Content Analysis of TikTok Videos by Selected Nigerian Healthcare Professionals

Onuorji, Susan Chinazo 3a Kayode Oseni Street Martins Akute, Ogun State susanonuorji@gmail.com

Abstract

Since the COVID-19 pandemic in 2019, TikTok has become a popular social media site across the globe for delivering healthcare messages and engaging health-seeking users, particularly the younger audience. In Nigeria, TikTok has also witnessed an influx of health professionals who leverage the platform to share health information in short video formats and connect with their audiences. However, with TikTok being relatively new in the Nigerian healthcare scene, more needs to be documented about how these health professionals use the platform to engage with individuals. Hence, this study examines TikTok videos shared by selected Nigerian healthcare professionals and the engagements on those videos. The study used quantitative content analysis to analyze the 15 most-viewed TikTok videos shared by 5 Nigerian healthcare professionals selected based on predefined criteria. Findings from this study showed that these healthcare professionals use TikTok to share valuable health information, offer health advice, dispel myths, and promote daily health routines. Various techniques, such as humor, self-recorded content, and trending social media formats, were used in these videos, leading to high user engagement. However, engagements on the sampled videos varied depending on the professional's follower count and posting frequency. Findings also showed that none of these professionals included their health credentials on their TikTok account profile and that only one account was verified. This suggests a critical gap in establishing authenticity on the platform among the selected Nigerian healthcare professionals. Based on these findings, the study recommends, among other things, that health professionals should include their medical certifications on their profiles and seek verified badges to augment their credibility on the platform, helping users identify them as reliable sources of evidence-based information.

Keywords: TikTok, social media, health communication, Nigerian healthcare professionals

Introduction

The advent of social media has completely reshaped how individuals access and disseminate information, including health-related topics. Globally, the health sector has witnessed a significant increase in the use of social media to inform and educate the general public on different medical issues and conditions (Ikpi *et al.*, 2022). Specifically, healthcare professionals use social media to disseminate health communication messages in numerous impactful ways, such as raising health awareness (Mohammed *et al.*, 2021), providing medical information and advice (Chen & Wang 2021), promoting doctor-patient education (Chirumamilla & Gulati, 2021), and encouraging healthy behaviors (Ikpi & Undelikwo, 2020).

Launched in 2017, TikTok is a micro-video creating/sharing platform that allows users (TikTokers) to create, watch, and share infotainment videos within and outside the TikTok community (Zhang et al., 2021). With more than 1.5 billion active users, it is today, one of the most popularly used social media platforms worldwide (Iqbal, 2024). According to a report from Q2, 2022, TikTok currently has the highest average daily usage of nearly 95 minutes, surpassing other social media giants like YouTube and Instagram (Chan, 2022). Against this backdrop, many healthcare professionals and health institutions across the globe are increasingly moving to this platform to reach and ensure this large and niched demographic can access the health information they need on the app, where they spend most of their time (Moors, 2024).

In recent years, TikTok, with its engaging short video format, has become a popular destination for health information (Siegal *et al.*, 2022; McQuater, 2023). Given its high popularity and usage, particularly among young adults (Bruno, 2020; Mandzufas *et al.*, 2023), Generation Zs and millennials are undoubtedly primary consumers of health and wellness content. According to a study by Gordon (2020), one-third of the Gen Zers in the United States trust TikTok more than their doctors and prefer to consult the platform to obtain information on health issues. In another recent survey conducted among 1,000 people aged 18-27, 56 percent of the respondents confirmed that they use TikTok to seek health and wellness advice, and 1 in 3 cited TikTok as their main source of health information (Bradley, 2024). Beyond merely seeking advice, some TikTok users proceed to act on the information they find. For instance, a study by Ogilvy Health found that 37 percent of TikTok users across the European Union buy prescriptions off-the-counter based on recommendations they have seen on TikTok. These findings suggest that TikTok is not just a valuable source of health information but has the potential to influence user's medical decisions, especially the Gen Zers.

A search performed within the TikTok application revealed that #cancer (2.7m videos), #diabetes (1.0m videos), #autism (2.3m videos), #skincare (20.4m videos), #fitness (37.5m videos), #mentalhealth (16.7m videos), #diet (3.9m videos), and #covid19 (16.2m videos) are some of the most viral health topics searched, discussed and shared globally in short-video formats, within its community. These health-related hashtags have been used collectively in over 100 million posts and have gained several hundred million views (as of the time of writing this study). Meanwhile, in Africa, health discussions are centered on hashtags like #mpox (45.5 videos), #malaria (20.5k videos), #tuberculosis (16.5k videos), #HIV/AIDS (14.5k videos), #hypertension (46.8k). They highlight the unique health conditions prevalent in Africa (World Health Organization, 2023a: 2023b).

In the past, younger generations relied on Google to self-diagnose their health symptoms, but today, they have turned to TikTok instead. This shift supports the growing assertion of Haung (2020) that 'TikTok is the new Google for Gen Z', with a recent report confirming TikTok as the most popular search engine among Gen Zers, dethroning Google, the world's top search giant (Adobe Survey, 2024).

