Backlinko, 2022). Consensus among many researchers is that children and adolescents seem to be particularly vulnerable to the negative mental health effects of social media usage and, despite the technology literacy that comes with being a digital native, most are not equipped with sufficient media literacy skills to accurately discern misinformation online (Jolley, Douglas, Skipper, Thomas, & Cookson, 2021; Keles, McCrae, & Grealish, 2020; Ryding & Kuss, 2020; Wineburg, McGrew, Breakstone, & Ortega, 2016). This research, therefore, seeks to explore how wellness-interested interaction with content recommended by the TikTok algorithm affects the quantity of misinformation a user may see over time, as well as the qualities of the misinformation a user may see over time.

Research Questions

RQ 1: How does wellness-interested interaction with content recommended by the TikTok algorithm affect the quantity of misinformation a user may see over time?

RQ 2: How does wellness-interested interaction with content recommended by the TikTok algorithm affect the qualities of the misinformation a user may see over time?

Review of Literature

Defining Health and Wellness

“Health” and “wellness” are terms used frequently and generally understood in conversation about the maintenance of a human body, but they become much more abstract when seeking an explicit definition, as any definition is ultimately influenced by the political, cultural, and sociological environment the person articulating it comes from. A widely-accepted definition of “health” comes from the preamble to the World Health Organization’s Constitution: “a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity” (World Health Organization, 2022).

“Wellness,” being a term that has only within the past few decades come into popular use and association with “health,” does not possess a similarly widely-accepted definition. However, many of its definitions do include similar elements: holism, the perspective that the human body should be treated as one system with many dimensions rather than as a series of systems; pursuit, the idea that “wellness” is an activity or series of activities rather than an achievable status; and specificity, the notion that “wellness” consists of actions unique to their practitioner and are pursued personally (Ehrenreich, 2018, p. 117). The Global Wellness Institute’s definition of wellness may best encapsulate these ideas: “the active pursuit of activities, choices and lifestyles that lead to a state of holistic health” (The Global Wellness Institute, 2022). In further acknowledgement of the difficulty with which these concepts seem to be defined, it is noteworthy that these definitions each include the other: this definition of health utilizes the term “well,” and that of wellness uses “health.”

The wellness industry, the individuals, organizations, corporations, and other entities seeking to make these abstract terms actionable via the commercial promotion of products and

services that may help individuals achieve wellness to a fuller extent, has experienced significant growth over the past decade even despite the nebulous nature of these concepts' definitions. The global wellness market was valued at \$4.37 trillion in 2020 and is projected to reach \$6.99 trillion by 2025 (IBISWorld 2020; TravelDailyNews, 2021). The United States is the largest player in the market, the country's share valued at \$1.2 trillion, almost double the of size China's, the next largest market (Global Wellness Institute, 2022). Social media platforms have grown in popularity in a similar timeframe. Platforms like Twitter and Facebook experienced significant upticks in usage and revenue in the 2010s (Statista Research Department, 2022; Statista Research Department, 2022; Statista Research Department, 2022). Founded in 2016, TikTok reached 1 billion users in 2021, the second fastest time in which social media platform has ever reached a user base of that size (Statista Research Department, 2022). Young people, particularly adolescents and teenagers, are most commonly the users who log the most hours on social media platforms, the most popular among them in 2022 being Snapchat, TikTok, Instagram and Twitter, respectively (Ceci, 2021; Statista Research Department, 2022).

Defining Misinformation

These rapid rates of growth may serve to partially explain the similar haziness that seems to proliferate the definition of misinformation on social media. According to the Pew Research Center, many Americans report that they've encountered misinformation on social media or that they know others who have been affected by it, but various academic definitions of misinformation articulate differing qualities (Barthel, Mitchell, & Holcomb, 2016; Cacciatore, 2021; Enders, et al., 2021; Rubin, 2019; Shah, et al., 2019), and subjects in scientific studies still struggle to identify it, particularly children, adolescents, older people, and people who have lower levels of education (Enders, et al., 2021; Jolley, et al., 2021; Rubin & Conroy, 2012; Seo,

Blomberg, Altschwager & Vu, 2021; Wineburg, et al., 2016). Rubin (2019), who defines misinformation as “unintentionally inaccurate misleading information” (p. 1014), attributes its current status as academic and cultural zeitgeist to the growing effects misinformation on social media and its consequences have in people’s everyday lives, using its role in the 2016 United States presidential election and United Kingdom Brexit referendum as examples (p. 1017).

Many scholars echo this, suggesting that the erosion of trust in societal institutions that has occurred over the past several years in combination with American ideals like personal responsibility and freedom of choice have created a cultural environment ripe for individuals to silo themselves off from information sources that may not conform to their own ideas of reality (Edelman, 2022; Ehrenreich, 2018; Hook & Markus, 2020). Individuals’ trust in traditional information sources like news outlets decreased by eight percentage points to 53% in 2021, according to the Edelman Trust Barometer (2022, p. 24). “Big Pharma” (a term commonly used to reference large corporations that produce pharmaceutical drugs), the medical establishment, and Western medicine as a whole are also caught in this crossfire (Ehrenreich, 2018). Rothschild (2021) argues that the proliferation of misinformation on social media thrives on historical instances in which conspiracies turned out to be true, particularly in terms of health and medicine:

“Life is full of scams, rip-offs, frauds, small-time crooks, cheapskates, and shady types trying to make a buck at our expense. To assume that there are many forces out there trying to screw us or hurt us is not delusional... Toxic dumping, hiding carcinogens in food, polluting water, and the like actually give people cancer, and are carried out by major companies all the time...[T]he U.S. Public Health Service engaged in a grossly unethical four-decade conspiracy to withhold syphilis treatment from Black sharecroppers in Tuskegee, Alabama... These are real things” (p 88-89).

