



Systematic Review

# Research on Health Topics Communicated through TikTok: A Systematic Review of the Literature

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**Abstract:** TikTok has more than 1.5 billion users globally. Health and wellness content on the application increased by more than 600% in 2021. This systematic review seeks to summarize which fields within medicine have embraced researching health communication on the TikTok platform and the most common measures reported within this literature. Research questions include what categories of health topics on TikTok are investigated in the literature, trends in topics by year, and types of outcomes reported. Embase, CINAHL, Scopus, and Ovid MEDLINE databases were searched in March 2024. Eligible studies met four criteria: (1) investigated human health topics on TikTok; (2) conducted in the United States; (3) published in English; and (4) published in a peer-reviewed journal. Of the 101 included studies, 50.5% (N = 51) discussed non-surgical specialties, 9.9% (N = 10) discussed topics within surgery, and 11.9% (N = 12) discussed COVID-19. The number of papers referencing non-surgical topics spiked in 2023, and no increase was seen in the number of COVID-19 papers over time. Most papers reported a number of interactions, and papers about mental health were least likely to report accuracy. Our findings highlight several health topics with a wide breadth of research dedicated to them, such as dermatology and COVID-19, and highlight areas for future research, such as the intersection of cancer and TikTok. Findings may be influential in the fields of medicine and healthcare research by informing health policy and targeted prevention efforts. This review reveals the need for future policies that focus on the role and expectations of the healthcare worker in health communication on social media. Implications for clinical practice include the need for providers to consider an individual's perception of health and illness, given the wide variety of information available on social media applications such as TikTok. This review was pre-registered on PROSPERO (CRD42024529182).

**Keywords:** health; health communication; health education; medical information; public health; social influence; social media; systematic review; TikTok; user-generated content



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## 1. Introduction

TikTok is a short-form video-sharing social media platform that holds promise as a medical and public health tool because of its ability to target specific users with content based on their demonstrated interests. For the public, TikTok can be a tool for conveying health and first-aid information, whereas, for medical students and professionals, it can be a tool for teaching or refreshing high-yield concepts and life-saving procedures.

Effective health communication is a vital aspect of public health. Social media has become an emerging source of health information and misinformation in the United States (Moorhead et al. 2013). Among prominent social media sites, TikTok has recently skyrocketed in popularity and users, with more than 1.5 billion users globally (Iqbal 2024). Health and wellness content, in particular, increased by more than 600% in 2021, with more than 3.8 million healthcare providers active on the application (Iqbal 2024). Furthermore,

TikTok users are younger than the overall population, with 50% of active users falling between the ages of 13 and 24 (Iqbal 2024). A survey conducted in 2024 also found that among respondents from Generation Z, 1 in 3 reported using TikTok as their main source of health information (Belaveshkin 2024). Unfortunately, prior research has shown that online health information can be inaccurate, with some studies finding posts with health misinformation at rates as high as 87% (Suarez-Lledo and Alvarez-Galvez 2021). This statistic is particularly concerning as TikTok has a large proportion of young users who are more vulnerable to being influenced by this content (Comp et al. 2020).

Recent literature has explored the effectiveness of TikTok as a tool for public health communication on a wide array of health topics, including mental health, diabetes, and sexual and reproductive health (Basch et al. 2022d; Kong et al. 2021; Wu et al. 2023). One study found that mental health TikTok often focused on categories such as general mental health, personal experiences, relationships, depression/anxiety/suicide (Basch et al. 2022d). They also found that comments left on TikTok about mental health often offered support or validation, described similar experiences, and shared ways to cope (Basch et al. 2022d). Another study on diabetes content on TikTok found that healthcare professionals create/post the majority (69.3%) of posts about diabetes, and most of these posts discuss how to manage diabetes (67.8%) and outcomes of diabetes (66.8%) (Kong et al. 2021). Finally, recent research on sexual and reproductive health topics on TikTok found that creators discussing IUDs were often female-identifying (88.8%), and few were healthcare professionals (36.7%) (Wu et al. 2023). A large proportion of posts were negative experiences of IUD use (39.8%), and almost all posts highlighted pain and IUD side effects (Wu et al. 2023). The selected studies demonstrate the wide variety of health topics discussed on TikTok and highlight the need for a review that summarizes the current state of the literature regarding health information on TikTok.

The primary aim of this systematic review is to summarize the state of the literature regarding TikTok health research by synthesizing available literature into categories of health topics and medical specialties. Secondary aims include assessing trends of topics by year, the outcomes reported by each paper, and the relationships between variables reported and health topics discussed. To the best of our knowledge, this is the first review of its nature to explore the relationship between health and TikTok in the academic literature. Preliminary searches across multiple databases did not reveal any existing identical reviews on this topic.