The platform also allows healthcare professionals to leverage its easy-to-use video creation and editing features in creating and sharing information on public health, healthcare, and their practice (Bruno, 2020; Moors, 2024). For example, in Nigeria, TikTok is fast gaining popularity, with over 23.84 million citizens flocking to the platform for better creative expression and access to information (Nwafor & Nnaemeka 2023; Data Reportal, 2024). It is currently the third most-favorite social media platform in the country, right behind YouTube (28.5m), and Facebook (36.7m) as of Q3, 2023, with the majority of its user base being under the age of 35 (Data Reportal, 2024).

Due to its ubiquity, TikTok has become home to Nigerian doctors, nurses, healthcare institutions, and health content creators. Popular healthcare professionals in this space with the highest followings are Dr. Aproko (@aprokodoctor), and Nurse Trendy (@nursetrendy), with 1.6 million followers and 1.1 million followers respectively (as of the time of writing this study). Over the years, these influencers have been able to establish themselves as thought leaders and influencers on the platform by providing valuable health information in engaging and entertaining short videos, empowering their audience to take decisive actions regarding their health and well-being. (Fekurumoh, 2022).

Despite its popularity in the healthcare sector, TikTok is still a relatively new social media platform. Consequently, there is limited research on how the platform is being used by healthcare professionals, particularly in developing countries like Nigeria. Most of the existing knowledge is based on trends and anecdotal evidence (Aliogo, 2021), thereby creating a gap that needs to be filled. A robust empirical study of how TikTok is changing the delivery of healthcare messages and engaging users, especially younger demographics, is crucial. For these reasons, this research study seeks to analyze TikTok videos shared by selected Nigerian healthcare professionals and to assess how well these videos engage individuals.

Objectives of the study

The study has the following objectives. They are to;

- 1. understand how Nigerian healthcare professionals use TikTok
- 2. identify the types of video messages shared by Nigerian healthcare professionals on TikTok.
- 3. determine the users' engagement with these videos.

Research questions

This study was based on the following research questions;

- 1. How do Nigerian healthcare professionals use TikTok?
- 2. What are the types of video messages shared by Nigerian healthcare professionals on TikTok?
- 3. What is the users' engagement with these videos?

The Evolution of Health Communication

The concept 'health communication' emerged in 1975 as a sub-discipline within the field of communication, following its official recognition at the convention of the International Communication Association (Harrington, 2015: Rashid, 2022). By 1997, it was further categorized as a distinct field in public health education and health promotion by the American Public Health Association (Rashid, 2022). Since then, the term has gained widespread popularity and use among health professionals, communicators, and scholars across the globe (Hans, 2021).

Over time, health communication has evolved beyond a multidisciplinary field of study into a powerful tool for promoting both personal and public health (Devi, n.d), with one of its primary objectives being to influence individuals and communities to make better health choices. According to the Centers for Disease Control and Prevention and the National Cancer Institute, as cited in Lawrence, *et al.* (2024), health communication is the study and use of various communication techniques to inform and influence individual and community decisions to enhance better health outcomes.

It plays a crucial role in all aspects of health, particularly, in disease prevention, health promotion, health education, healthcare policy, and business of healthcare, while also enhancing the quality of life and health within communities (Afsana, 2022). In its early stages, health communication relied solely on traditional methods such as posters, bulletin boards, and newspaper articles, which were often delivered as public service announcements (Dumbrell & Steele, 2017). These static, one-way communication tools were the mainstay for conveying health-related messages to the public, focusing on broad and general messages intended to reach a wide audience without the ability for immediate feedback or interaction.

However, with recent technological advancements (such as the current traditional media and new media), the field of health communication has completely undergone significant changes (Dumbrell & Steele, 2017). Gone were the days when transmission of information was one-way and limited by geographical boundaries. These advancements have not only broadened the reach and accessibility of healthcare messages but also enabled more personalized and targeted content, thereby increasing real-time interactions between health experts and the general public (Mahoney, et al., 2015; Baker, 2024).

With the proliferation of social media, people can now easily share, access, and engage with health-related content from anywhere around the world. Social media platforms like X, Facebook, WhatsApp, Instagram, YouTube, and TikTok are highly interactive, breaking traditional barriers of time and distance. In addition to that, their virality feature allows shared content to go viral quickly and reach a wider audience.

Given its effective interactivity and viral nature, social media has grown to become widely recognized and accepted by the public and healthcare stakeholders as a key source and distribution vehicle for health communication (Stellefson, *et al.*, 2020).

TikTok and Health-Related Messages

TikTok's rapid growth and widespread usage can largely be attributed to its ability to provide entertainment, social interaction, and real-time updates, especially during the COVID-19 lockdown when young users turned to the platform for engaging video content to

stay connected and informed (Klug, et al., 2023; Turuba, et al., 2023). Initially created as a music-based entertainment app for lip-syncing, and dancing, TikTok has since evolved to feature diverse content, including news, politics, and health-related information (Turuba, et al., 2023).