Where Health, Wellness, and Misinformation Meet

These conceptions of what may cause misinformation in the realm of health and wellness in modern American culture seem to serve as the crux for the most extensive research that has taken place regarding the overlap of these topics: anti-vaccination content. Anti-vaccination content was able to break through to more mainstream social media users in a more significant capacity as a result of the COVID-19 pandemic and the promotion of conspiracies about a vaccine that would affect the numerous, large quarantining populations across the globe. Even, before the pandemic, however, the “anti-vax movement,” based predominantly in the unevicenced claim that vaccines cause autism when given to young children, had significant footing in certain spheres on social media platforms. Some scholars have attributed the growth of these communities in which misinformation plays a significant role to the recommendation methods used by social media platforms (Del Vicario, et al., 2016; Muric, Wu & Ferrara, 2021; Shah, et al., 2019; Tang, et al., 2021). Del Vicario, et al. (2016) find that scientific content and conspiracy content exist in entirely separate “silos” on Facebook, and that these silos are homogenous and polarized. The results of research by Tang, et al. (2021) suggests that YouTube’s recommendation algorithm is likely to expose a user to antivaccine content whether they are watching provaccine content, antivaccine content, or content containing more general health misinformation.

This research sought to understand whether these same cultural norms and social media attributes would seem to allow for the spread of other kinds of health and wellness misinformation, such as health products that are unregulated by the Food and Drug Administration; health strategies with little foundation in science; expensive, time-consuming wellness routines that may or may not provide any measurable benefit to their subject; etc. on the

social media platform TikTok. This selection was made given the app's status as one of the fastest-growing social media platforms and its growing appeal among young people (Statista Research Department, 2022; Statista Research Department, 2022). Much research demonstrates how social media generally affects young people's mental health negatively, including contributing to issues like anxiety, depression and body image concerns like body dysmorphic disorder (Gordon, 2020; Keles, McCrae, & Grealish, 2020; Ryding & Kuss, 2020). Given the context of social media's role in the development of these mental issues in the lives of young people, this research sought to identify particular themes of the health and wellness misinformation on TikTok.

Methodology

This research sought to explore how wellness-interested interaction with content recommended by the TikTok algorithm affects the quantity of misinformation a user may see over time, as well as the qualities of the misinformation a user may see over time. This exploration was achieved through content analysis of a sample of videos recommended by the TikTok algorithm. Guidelines established for data collection according to the researcher's definition of "wellness-interested interaction" were as follows. After account information is set up, the mobile app prompts the user to select their interest in categories of topics, one of which is "Health & Wellness." All of the topics under this category were selected, and no topics under any other category were selected. The researcher watched all videos appearing on the user's "For You" page in their entirety once and downloaded them for later analysis. Any video that appeared on the account's "For You" page containing at least one hashtag in a list of predetermined health- and wellness-related hashtags would be "liked," watched in their entirety twice, and downloaded for later analysis. The list of video hashtags that prompted the "liking" of

a video is as follows: #health, #healthy, #wellness, #wellbeing, #healthandwellness, #healthtips, #wellnesstips, #healthyhabits, #wellnesshabits, #wellnessroutine, #healthroutine, #wellnesstiktok, #healthtok, #healthtiktok, #healthytiktok, #fitness, #fitnesstiktok, #fitnesstok, #fittok. This method of interaction was created in consideration of the information that is available about how TikTok's algorithm recommends content based on user interaction, as well as by feasibility tests conducted by the researcher before data collection began (TikTok, 2020).

Content was gathered on a new user account with no defining demographic information other than a name, age, username and email address. A TikTok account requires contact information for account recovery purposes, so the researcher set up an email account through Gmail, providing the following information: name (Jay Doe), birth date/age, (March 18, 2003, making the user 19 as of the first day of data collection), and gender ("Rather Not Say" option selected). The username jd03182022 was then selected, reflecting user's initials and the date data collection began so as not to disclose any extraneous information. The researcher then watched 15 TikToks per day for 28 days (March 18 to April 14, 2022), following the methods for data collection previously I described, creating a total study sample of 420 videos.

After data collection was completed, the videos were assessed to determine whether they contained misinformation. For this research, claims made within the sample videos deemed "misinformation" fall into one or both of the following categories: incorrect and misleading (Rubin, 2019). For the purposes of this research, "incorrect" claims lack the evidential support of at least one applicable scientific study published in an academic journal. A set of criteria from a study conducted by Shah, et al. (2019) was adapted and utilized to determine if a claim was "misleading," assessing the video's level of detail, the presence of exaggeration, the creator's language choices, and any claims of authority or sponsorship made within the video. Decision

trees and accompanying clarifying information (below) were created based on these definitions and utilized by the researcher to determine content that contained misinformative claims that could be assessed for trends and characteristics. These criteria were applied to the audio and textual components of the video, the caption, and the tags of the video. All other components of interaction with content on TikTok (comments, audio titles, gifting, creator profiles, etc.) were not interacted with in any way.