This research has several important implications. It is both useful and necessary to know the current state of the literature regarding health topics on TikTok, particularly as a means to guide the development of future research and public health interventions. By understanding which specialties of medicine currently dominate research on TikTok as a health communication tool, gaps in the research can be identified and filled with the information learned from the established clusters of research. Furthermore, this paper serves to participate in several discussions regarding the use of social media as a health communication tool. More specifically, this review serves as a basis for exploring the current literature available on the usefulness, accuracy, and scope of existing research on health topics on TikTok. While this study encompasses several topics in medicine, the main goal of this review lies within the field of health communication. A wide variety of audiences may benefit from this research, including but not limited to academic researchers, public health practitioners, and laypersons. This review may also serve as a guide for future research on TikTok-mediated health communication by revealing what health topics have limited amounts of published literature dedicated to them. Furthermore, it is the hope of the authors that this research can be used as a means for advocacy for health policy interventions concerning social media, health communication, and combating the spread of health misinformation. The materials and methods section that follows will describe the search strategy, screening process, and data extraction process of this review. The results section will elaborate on topic distribution, year, content, and subcontent. Finally,

the discussion and conclusion sections will discuss the implications of this review in a broader context.

## 2. Materials and Methods

This systematic review determined the breadth of the literature on health-related TikTok posts in the United States by thoroughly searching several major databases and collecting broad information on the topics and measures reported by relevant primary research articles. The conduct of this systematic review was guided by the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) (Page et al. 2021a, 2021b). The study population was TikTok users in the United States, and the aim of this systematic review was to understand the state of the literature describing health-related topics these users may encounter on the platform.

### 2.1. Search Strategy

Papers included in this systematic review were primary studies describing human health content posted to TikTok that users in the United States might encounter. Limiting the scope of this systematic review to studies describing content that TikTok users in the United States might encounter was done because the content available to users varies by country (Yang 2022). To ensure the articles included in this systematic review reported only on content available to users in the United States, papers were excluded if they were authored by researchers not affiliated with U.S. institutions or if the paper did not discuss health content on TikTok in the context of U.S. culture or the U.S. healthcare system. In cases where some authors were affiliated with a mix of U.S. and non-U.S. institutions, their papers were excluded only if the author who collected the data from TikTok was affiliated with a non-U.S. institution. Papers were also excluded if they studied the effects that viewing TikTok posts may have on users, as this review was concerned with the types of content on TikTok being studied, not the effects of this content on users. Any paper that was not in English, that did not report primary data, or was not peer-reviewed was also excluded.

Relevant papers were identified by searching Scopus, Embase, CINAHL (via EBSCO), and MEDLINE (via OVID). Generally, each database was searched for research articles in English from the United States and containing both "TikTok" and "Health" as keywords, with each keyword truncated to maximize results. Specific queries for each database can be found in Appendix A. Scopus returned 167 articles, Embase returned 84 articles, CINAHL returned 41 articles, and MEDLINE returned 101 articles. All searches were performed in March 2024. This review was pre-registered on PROSPERO (CRD42024529182).

### 2.2. Screening Process

EndNote was used to automatically flag 146 search results as duplicates, which were manually verified by the authors before each was removed. This process left 247 unique results. The abstracts of each result were then screened by the authors to ensure each result met the inclusion criteria without any exclusion criteria. Using the software Covidence, two authors screened each abstract and voted on whether to include or exclude the result from further screening. Any conflicting votes were resolved at the discretion of a third author. Abstract screening identified 98 results as ineligible for inclusion. The full text of the remaining 149 results was then screened by the authors to ensure each result met the inclusion criteria without any exclusion criteria. Using the software Rayyan, two authors screened each full text and voted on whether to include or exclude the result from the final sample. Again, any conflicting votes were resolved at the discretion of a third author. Full-text screening identified 48 more results as being ineligible for inclusion. Of these, 13 were excluded for reporting on TikTok content from outside the United States, 11 were excluded for not being peer-reviewed journal articles, 8 were excluded for not containing primary data, 8 were excluded for reporting on the effects of viewing TikTok content rather than describing TikTok content itself, 7 were excluded for studying content only on social

media platforms that were not TikTok, and 1 was excluded for reporting outcomes that were inconsistent with the goals of this research. Full-text screening resulted in a final sample size of 101 research articles. The process of reaching this final sample is summarized in the PRISMA flow diagram (Figure 1). Table 1 shows a full listing of all included articles, along with their key features. “Topic” refers to the general topic under which the papers were categorized for analysis, whereas “subtopic” provides more specific information as to the content of the paper.

