From influence to persuasion: How cancer misinformation has altered on short video platforms like TikTok

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TikTok is a short video platform that has grown rapidly since its launch in 2016. Increasingly used as a search engine by younger demographics, TikTok is an important source of health information that can inform decision-making about illness, treatments, and remedies for disease. In this article I draw on empirical research to show that there has been a shift from influence to persuasion in the ways that cancer misinformation circulates online. I argue that TikTok incentivizes cancer misinformation due to the prominence of the algorithm on the user experience, the capacity for unknown creators to gain visibility, and the accessibility of monetization on the app.

en years ago, I began researching health and wellness misinformation following the Belle Gibson scandal (1). Gibson, a former Australian wellness influencer, established a loyal following by documenting her alleged battle with a rare form of terminal brain cancer online. Initially, Gibson's story was publicly shared on a blog, The Whole Pantry, subsequently developed into a book for Penguin and an app for Apple. Legitimized by these global corporations, and amplified by the media, Instagram was the primary social media site where she built her brand. Employing the handle @healingbelle, Gibson curated her cancer journey online, sharing the ups and downs of her recovery, photos of her child in nature, and innocuous health advice. Gibson was young, friendly, and relatable. She didn't fit the stereotypical image of a cancer patient and in many ways that was part of her appeal. She became a beacon of hope for her followers, a sign that they too could overcome illness and disease through adopting a healthy lifestyle and eschewing impure foods.

Gibson is an interesting example to commence with as she exemplifies the ways in which influence formerly operated online. She was one of the original wellness influencers on Instagram, even though the term was not part of contemporary parlance at the time. Gibson's personal brand was carefully curated through a series of self-presentation techniques that conveyed the appearance of accessibility, authenticity, and autonomy (2). Together, these "three A's" have become the foundation on which health and wellness influencers establish trust and intimacy with their followers online (3). Social media provides the capacity for direct exchange between a celebrity

and their followers in the form of replies, reposts, and likes. By occupying the same social media sites as her followers, Gibson gave the impression of accessibility; by disclosing her personal struggles and setbacks she gave the impression of authenticity. Crucially, as an alleged cancer survivor, whose lived experience of recovery was premised on rejecting conventional medicine, she gave the impression of autonomy from institutional power and the medical establishment. Together, this appearance of accessibility, authenticity, and autonomy created a compelling brand. However, it took time for Gibson to establish an online following, and a degree of skill, luck, and perseverance involving regular posts, and carefully curated captions and photographs.

A decade later, the ways in which cancer misinformation spreads online have profoundly changed. Much of this is due to the popularity of short video platforms, such as TikTok, YouTube Shorts, and Instagram Reels. TikTok is a short videosharing platform that has grown rapidly since its launch in 2016. Launched as Douyin in China then rebranded as TikTok in other regions following its international launch in 2017, reaching 1.59 billion monthly active users in 2025 (4). TikTok is popular among younger demographics. The dominant age group is 18-24, accounting for 39% of users (4). According to Pew Research, most US teens use the platform, with about 6-in-10 teens aged 13 to 17 (63%) using TikTok, including 57% who use it daily and 16% who say they're on it "almost constantly" (5). Renowned for dance videos, challenges, and compilations, the platform has become a popular mode of communication among younger demographics. Although the platform presents itself as an entertainment site with the "mission is to inspire