Decision Trees

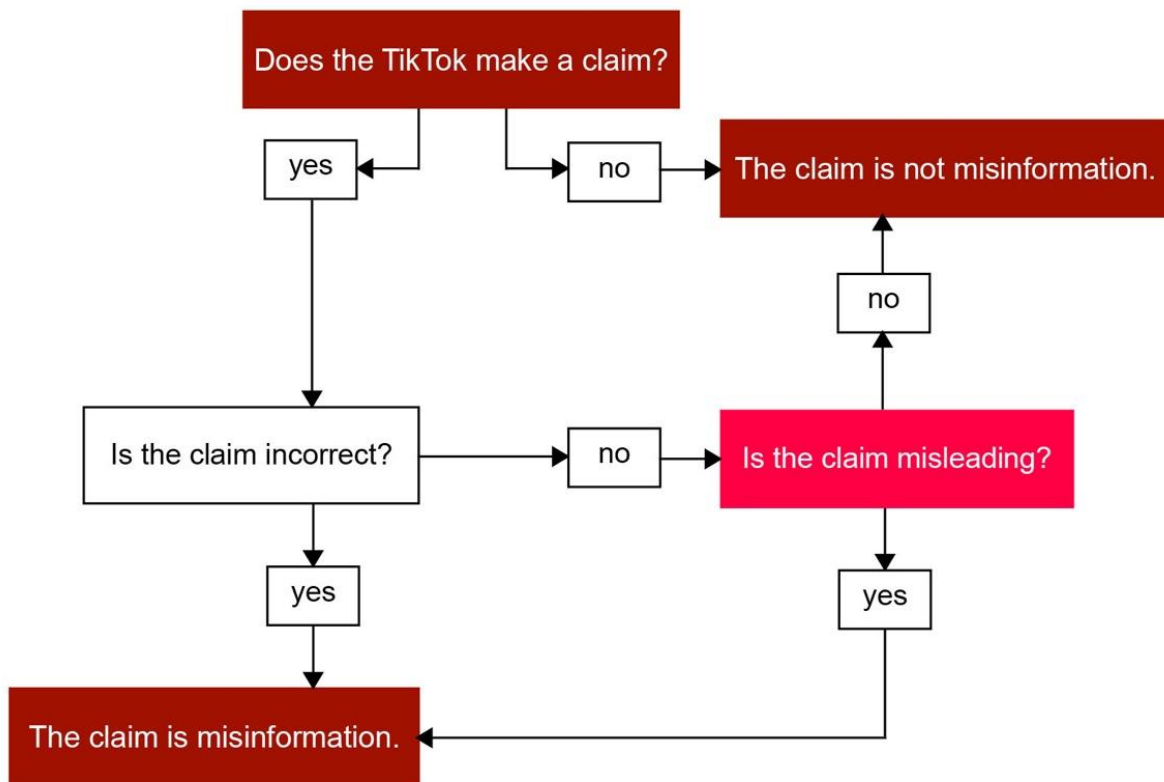


Figure M1 Primary decision tree utilized for determining whether a TikTok video is misinformative