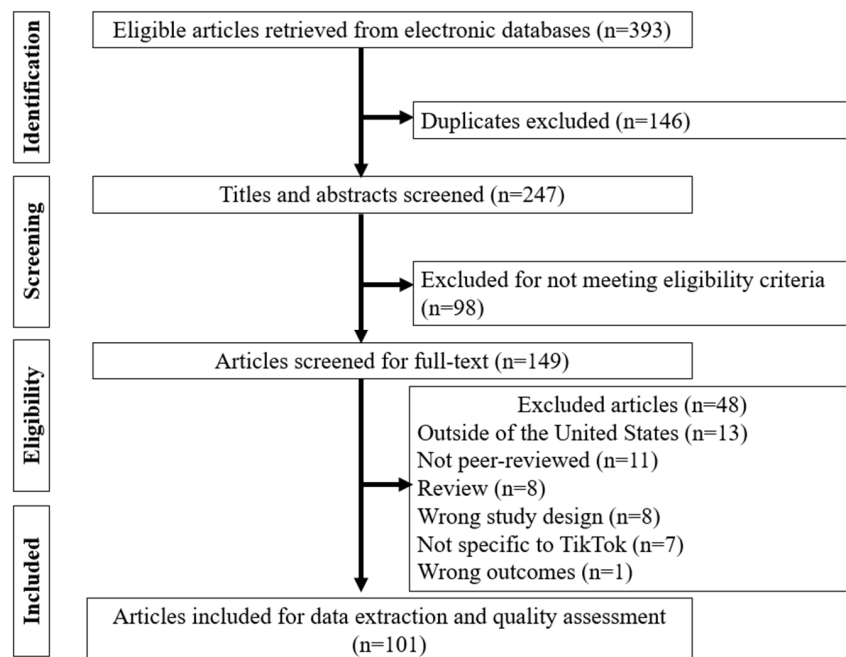


Figure 1. PRISMA flow diagram summarizing the literature search process.

Table 1. Full Summary of Included Studies.

Citation	Topic	Subtopic (If Applicable)
(Abdelnour et al. 2023)	Dermatology	Atopic dermatitis
(Abramson et al. 2023)	Prostate cancer	Prostate cancer screening
(Aflatooni et al. 2023)	Orthopedics	Scoliosis
(Alter et al. 2024)	Otolaryngology	Vocal health
(Anastasio et al. 2023)	Orthopedic surgery	Ankle sprain exercises
(Aragon-Guevara et al. 2023)	Autism and developmental disorders	Autism
(Babar et al. 2022)	Men’s health	Erectile dysfunction
(Baghdadi et al. 2023)	COVID-19	
(Basch et al. 2022d)	Mental health	
(Basch et al. 2022c)	COVID-19	Handwashing during COVID-19
(Basch et al. 2021a)	COVID-19	Mask use
(Basch et al. 2022a)	Sexual health	HPV vaccination
(Basch et al. 2022b)	Breast cancer	
(Basch et al. 2021b)	COVID-19	COVID-19 vaccines
(Basch et al. 2024)	Infectious disease	Monkeypox
(Bethell et al. 2023b)	Orthopedics	ACL rehabilitation
(Bethell et al. 2023a)	Orthopedics	Shoulder instability

Table 1. Cont.

Citation	Topic	Subtopic (If Applicable)
(Bharat et al. 2023)	Otolaryngology	Tonsillectomy
(Boatman et al. 2022)	Sexual health	HPV vaccine
(Carter et al. 2021)	Neurology	Concussion and head injury
(Costantini et al. 2022)	Ophthalmology	Contact-lenses
(Das and Drolet 2021)	Plastic/aesthetic surgery	Plastic surgeons
(Davis et al. 2023)	Mental health	#Whatieatinaday
(Diamond et al. 2023)	Dermatology	Telangiectasia
(Dubin et al. 2024)	Men's health	
(Evans et al. 2022)	Infectious disease	Antibiotic education
(Feng et al. 2023)	Audiology	Cochlear implant
(Firmalino et al. 2023)	Oral and maxillofacial surgery	Oral and maxillofacial surgery
(Fowler et al. 2022)	Sexual health	Sex education
(Gajjar et al. 2023)	Neurology	Cerebral aneurysm
(Galamgam and Jia 2021)	Dermatology	Isotretinoin/Accutane
(Gilmore et al. 2024)	Autism and developmental disorders	Autism
(Green 2024)	Mental health	Binge eating recovery
(Greene and Norling 2023)	Mental health	Digital therapeutics
(Grossman et al. 2022)	COVID-19	
(Gussner et al. 2022)	Orthopedics	Osteochondritis
(Hassan et al. 2023)	Gender-affirming surgery	Transgender health
(Hong and Woo 2022)	Dermatology	Turf burn
(Irfan et al. 2023)	Dermatology	Acne
(Isaac et al. 2024)	Gynecology and Obstetrics	Endometriosis
(Jafri et al. 2023)	Gastroenterology	Irritable bowel syndrome
(Jaime et al. 2023)	Gastroenterology	Celiac disease
(Janes et al. 2023)	Mental health	Therapy discontinuation
(Jiang et al. 2023)	Neurology	Epilepsy
(John et al. 2022)	Otolaryngology	Tonsillectomy
(Kanner et al. 2023)	Urology	Overactive bladder
(Khan et al. 2022)	Dermatology	Eczema
(Kim et al. 2023)	Vaccines	Anti-vaccination
(Lahooti et al. 2023)	Surgery	Weight loss procedure
(Li et al. 2021)	COVID-19	
(Lookingbill 2022)	Mental health	Non suicidal self-injury
(Lookingbill et al. 2023)	Mental health	Eating disorders
(Lorenzo-Luaces et al. 2023)	Mental health	Cognitive behavioral therapy
(Lovett et al. 2021)	Radiology	Radiology
(Lundy 2023)	COVID-19	COVID-19 vaccine misinformation
(McBriar et al. 2023)	Neurosurgery/spine surgery	Neurosurgery
(Minadeo and Pope 2022)	Weight loss	Weight-normative messaging
(Mordecai 2023)	Mental health	Anxiety
(Morse et al. 2024)	Otolaryngology	Otolaryngology

Table 1. Cont.