creativity and bring joy" (6), TikTok is increasingly used as a search engine among younger demographics (7). The app hosts user-submitted videos and provides a platform for people to share content about a range of topics from celebrities to politics and mental health. TikTok affords users the capacity to search, livestream, and be recommended content on the app (8). The app enables users to comment on other videos through three technological affordances: the Green Screen, the Stitch, and the Duet, which allows users to incorporate clips of another user's content into their videos. Despite incorporating features of older social media apps (e.g., Vine's looping videos), what makes TikTok unique is the prominence of the algorithm on the user experience (9). On TikTok, the user experience is driven by the "For You" algorithm (10). When a user opens that app, the first thing they encounter is the "For You Page" (FYP) where the algorithm recommends an endless scroll of popular videos that become more personalized as it detects which content engages the user. Unlike Facebook, Twitter, and Instagram, which originally adhered to a friend and follower-based network involving users actively following accounts, TikTok's algorithm determines which content is surfaced to users on their feed and by whom. The result is that users are frequently exposed to content by unknown creators and those they do not actively follow. The algorithm has a disproportionate impact on TikTok users because unlike other social media apps, viewing video content characterizes the user experience.

TikTok has altered the scale of cancer misinformation that people are exposed to online. A study I conducted in 2024 to assess the quality of cancer cure videos on TikTok found that most cancer cure videos promoted unproven cancer remedies: soursop tea, apricot kernels, oils, and Fenbendazole (dog dewormer) (11). The study simulated someone diagnosed with cancer using TikTok to search for cancer remedies, analysing the top 50 videos each week for four weeks when searching for "cancer cures" on the app. In total, 200 TikTok videos were analysed. Of these 200 posts, 163 (81%) depicted unproven cancer remedies. The techniques employed to legitimize these alleged cures included the following:

- personal anecdotes of cancer survivors sharing their stories of recovery;
- contrarian doctors revealing a miracle cure for cancer;
- conspiracy theories exposing the truth about corrupt medical institutions and miracle cures being suppressed by the establishment:
- spiritual messages about the importance of faith, religion, and mindset to overcome illness and disease; and
- informative posts relaying information, frequently via a voice over, to sell a product or service. Posts in this category often featured visual references to nature and

an account with an authoritative sounding name (e.g., the Institute for Heath).

These five overlapping codes provide insight into the ways in which content creators legitimize their claims and, more specifically, the modes of persuasion employed to encourage users to purchase unproven cancer cures.

Cancer misinformation on TikTok exemplifies the shift from influence to persuasion. When Belle Gibson established her personal wellness brand in 2013-15, her social media profiles comprised evocative blog posts and carefully curated captions and photographs that were used to communicate her story. Together, these written and visual modes of communication contributed to her online persona and the parasocial relationship she cultivated with her followers: a one-sided emotional and imaginary relationship that public figures establish with their audience via the media. Short video platforms, such as TikTok conversely, prioritize brevity. In 2024, the average length for a TikTok video was 35-55 seconds (12). The brevity of videos affords users the capacity to create and consume a higher volume of content, algorithmically recommended by a variety of content creators, many of whom are unknown to the creator. Very few cancer cure videos on TikTok feature influencers or celebrities. Most are produced by relatively unknown creators, who gain visibility by employing a strong emotional hook to engage viewers and game the recommender algorithm. Rhetorical questioning featured in my study as a common mode of persuasion and an emotional hook, employing the content creator's cancer survival story (e.g., "Do you want to know how to heal cancer?", "Do you know how I know you can beat the odds?") as evidence to legitimize their miracle cancer cure. Informative posts similarly used rhetorical questions to pique curiosity and interest: "Did you know that soursop leaves kill cancer cells naturally without any side effects?", "Have you ever used RSO [Rick Simpson Oil] to cure a disease?", "Struggling with cancer? Discover the power of Source App! Transform one leaf into a cancer fighting elixir: Soursop leaf is 10,000 times better than chemotherapy". Conspiracy theories were a persuasive way to capture attention because they implied that there was a cure for cancer that was being suppressed by the medical establishment: "The cure for cancer has always existed, but the truth is hidden away from you for a reason", "The cure for cancer was discovered 42 years ago, but has been suppressed several times", "This is soursop fruit and it cures cancer but the health industry doesn't want you to know that because they make billions from chemo than helping you recover from chemo", "This man found a cure for cancer...He cured cancer and was jailed for healing people with herbs...He had beaten the High Priests of Medicine". Videos of this kind are often accompanied by evocative music and

leaked it", "He knew too much".