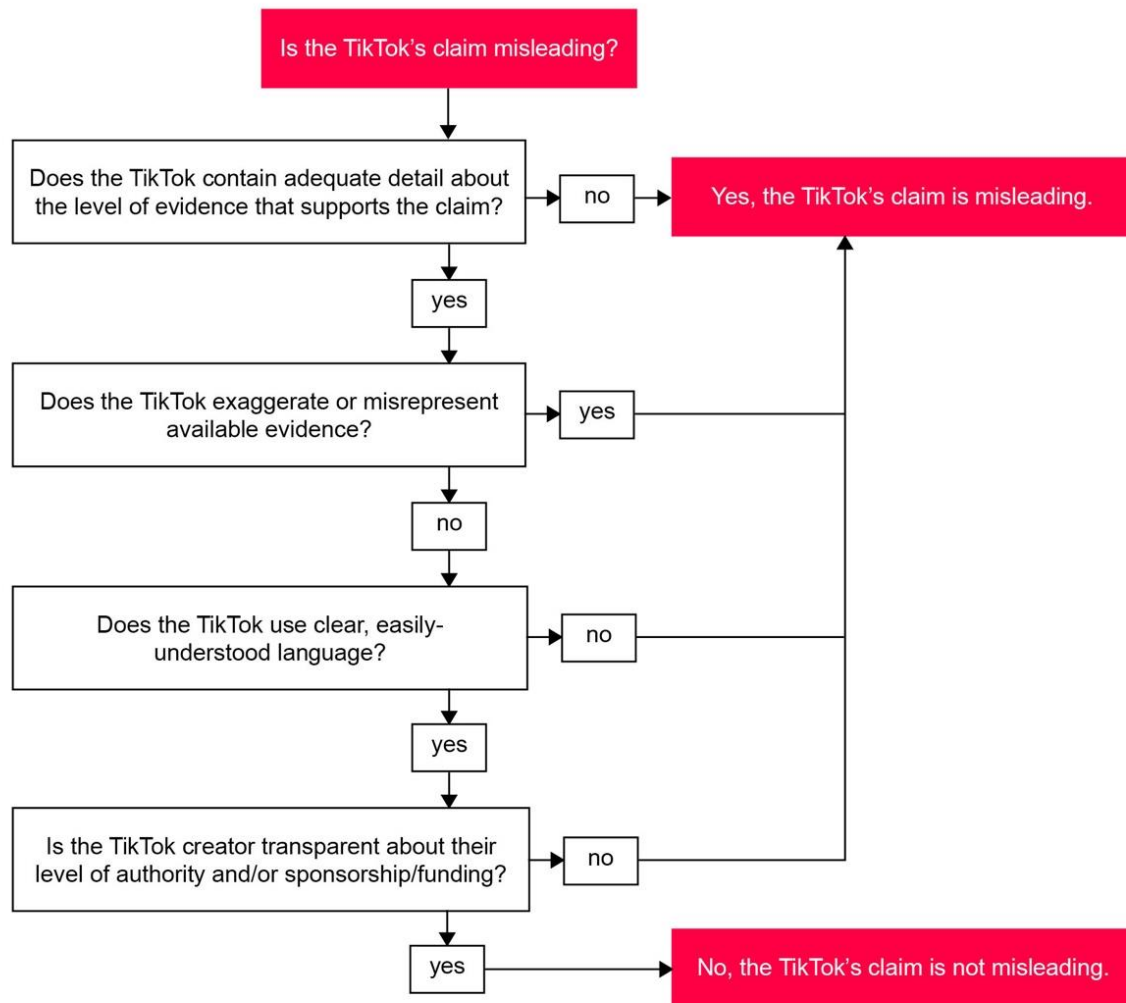


Figure M2 Secondary decision tree utilized for determining whether a TikTok video is misleading, as required for determining whether a TikTok video is misinformative

Clarifying Information

How researcher determined if claim was incorrect

- The information in the claim was not based on objective, scientific research.
 - There was not at least one applicable peer-reviewed study from an academic journal that supports the claim(s) made in the audio or textual components, the caption, or the tags of the TikTok.

How researcher determined if claim was misleading

- Adequate detail about the level of evidence was not present.
 - The audio or textual components, the caption, or the tags of the TikTok did not include accurate information about the conclusions, uncertainties, and limits of research supporting the claim.
- If evidence was provided, the claim exaggerated, overstated, or misrepresented available evidence.
 - The audio or textual components, the caption, or the tags of the TikTok did not accurately characterize the level of credible evidential support for the claim.
- The creator making the claim did not use clear, easy to understand language.
 - The audio or textual components, the caption, or the tags of the TikTok used jargon, logical/rhetorical fallacies, or a level of language complexity otherwise ill-suited for the average TikTok viewer while making the claim.
- The creator making the claim was not transparent about level of authority or any sponsorship/funding they possessed.
 - The audio or textual components, the caption, or the tags of the TikTok did not qualify the claim with information about the creator's personal authority (doctor, physical therapist, anecdote, etc.) to make the claim.
 - If specific sponsored products were identified in the video, the audio or textual components, the caption, or the tags of the TikTok did not contain indication that the creator was sponsored/monetarily benefitting from their promotion of the product.

Results

Of the 420 TikTok videos assessed using the above methods, 60 were categorized as relating to health and wellness based on the audio, visual, and textual components of the video and its tags. Of those 60 health and wellness videos, 15 made specific claims, all of which were found to be misinformative (see Figure R1). In other words, 25% of the videos that related to health and wellness, as assessed in this research, were found to be misinformative, and 3.57% of all videos gathered throughout the data collection period were found to include health and wellness misinformation. No clear linear trend was found in the occurrences of the recommendation of misinformative content throughout the data collection period. Rather, the occurrences seemed to come in clusters, followed by more sustained periods of no misinformation recommended (see Figure R2). The 15 TikTok videos that were found to be misinformative predominantly featured misleading claims in which the creator did not include adequate detail about the level of evidence supporting their claim (80%) and in which the creator did not disclose that they were benefitting financially from the promotion or endorsement of a product in their video or did not disclose their authority to make the claim (66.67%) (see Figure R3).

Types of content	Number of videos seen
Non-health-and-wellness content	360
Non-misinformative health and wellness content	45
Misinformative health and wellness content	15
Total	420