Citation	Topic	Subtopic (If Applicable)
(Munoz et al. 2024)	Mental health	Dissociative identity disorder
(Nair et al. 2023)	Gynecology and Obstetrics	Reproductive health experiences
(Naroji et al. 2024)	Gynecology and Obstetrics	PCOS
(Naseer et al. 2022)	Ophthalmology	Dry eyes
(Nickles and Haber 2022)	Dermatology	Skin psoriasis
(O'Donnell et al. 2023)	General health information	Health-related education
(Olsson et al. 2023)	Otolaryngology	Otolaryngology
(Olvera et al. 2021)	Neurology	Tics
(Om et al. 2021)	Plastic/aesthetic surgery	Aesthetic surgery
(Passarelli et al. 2024)	Gynecology and Obstetrics	Perineal lacerations
(Peipert et al. 2023)	Gynecology and Obstetrics	IVF
(Pfender et al. 2024)	Gynecology and Obstetrics	Hormonal contraceptive side effects
(Pleasure et al. 2024)	Gynecology and Obstetrics	Abortion
(Purushothaman et al. 2022)	“Getting nic sick”/antismoking	Nicotine poisoning
(Rossi et al. 2024)	Otolaryngology	Tonsillectomy
(Rossi et al. 2022)	Otolaryngology	Sinus surgery
(Rothchild et al. 2023)	Plastic/aesthetic surgery	Cosmetic facial injectable
(Sampige et al. 2024)	Ophthalmology	Ophthalmology
(Samuel et al. 2022)	Weight loss	
(Schwartz et al. 2023)	Sexual health	PrEP
(Shah et al. 2023)	Men’s health	Erectile dysfunction
(Siegal et al. 2023)	Urology	Varicoceles
(Song et al. 2022)	Gender-affirming surgery	Gender-affirming surgery
(Southwick et al. 2023)	COVID-19	COVID-19 vaccine promotion
(Southwick et al. 2021)	COVID-19	
(Stoddard et al. 2024)	Gynecology and Obstetrics	Contraception
(Subramanian et al. 2023)	Neurosurgery/spine surgery	Spine surgery
(Tabakin et al. 2024)	Urology	Bladder therapies
(Tabarestani et al. 2023)	Orthopedics	Achilles tendinopathy
(Tam et al. 2022)	Urology	Urinary tract infections
(Thang et al. 2023)	Dermatology	Acne treatment
(Tolson et al. 2023)	Dermatology	Port wine stain birthmarks
(Waterton and Lipner 2023)	Dermatology	Onychomycosis
(Wu et al. 2023)	Gynecology and Obstetrics	Intrauterine devices
(Xu et al. 2021)	Prostate cancer	Prostate cancer
(Yalamanchili et al. 2022)	COVID-19	COVID nurse
(Yang et al. 2024)	COVID-19	COVID-19 vaccines
(Yun et al. 2024)	Dermatology	Infantile hemangiomas
(Zea Vera et al. 2022)	Neurology	Tics and tic-like behavior
(Zehring and Chen 2024)	Chronic conditions/illnesses	Chronic illness
(Zheng et al. 2021)	Dermatology	Acne



### 2.3. Data Extraction

From the final sample of research articles describing TikTok posts that are related to human health and accessible in the United States, key features of each article were recorded. The data extracted from each article includes the year of publication, the medical field of focus, and the characteristics of the TikTok content described. To keep data organized, a standardized data extraction form was created using Google Forms. Data from each article was extracted by two authors working independently, and any inconsistencies were resolved by review from a third author.

Specific extracted data was condensed into broader categories to better communicate findings. Topics were delineated by medical specialty, as healthcare professionals tend to be most concerned with research within their field, and this method of categorizing by medical specialty allows for comparison between different fields, offering a means of comparison not found in primary studies. Papers were marked as reporting on the “number of interactions” if they reported the number of views, likes, comments, shares, or favorites among the TikTok posts they described. Papers were marked as reporting on the “diversity of sub-content” if they described TikTok posts within the article’s medical specialty of focus by the counts or frequencies of various topics discussed within the posts. Papers were marked as reporting on the “characteristics of video creator” if they reported on the age, gender, race, role, occupation, political affiliation, or any other personal characteristics of the user who posted each analyzed post. Papers were marked as reporting on the “accuracy” of TikTok content if they used validated measures, such as PEMAT or DISCERN scores, or if they used feedback from experts in the field to describe the validity of the information disseminated in the analyzed posts. Papers were marked as reporting on “broad qualitative themes” if they used grounded theory or any other inductive frameworks to describe broad themes observed among the TikTok posts they analyzed. The categorizations for the types of outcomes reported in each study were inductively constructed by the authors’ consensus based on common trends observed between the studies. Condensing the types of outcomes reported can inform what measures are necessary to report in future research to allow for standardized comparisons to be made between different publications. The implications of each extracted category are presented further in the discussion section. Quality assessments for each of the included articles were unnecessary because this systematic review is concerned only with the topics of each study and the types of data each study chose to report, not the data itself or its validity.