Another significant shift regarding the prevalence of cancer misinformation on TikTok is the numerous routes to monetization. Health and wellness influencers typically earn money through a combination of advertorials, sponsored posts, and affiliate marketing for commercial brands (13). Those promoting cancer misinformation, like Belle Gibson, capitalized on selling their own products and services in the form of books, courses, and apps (1,2). Prior to the launch of TikTok, it was uncommon to see prominent health and wellness influencers using social media to sell alternative medical treatments directly to their followers. As public figures, doing so would risk content moderation, demonetization, and suspension. Content creation has fundamentally changed with TikTok and the emergence of short video platforms. TikTok provides a variety of different avenues for content creators to earn money. TikTok's creator fund enables popular creators to monetize their content. In addition to earning revenue from subscriptions, affiliate marketing, and partnering with brands, another opportunity for monetization is the TikTok shop: an e-commerce store where creators can sell products directly through the app. In 2025, TikTok Shop's global gross merchandise value reached US\$ 18.6 billion, driven by direct in-app purchases and live commerce (4). Popular product categories include beauty, technology, and fashion, marketed by creator-led content. In my own research, I found that numerous videos on TikTok relay the content creator's personal story of recovery from cancer to verify the efficacy of a product or claim. Most cancer cure videos on TikTok simultaneously centre the viewer through reference to the second person singular/plural: "You" (e.g., "Do you want to know how to heal cancer?"), using an emotional hook to capture attention before directing users (often via a flashing caption) to a link in their bio to purchase a product or service. Linktree was the most common tool used to sell unproven cancer cures. Linktree is a "link in bio" tool. Launched in 2016, it enables users to link their social media profiles and unify digital ecosystems through the link-in-bio category (URL or QR code) that acts as a personalized landing page. Linktree functions as a creator's website to sell products and services. It enables creators to monetize their audience by selling products, requesting payments for services, and collecting revenue from affiliate links on their Linktree. As a direct form of monetization, Linktree facilitates online sales because customers do not need to leave the app to purchase a product. Most products advertised on cancer cure videos on TikTok were direct sales for alternative health products: soursop tea, apricot kernels, and natural oils. Online coaching services promising to cure cancer were also prevalent on the app. Some links directed

feature a viral hook to create intrigue and attract attention: "I users to conspiratorial books to purchase on Amazon, and others directed users to their GoFundMe donations page where they could fundraise for a particular cause. Tracing how cancer cures are monetized on TikTok demonstrates the intricate ways in which misinformation spreads online.

> In the last decade, there has been a shift in the techniques used to promote cancer misinformation online. Health and wellness influencers traditionally used social media platforms, such as Instagram, to build a compelling brand. Their capacity to influence their followers to purchase a product or service relied less on a single post and more on the parasocial relationship they cultivated with their audience over time. Influencers still occupy a central part of the creator economy. The launch of TikTok in 2016, and other short video platforms has, however, altered the ways in which cancer misinformation spreads online. Rather than spend years building an influential personal brand, content creators spreading cancer misinformation on TikTok use a series of persuasive techniques to capture and monetize attention. Brief, simple messaging makes content stick by distilling a concept into 60 seconds or less. Visual and verbal hooks are used to create curiosity, drama, and intrigue and make content compelling. Many of the creators identified in my study violate TikTok's community guidelines and terms of service. Although they can be suspended and demonetized, what makes regulating these accounts more challenging is that they are managed by an industry of content creators rather than a small number of prominent influencers. The barriers to entry to create an account and sell unproven cancer cures are lowered on TikTok because the algorithm enables a new account with a small number of followers to gain the same level of visibility as an established account with hundreds of thousands of followers. The result is a shift from influence to persuasion, from a smaller number of influencers promoting cancer misinformation to an industry of relatively unknown creators who use persuasive hooks and platform features to monetize unproven products and services as miracle cures for cancer.

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