Figure R1 Total amount of each type of content gathered during data collection

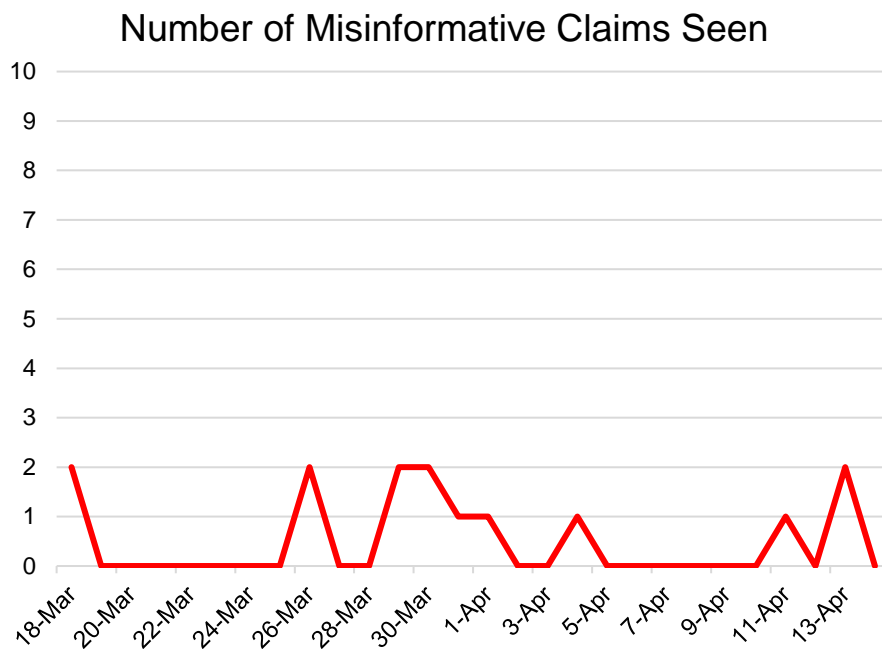


Figure R2 Occurrences of misinformation throughout data collection period

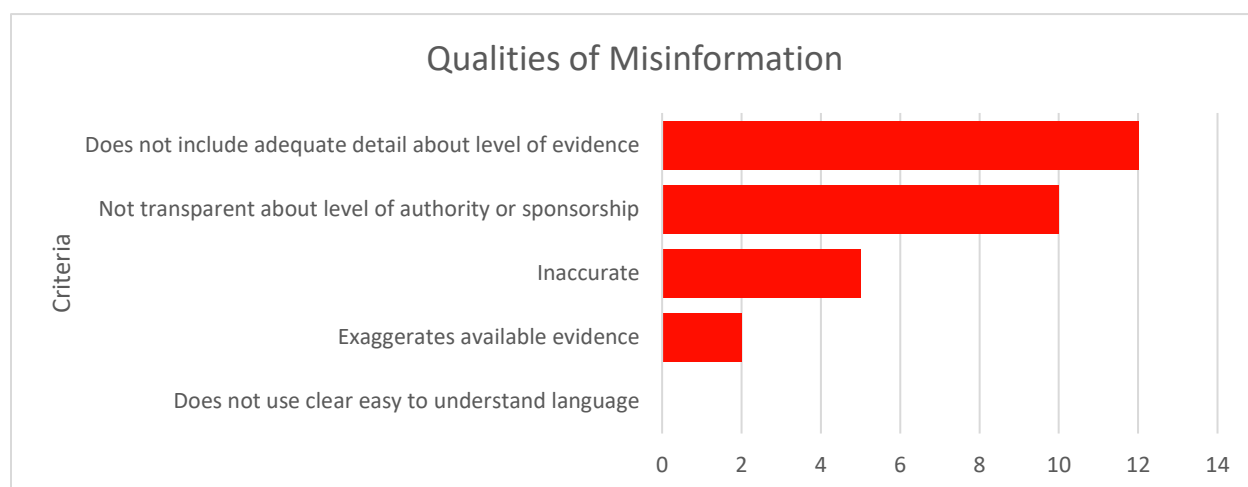


Figure R3 Characteristic breakdown of misinformative health and wellness claims

Particular qualities of the 60 health and wellness videos analyzed, outside of the specific frameworks of misinformation analysis laid out in the methodology section, were also found and considered worthy of note by the researcher. Of these 60 health and wellness related videos, 50%

engaged explicitly in discussion of weight loss, despite the absence of any input on the user end of the account specifically referencing the phrase “weight loss” (see Methods section). Of the 15 misinformative claims, 60% were related to the subject of weight loss. Additional frequently occurring activities in the 60 health and wellness videos include preparing food and giving diet advice, often occurring in the same videos as discussion of weight loss. Other activities that were present across multiple videos were exercising, endorsing products, and providing “motivation,” in which the subject or narrator in the video used rhetoric with the intent of motivating the viewer to pursue strategies that they considered to be key to the achievement of a goal, typically a health-and-wellness-related goal (see Figure R4). Lastly, 48 of the 60 videos related to health and wellness (80%) featured subjects or narrators who present as women. The health and wellness video activity subjects who present as men were more likely to be participating in the activities exercising and providing motivation in their videos than video activity subjects who present as women were (see Figure R5).