## 3. Results

Of the 247 unique studies identified, 98 studies were excluded during title/abstract screening, 48 were excluded during full-text screening, and 101 studies were deemed eligible (Figure 1).

### 3.1. Topic Distribution

Of the 101 studies included, 51 (50.5%) focused on non-surgical specialties. Within the papers discussing non-surgical specialties, 12 (23.5%) focused on Dermatology, 9 (17.6%) focused on Gynecology and Obstetrics, and 7 (13.7%) focused on Otolaryngology. Of the 51 studies that examined non-surgical specialties, topics included audiology, gastroenterology, infectious disease, ophthalmology, orthopedics, radiology, and urology. Twelve studies (11.9%) concentrated on information regarding COVID-19. Ten studies (9.9%) examined surgical specialties. The majority of the studies on surgery focused on information about plastic surgery ( $n = 3$ , 30.0%), neurosurgery ( $n = 2$ , 20.0%), and gender-affirming surgery ( $n = 2$ , 20.0%). Ten studies (9.9%) focused on mental health topics, and 3 (3.0%) concentrated on cancer types. Fifteen studies (14.9%) examined health topics classified as other, such as sexual health ( $n = 4$ , 26.7%) and men’s health ( $n = 3$ , 20.0%). A complete summarization of data on topic distribution is presented in Table 2.

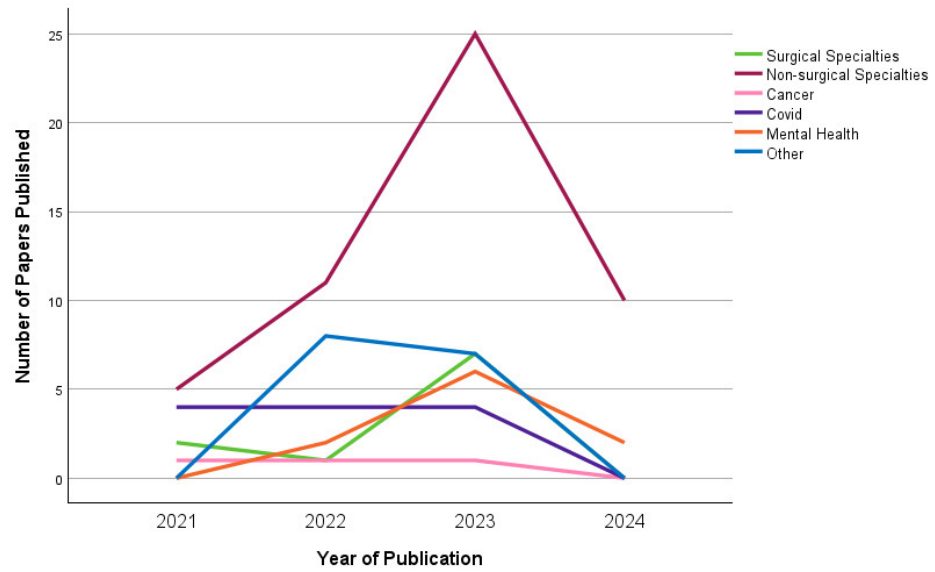
**Table 2.** Topic Distribution.

Topic	n	% Total	% within
Non-Surgical Specialties	51	50.5%	
Dermatology	12		23.5%
Gynecology and Obstetrics	9		17.6%
Otolaryngology	7		13.7%
Neurology	5		9.8%
Orthopedics	5		9.8%
Urology	4		7.8%
Ophthalmology	3		5.9%
Gastroenterology	2		3.9%
Infectious Disease	2		3.9%
Radiology	1		2.0%
Audiology	1		2.0%
Surgery	10	9.9%	
Plastic surgery	3		30.0%
Gender-affirming surgery	2		20.0%
Neurosurgery	2		20.0%
Oral and maxillofacial surgery	1		10.0%
Orthopedic surgery	1		10.0%
General surgery	1		10.0%
Cancer	3	3.0%	
Prostate cancer	2		66.6%
Breast cancer	1		33.3%
COVID-19	12	11.9%	
Mental Health	10	9.9%	
Other	15	14.9%	
Sexual health	4		26.7%
Men's health	3		20.0%
Autism and Developmental Disorder	2		13%
Weight loss	2		13.3%
Chronic Conditions	1		6.7%
General Health Information	1		6.7%
Antismoking	1		6.7%
Vaccination	1		6.7%

### 3.2. Topics by Year

A visualization of the distribution and the number of study topics by year is presented in Figure 2. The greatest number of studies about TikTok were published in 2023 (n = 50). Non-surgical specialties made up the largest number of studies (n = 51) and had the largest range of years within studies published about TikTok. In 2021, 5 studies were published about non-surgical specialties, 11 were published in 2022, 25 were published in 2023, and 10 were published in 2024. Studies that were categorized as Other had the smallest range of publication years, with 8 studies being published in 2022 and 7 in 2023. Notably, despite most of the public attention relating to COVID-19 occurring prior to 2022, the number of studies focusing on TikTok posts related to COVID-19 remained the same between 2021 and 2023 (n = 4, n = 4, n = 4). Similarly, publication years for studies examining cancer were evenly spread between the years 2021 to 2023 (n = 1, n = 1, n = 1). Studies categorized as Surgery or Mental health had the greatest number of studies published in 2023 (n = 7, n = 6, respectively), with the remaining studies split between the remaining publication years.

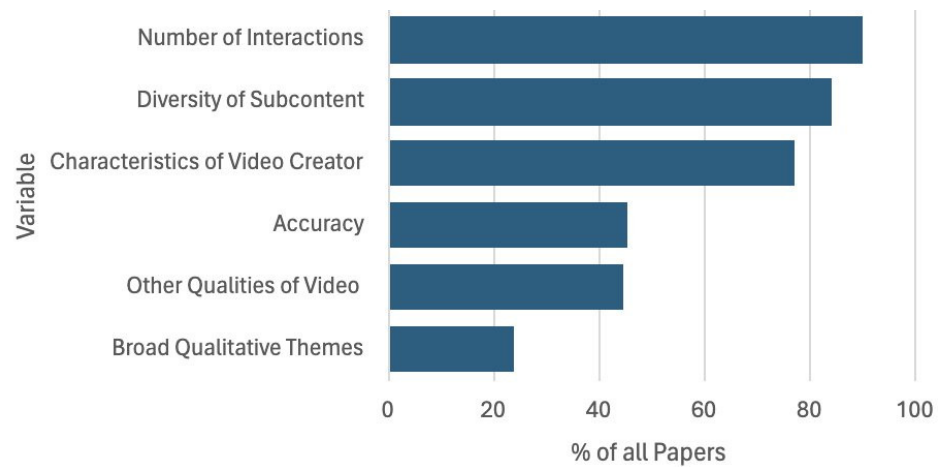




**Figure 2.** Publication Year Distribution by Topic.

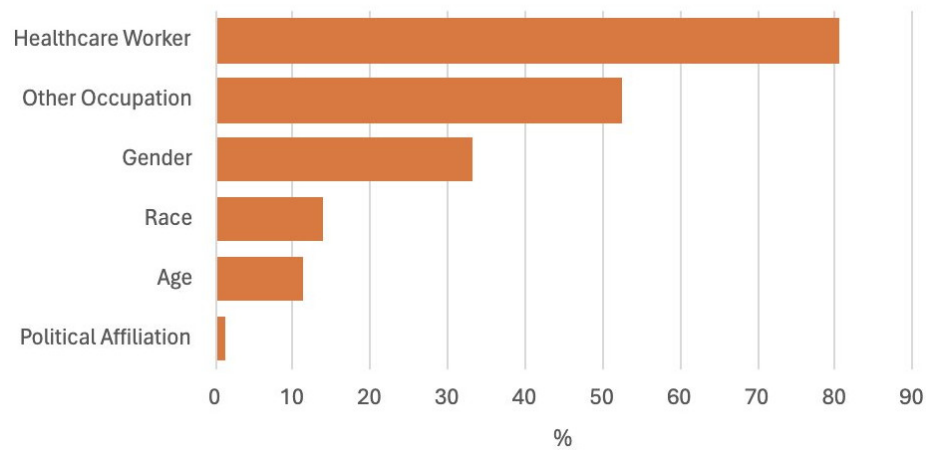
3.3. Reported Outcomes

Across all health topics, studies reported outcomes that could be divided into six distinct categories: number of interactions (90.1%, n = 91), diversity of sub-content (84.2%, n = 85), characteristics of video creator (77.2%, n = 78), accuracy (45.5% n = 46), other qualities of video (44.6%, n = 45), and broad qualitative themes (23.8%, n = 24) (Figure 3).