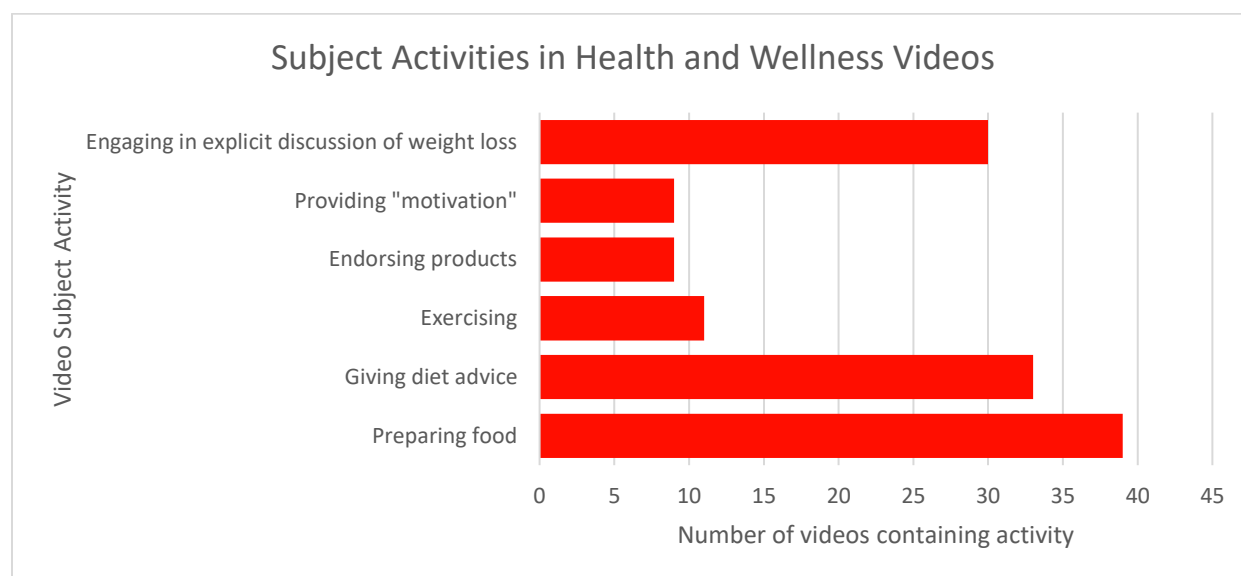


Figure R4 Prevalence of activities undertaken by subjects of videos related to health and wellness

Activities health and wellness video subjects engage in	Percentage of men subjects that engaged in activity	Percentage of women subjects that engaged in activity
Endorsing products	0.00%	18.75%
Engaging in explicit discussion of weight loss	36.36%	54.17%
Exercising	27.27%	16.67%
Giving diet advice	54.55%	66.67%
Preparing food	63.64%	80.00%
Providing “motivation”	18.18%	14.58%

Figure R5 Prevalence of activities undertaken by subjects of videos related to health and wellness by gender

Discussion

Research Question #1

Addressing Research Question #1, the lack of a trend in the occurrence of the recommendation of TikTok videos containing misinformation was an unexpected result, given the framework of extremism and so-called “rabbit holes” misinformation tends to be discussed within. Rather than the linear or perhaps even exponential trend that may have been found if this research utilized a website like Twitter or Facebook, the clustered nature of the occurrences may serve to reflect differences in the nature of the platforms’ respective algorithms. Whereas other deep-learning algorithms tends to recommend content similar to that which a viewer has already consumed (Tang, et al., 2021), according to TikTok, a means of diversifying the content a user sees is built into the app’s algorithm. The recommendation engine that creates a user’s For You Page shows a user content from categories and creators they have not shown any previous interest in as a means of breaking homogenous patterns (TikTok, 2020). While the company suggests this is for the benefit of users not getting bored with their For You Page, it could also be a contributing factor in the clustering of misinformation occurrences found in this research and,

more broadly, a reduced (but still very much extant) concern about the prevalence of misinformation in individual users' experiences.

However, the methodology undertaken in this research was only somewhat comparable to the way a typical user would use the app. Many users do not watch every video that comes up on their For You Page all the way through if it is not relevant to their interests. While the average length of time spent on TikTok per session is about ten minutes, which is comparable to the average amount of time the research spent on the app for each data collection session, the average TikTok user opens the app 19 times per day with an average daily active use time of 89 minutes (Ingham, 2021). Many users follow creators they like, leave comments on videos, share videos with other people, etc., and all of these activities are factors that affect how the app's algorithm functions (TikTok, 2020). There is a strong likelihood, therefore, that the data and trends (or lack thereof) in this research are not wholly generalizable to an average TikTok user's experience. Future research into misinformation on TikTok would likely benefit from a methodology that accumulates and utilizes data through interactions more typical of TikTok users. This would likely necessitate a sample size larger than one For You Page and a data collection period of longer than one month, both factors that would likely also improve the generalizability of the research's results.

Research Question #2

Addressing Research Question #2 takes many forms, all of them complicated. The most frequently occurring phenomenon within the misinformative content was that creators did not adequately detail the level of evidence that existed in support of their claim. This predominantly came in the form of users not disclosing the methods behind the evidence they were sharing, potentially as a result of not knowing themselves or as a choice to exclude that information.

Methodology is a key element in understanding the full picture of what a piece of research that supports a health claim means, and the format of TikTok's content, as well as the content of other social media platforms, is not conducive to disclosure and articulation of a complete picture of what a piece of research means. This ambiguity would seem to contribute to what makes identifying health and wellness misinformation on social media so difficult for many, even for the person conducting this research.