**Figure 3.** Percent of Papers Reporting Each Variable.

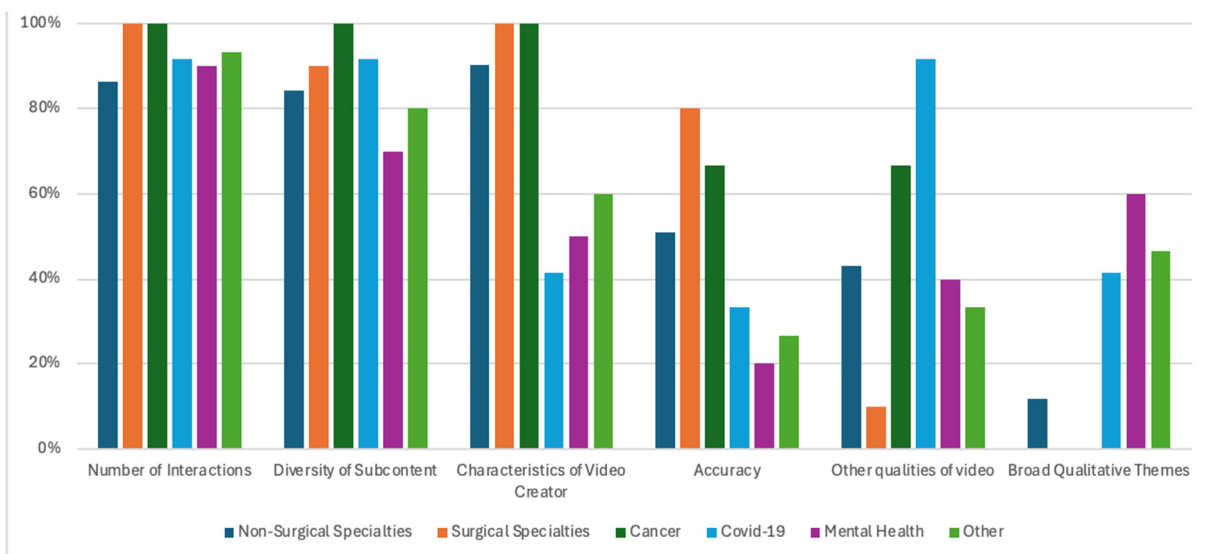
The third category, characteristics of video creators, reported in most papers, was broken down and summarized by characteristics reported in Figure 4. The characteristic most often reported was whether the video creator was a healthcare worker or layperson (80.8%, n = 63), as most studies were concerned with the source of information provided. Beyond whether the creator was a healthcare worker, characteristics also reported were the specific occupation of the video creator (52.6%, n = 41), gender (33.3%, n = 26), race (14.1%, n = 11), age (11.5%, n = 9), and political affiliation (1.3%, n = 1).



**Figure 4.** Specific Characteristics of Video Creator Reported.

*3.4. Reported Outcomes Stratified by Topic*

Of the six categories of reported outcomes, the number of interactions was the most frequently reported measure across all topic categories (Non-surgical specialties = 86.3%, n = 44; Surgical specialties = 100%, n = 10; Cancer = 100% n = 3; COVID-19 = 91.7%, n = 11; Mental Health = 90.0%, n = 9; Other = 93.3%, n = 14) (Figure 5). Across each topic category, diversity of sub-content was also reported frequently (Non-surgical specialties = 84.3%, n = 43; Surgical specialties = 90.0%, n = 9; Cancer = 100.0% n = 3; COVID-19 = 91.7%, n = 11; Mental Health=70.0%, n = 7; Other=80.0%, n = 12). Non-surgical specialties, which make up the majority of studies, are likely to report the number of interactions (86.3%), diversity of sub-content (84.3%), characteristics of video creator (90.2%), and accuracy (51.0%), but are less likely to report other qualities of the video (43.1%) or broad qualitative themes (11.7%). Studies that examined COVID-19 TikTok posts were less likely to report the characteristics of video creators (41.7%) but were more likely to report other qualities of the video (91.7%). The reporting of other qualities of the video varies more often depending on the topic area than other reported outcomes, being reported in 91.7% of papers about COVID-19 but in only 10.0% of papers about surgical specialties. Studies concentrated on mental health were most likely to report broad qualitative themes (60.0%) compared to quantitative data such as Accuracy (20.0%).



**Figure 5.** Reported Outcomes Stratified by Topic.

#### 4. Discussion

TikTok is a vibrant and growing social media platform, with millions of users accessing the application daily (Singh 2024). Previous systematic reviews have described the use of TikTok as a platform for health communication in relation to specific subspecialties of medicine, such as plastic surgery and dermatology (Zargaran et al. 2023; Barrutia et al. 2022). Other studies have looked at the impact of TikTok on user health, such as examining how over-use of the application can lead to mental health distress in teenagers (McCashin and Murphy 2023). The present review summarized the current status of the literature to identify what health topics are being explored and areas where more research is needed. The findings of this review have many implications for healthcare across the areas of health communication, public health, and health equity.

This review identified several medical specialties with a large number of papers dedicated to them, such as dermatology, obstetrics, and gynecology. Studies exploring the relationship between TikTok and areas such as cancer, radiology, and infectious diseases were surprisingly limited. This reveals the need for more research in the intersection of these areas. There have also been significant changes in topic representation over the years. This area of research is relatively new, with the earliest recorded papers being published in 2021. A large spike was seen in the number of papers published on non-surgical subspecialties in the year 2023, with 25 papers meeting the inclusion criteria for that year. This demonstrates an increased interest in the intersections between non-surgical topics and social media. Interestingly, the number of relevant papers published on COVID-19 has not increased over time. Rather, the steady decrease in publications from 2023 to 2024 demonstrates the decreased urgency seen in COVID-19 research over time.

Regarding the variables reported in the included studies, most studies reported the number of interactions (including likes, comments, shares, and views) seen on relevant videos. In relation to other popular social media sites such as Facebook and Instagram, TikTok has the highest engagement rate per post, coming in at 4.25% in 2022, as compared to Instagram's 0.6% rate and Facebook's 0.15% rate (Singh 2024). This sheds light on the importance of research in this field, given the platform's broad reach, but also raises questions as to the utility of a number of interactions as a reported variable. In 2023, users viewed 625 million videos in one internet minute (Singh 2024). This implies that the number of interactions on any given post is constantly changing as time passes, despite the stagnant nature of the number of interactions as a reported result. Another aspect to consider is TikTok's algorithm, which controls what videos are displayed to each viewer on the popular "for you" page. Video recommendations are based on video information, such as captions and hashtags, as well as a user's previous interaction patterns (other videos that one has liked or shared) (TikTok 2020). This highly influences the popularity that certain content topics are allowed to gain.