One of the videos deemed misinformative was a recipe video narrated by a man who suggests that the meal he is making in the video was a contributing factor towards his own significant amount of weight loss. While seasoning the food he was making, he claimed that black pepper helps burn fat. There are many academic studies that have evaluated the role black pepper potentially plays in weight loss, such as one by Shah, et al., (2011) which studied the effect of black pepper in treatment of obesity-induced dyslipidemia in rats. In the study, the rats whose high-fat diets black pepper had been incorporated into did lose weight over the course of the study in comparison to the control group who continued to eat the unaffected high-fat diet. At that level, the study would seem to support the creator's claim. However, certain elements of the research seem to be worth consideration before endorsement of these result: the rats' weights were increased in the first four weeks of the study by feeding them a high fat diet in the form of a supplement mixture, rather than the foods rats may typically eat, and the rats' final weight measurements were taken after they were each decapitated and all the adipose tissue was dissected from their bodies and weighed (Shah, et al., 2011). These are exacting scientific methods that almost certainly contributed to the overall accuracy of the study's results, but are those conditions comparable enough to the activities of the average human lifestyle to support conclusively the idea that seasoning a steak with black pepper is going to help a person lose

weight in a significant manner? Perhaps for some, yes, and, for others, no. Without that methodological information being disclosed within the TikTok, though, viewers are not properly equipped to make that judgement for themselves.

An additional layer of complication added to the process of identifying misinformation in health and wellness content like that on TikTok seems to be the cultural acceptance of weight loss as a health and wellness pursuit (or as *the* health and wellness pursuit, as the results of this research may point to). Gordon (2020) suggests that the current “health and wellness” culture of America is a “search-and-replace” for diet culture, saying “the world of ‘wellness’ doesn’t address ‘dieting’; it instead refers to ‘cleanses’ and ‘detoxes’ while using the same restrictive practices and pseudoscience to claim untenable and unrealistic weight loss goals” (p. 63). Health and wellness related user input utilized in this study did not relate to the concept of weight loss explicitly, but the creator output recommended to the user did as a result of the *implicit* role weight loss plays in the culture of health and wellness. Liking TikTok videos that have tags like #healthy and #wellnessroutine ultimately means liking TikTok videos that have tags like #weightlosstips and #dietrecipes because many creators who making weight loss content use health and wellness tags. This could potentially explain the frequent occurrence of discussion of weight loss strategies in the dataset. It also touches on, though, an important element of how misinformation is defined in research like this, which the above methodology failed to capture: what is the threshold at which content that promotes or endorses weight loss strategies might be considered misinformation?

Bodies of research and large amounts of anecdotal evidence have been accumulated in support of the idea that losing weight can benefit the health of some individuals. However, as with the previously discussed health and wellness claim, this may not be a truth universal to all

individuals, and there is research to support that idea (Gordon, 2020, p. 61-62). If, then, content creators are making claims that a particular diet or workout will give the viewer the same results they achieved, should that be captured as misinformation? If their claim is not so direct, and, rather, comes rhetorically in the form of a suggestion, should that be captured as misinformation? What if they have the same impact regardless of the rhetorical elements the video utilizes? Does impact on the viewer beyond their reception of truthful or untruthful information matter when determining what is and is not misinformation? Do the actions a viewer may take as a result of consuming a piece of content matter in consideration of its classification as misinformation? Diets are one of the most common precipitating factors to eating disorders, and there is a known association between social media usage and the development of issues like body image concerns in children and adolescents (Gordon, 2020, p. 62; Keles, McCrae, & Grealish, 2020; Ryding & Kuss, 2020). Does any of that matter in determining whether something is misinformation? Or is it something separate entirely?

The methodology of this research was able to capture very extreme instances of content with harmful rhetoric surrounding the placement of morality on food, restrictive eating, and fatphobia. One video categorized as misinformative depicts a woman walking around a Walmart grocery store calling Hot Pockets, Velveeta cheese, cereals, potato chips, and sodas “poison.” These items are not literally poisonous, but the subject seems to be using the word to make a point about certain foods having adverse effects on the human body, a notion reinforced perhaps by the creator’s use of the tag #foodismedecine. This seems to suggest to the viewer that these foods and foods like them are to be restricted or avoided altogether in order to achieve a level of “wellness” as seemingly emphasized by the subject’s closing line in the video: “Eat like shit, feel like shit.”

Another video features a woman speaking directly to the viewer about the kinds of foods that should be avoided over the weekend in consideration of the fact that there were “only 80 days left until summer” and so the viewer could “stay on top of [their] summer body goals.” These foods that the subject says are to be completely avoided include fried foods (fried chicken, French fries, fried mac and cheese, fried ice cream, fried fish), fast food (Chik-fil-A, McDonald’s, Burger King, Wendy’s, Popeye’s, Domino’s), snacks (cookies, cakes, ice cream, sweets), and too much wine. These list items are interspersed with “motivational” comments from the subject like “focus” and “it’s time to get rid of that fupa” (an acronym for “fat upper pubic area”).

A third video features a woman preparing a recipe of stuffed French toast that incorporates protein powder in order to make the meal higher in its protein content. The audio and visual content of the video mainly consist of the step-by-step instructions for making the recipe and the subject’s promotion of a high-protein diet as a means of losing weight, but the first tag in the video’s description is #mcdonaldshacks. This would seem to indicate that the creator wanted this recipe to end up among the content of creators who “hack” the McDonald’s menu, typically an activity completed by combining multiple menu items from one or multiple fast food restaurants to create a new food item, so that users who are already interested in the tag #mcdonaldshacks would have a chance of seeing her recipe.

The first two videos seem to promote restricting food intake to the viewer and use rhetoric that places a negative moral association onto the decision to eat the foods mentioned in the videos (notably foods that are relatively cheap and come from restaurants and grocery stores that can be found much more commonly in towns and cities in America than those that may carry food items that may be considered “healthier”). The creator of the second video seems to

do this specifically as a means to “motivate” the viewer into weight loss, thereby seeming to place that same negative moral association onto bodies that possess “fupa”s or bodies that may not be encapsulated by collective cultural ideas of “summer body goals.” The creator of the third video seems to make an effort to place a video discussing strategies for fat loss into a content category associated with fast food, as though those who have interest in fast food content may also have interest in weight loss strategies. Each of these example videos exhibits qualities of what Gordon (2020) calls “concern-trolling” as an aspect of fatphobia:

“Concern trolls talk about *tough love* as they withhold food, clothing, affirmation, love in the name of pressuring a fat person into thinness... Food surveillance and policing are especially insidious and pernicious tactics of many concern trolls... [they] have invented an etiology of my body: a troubled past, a mental or experiential defect that has led me to maladaptive behavior... whatever [their] behavior—strawman debates, food policing, trauma voyeurism, “tough love,” or “motivation”—concern trolling relies on the logic and tactics of abuse” (p. 77).

Ehrenreich (2018) makes a similar point about the ways in which this rhetoric plays on negative culturally held beliefs about people at lower income levels:

“There are some obvious reasons why the poor and working class resisted the health craze: Gym memberships can be expensive; “health foods” generally cost more than “junk food.” But as the classes diverged, the new stereotype of the lower classes as willfully unhealthy quickly fused with their old stereotype as semi-literate louts... concern for the poor usually comes tinged with criticism. And contempt” (p. 98).

That many pieces of health and wellness content, misinformative or not, seem to make use of rhetorical strategies that perpetuate negative cultural stereotypes and tactics of abuse on an app whose largest audience is people ages 10-19 seems relevant to acknowledge as a characteristic of the content analyzed in this research.

The factor of gender is also relevant in these videos (see Figure R5). The creator making high protein stuffed French toast mentions in the video how much her kids love the recipe when she meal preps it for them every week. The creator informing their viewer about all the foods

they should avoid to achieve their “summer body goals” specifically calls out the “fat upper pelvic area,” a term typically used in reference to female bodies, which tend to carry fat in the lower abdomen. When considered with the data analysis result that the majority of the health and wellness related videos were found to have subjects or narrators who are women and that the activities subjects who are men participate in more frequently are exercising and providing “motivation,” health and wellness on TikTok seems to most frequently involve women making content targeted at other women, particularly young women and mothers. This would seem to support conclusions of previous research about how women tend to police their bodies and images of themselves on social media with more scrutiny as compared to men (Ryding & Kuss, 2020).

Conclusion

This research sought to explore how wellness-interested interaction with content recommended by the TikTok algorithm affects the quantity of misinformation a user may see over time, as well as the qualities of the misinformation a user may see over time. Assessment of the timing of occurrences of misinformation throughout the data collection period showed no clear trend in the quantity of misinformation seen by a wellness-interested user over time. Content analysis of 420 TikTok videos found that 15 of them included health and wellness misinformation, 25% of all the health and wellness content collected and analyzed. Additional aspects of the sample videos were discussed, including the presence of weight loss as a theme in much of the content, the rhetorical strategies utilized in many of the videos, the factor of gender, and the potential effects of these content aspects on TikTok users. Recommendations for future exploratory research on TikTok and on the topic of health and wellness misinformation were also given by the author.

Author's Note

I did not feel good while collecting data for this research. I did not encounter content that made me feel positive about my body, my health, and my choices while completing this project. I did not enjoy my time on TikTok within the scope of this research. As a young female person, I wanted to take the time to acknowledge that. At the same time, that is not, nor is this research, an excuse for TikTok to be written off as a net detriment to society and discounted entirely as a result. I knew my mental health would be negatively affected if I undertook this research. I did it anyway. TikTok is influential. TikTok is powerful. All social media platforms are. I say that as a person who was very young when social media was brand new, so neither I, nor my parents, nor really anyone understood how profoundly it would affect me throughout my adolescent years. The content I saw on social media as a teenager shaped how I thought about myself, how I thought about others, the decisions I made, and who I am today. It hurt me. It still hurts me. That more ambitious exploratory research into the content of social media platforms popular with young people does not exist has always surprised me for this reason. Young people live and breathe social media. When speaking to peers my age about this thesis, I received enthusiastic responses. They always wanted to know more about what I found. People my age have been hearing about how terrible social media is for our health, mental, emotional, physical, all our lives. That alone is not stopping us and will not stop young people in the future. A more complete understanding of *what specifically about* social media is harming us may give us the ability to collectively address those problems, maintaining the elements that are beneficial and reducing the elements that are harmful. That's what this research sought to understand more than anything: *what is the scope of this specific problem? Is there any way to address it in a way that prioritizes the realities of those living with this problem?* Social media platforms like TikTok

are a reality of life in the twenty-first century. Discounting them, not taking them seriously because they tend to be the realm of young people is a disservice to the future of humanity. I wish I was exaggerating.

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