Another common variable reported by included studies was the characteristics of the video creators, with over half of the papers reporting the video poster's demographic information. Interestingly, while 80% of these studies reported if the content creator was a healthcare worker or not, less than 40% of included papers reported the creator's gender, and less than 20% reported their race. Statistics show that while more men use TikTok than women, 55.3% of content creators are female (Singh 2024). The lack of studies that reported these variables is surprising when considering the importance that gender and race have on one's perception of content. Psychological theories such as consensual validation and cognitive evaluation explain this phenomenon, detailing that individuals feel more comfortable with people who have the same physical traits as themselves (Hampton et al. 2018). This comfortability can make individuals more receptive to and trustworthy of health information being relayed by people of certain races or genders than others.

Variables reported by each study were also analyzed based on the health topic discussed. Interestingly, papers about COVID-19 were more likely to report other qualities about the video (such as the creator's affect, sound used, or props used) than papers about any other health topic. This finding reflects the emphasis placed on the effect of

COVID-19 health messaging. Some studies have found that positive messaging that focuses on solidarity increases the receptiveness of individuals to COVID-19 messaging (Chang et al. 2022). Others have noted the effects that variables like music and animation can have on enhancing the educational effectiveness of COVID-19 health information, specifically (Lutomia et al. 2022).

Another important finding was the likelihood that a paper reported the accuracy of the content within the included videos. Papers covering surgical specialties and cancer were the most likely to report findings around content accuracy, and papers concerning mental health topics were the least likely. This reveals an interesting divide and raises concerns about the ongoing stigma associated with mental health disorders. It has been shown that healthcare providers often engage in discriminatory behaviors and practices that lead to barriers to accessing equitable mental health care (Ungar et al. 2015). Additionally, these stigmatizations have been seen across social media, with implications on an individual's motivations to seek treatment (Competiello et al. 2023). Given that more than 3.8 million healthcare providers create content on TikTok, this massive platform creates opportunities for the dissemination of valuable health information as well as harmful misinformation (Iqbal 2024). Future studies concerned with mental health topics on TikTok should prioritize the accuracy of content included in their results.

These findings highlight several significant implications of this research. First, this study can be used as a tool to inform future research on this topic. This study highlighted several health topics with an abundance of research dedicated to them, as well as many with little to no research papers published. Furthermore, this research can be used as a tool when designing future studies around this topic. The thorough summarization of the outcomes reported by existing studies can be used to guide researchers on popular and effective methods for evaluating short-form video content. Researchers can also refer to these findings to create unique study designs that focus on outcomes that have been reported by a smaller number of papers. Another important implication of this research is that it influences public health efforts. Social media communication is a popular form of public health intervention and can be a powerful tool for reaching large amounts of people, especially niche populations such as youth. Existing research on the way that health topics are presented on TikTok, as well as who is presenting them, can be a useful tool for guiding these public health efforts. One way this research can contribute to these efforts is by highlighting where there are greater or lesser volumes of evidence related to health communication on TikTok, which can assist in formulating evidence-based public health research. Additionally, this research may serve as a guide for future public health interventions aimed toward the communication of health information specifically to TikTok's audiences. This review has revealed what topics are being most frequently explored by academic entities, as well as which related aspects are being prioritized in research. For example, based on our findings, one may find it most useful to focus an intervention on the popular topic of dermatology and may make an effort to ensure accuracy in content distributed by healthcare professionals on TikTok. Furthermore, interventions focused on the education of healthcare professionals may use these findings to justify the importance of the inclusion of social media as a means of health communication and dissemination, as our conclusions reveal that this is a topic that is prevalent and growing within the scientific literature. This paper summarized the existing research that is available and may be helpful for these means.

## 5. Conclusions

This review outlined the current state of the literature around the intersection of health and TikTok. The findings from this review have several implications for healthcare, including informing future public health communication efforts and ensuring health equity across social media. Strengths of this study include the robust nature of content search and the wide variety of reported results. Possible limitations include the exclusion of studies published outside of the United States and the lack of a formal quality assessment.

Additionally, the authors note that these findings may not be representative of the entirety of the literature available on health topics on TikTok nor all-encompassing of the entirety of health topics actually discussed on TikTok. Suggestions for future research include focusing on health topics with limited available literature, such as audiology and cancer, and prioritizing analysis of content creator demographics and video accuracy.

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## Appendix A

Scopus  
"tiktok\*" AND "health\*"

Embase  
"tiktok\*" AND "health\*" AND ('article'/it OR 'article in press'/it) AND [english]/lim  
AND 'united states':cy.

CINAHL  
"tiktok\*" AND "health\*"

MEDLINE  
"tiktok\*" AND "health\*"

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