As a short video-sharing platform, TikTok enables users to create and share videos ranging from 15 seconds to 10 minutes (Zhang, et al., 2021). One of the platform's defining characteristics is its advanced video editing tools and pre-set templates, which allow users to easily incorporate music and special effects into their created videos (Zhang, et al., 2021). TikTok also employs a sophisticated algorithm that recommends content tailored to each user's interest based on their interactions with previous posts, including factors such as viewing time, likes, shares, saves, and comments (Klug, et al., 2023). These inherent features, including its vast young user base, comedic content, and social learning dynamic, make TikTok a powerful tool for brands and promoters to reach and engage with audiences effectively (Mandzufas, 2023).

Moreover, as younger users continue to choose video content over written information, healthcare professionals are leveraging TikTok to create unique and relatable health-related content and extend their core professional values (Bruno, 2020). In fact, the platform is fast becoming an integral part of the healthcare ecosystem on social media, enabling professionals in the health field to interact directly with the public on a more personal level (Zhu, 2020). This direct interaction enables healthcare providers to foster stronger connections with their audiences, while sharing health information, which is particularly important where misinformation on social media platforms is rampant.

As a public forum, TikTok enables healthcare professionals to address certain public health concerns, offer medical information, debunk myths, and encourage behavioral change in bite-sized videos. These short videos, often packaged as creative and humorous clips (Stein, et al., 2022), are also used to educate the public on specific health topics such as coronavirus diseases (Klug, et al., 2023) mental health (Bash, et al., 2022), diabetes (Kong, et al., 2021), dry eyes (Naseer, et al., 2022), sexual and reproductive health (Stein, et al., 2022).

For instance, a study by (Kong, et al., 2021) on "TikTok as a Health Information Source: Assessment of the Quality of Information in Diabetes-Related Videos" found that healthcare professionals comprised the majority of creators (69.3%) of posts regarding diabetes, and most of these posts discuss how to manage diabetes (67.8%) and outcomes of the disease (66.8%). Another study by (Naseer, et al., 2022) on the cross-sectional analysis of dry eye content on TikTok revealed that TikTok is a powerful platform to educate patients with dry eye conditions. A similar study by (Stein, et al., 2022) "Examining Communicative Forms in #TikTokDocs' Sexual Health Videos" showed that doctors on TikTok share sexual-related content. According to the researchers, these physicians make their content in a relatable manner by incorporating dance, lip-syncing, comedic performances, trendy challenges, and popular hashtags via the comedic, communal, and interactive communicative forms, and the memetic dimension of form.

In Nigeria, healthcare professionals are also leveraging the popularity of the platform among Gen Zers to share valuable information on healthy living and demystify certain health issues in the country (Aliogo, 2021). By creating health content, physicians on TikTok "help people navigate topics like sexual education and post-partum lifestyle that would typically be taboo subjects in some Nigerian social settings" (Aliogo, 2021). One popular medical doctor on TikTok, Damian Avar, with the username @therealsabidoctor, (as cited in Aliogo, 2021),

attributed these stereotypes to the lack of health awareness among some Nigerians. The medical doctor, however, observed a discernible improvement in the health-seeking behaviors of his audience on the platform. He also emphasized the role of TikTok in reducing the stress associated with online teaching for doctors compared to other social media platforms, thereby enhancing public health knowledge.

As TikTok's usage continues to evolve in Nigeria's health sector, this study aims to analyze how healthcare professionals in the country use TikTok to deliver health information and engage young audiences.

Theoretical Framework

Media Richness Theory (MRT) is a communication theory developed by Richard L. Daft and Robert H. Lengel in the mid-1980s as an extension of information processing theory (Begum, 2022). Daft & Lengel (1986) proposed that technology-based channels of information are richer text sources than other mediums and suggested that the richness of a medium enhances the effectiveness of any communication. The theory posits that communication is more effective when richer media are used by communicators (Dennis & Kinney, 1998 as cited in Begum, 2022) and that richness means the ability of the medium to transmit the information from the sender to the receiver. According to Begum (2022), "something written by someone that can not attract more people than videos because this shows the gestures and expressions of the other person while saying those words. Media richness theory is about richness in communication and that the communication process should involve a rich source for effective communication (p. 4)."

Dabbous (2017), argues that media richness is a function of the following characteristics: ability to handle multiple types of information, ability to establish a personal focus, ability to utilize natural and multiple languages, and ability to facilitate rapid feedback. In line with this argument, TikTok is a rich media that is capable of delivering personalized content for each user via its powerful recommendation algorithm; providing a wealth of information through unlimited videos available in simple languages; presenting messages in a concise and engaging format; with instant feedback options through comments and interactive features such as 'duets and stitches'.

These features enable viewers to easily grasp the message conveyed in videos which include a combination of visuals, voice-overs, and sound effects. TikTok also provides infotainment videos in about 75 different languages to its diverse audience in over 160 countries. This theory is therefore relevant to this study because it seeks to understand how health professionals use TikTok to produce and disseminate engaging health-related information via videos for effective communication. Understanding the richness of TikTok can provide researchers, health providers, and communicators with insights into its potential as a valuable social media tool for health communication in Nigeria.

Methods

This research adopts the same quantitative content analysis method as (Martínez-Sanz, *et al.*, 2023) to measure specific features of health-related video content shared by selected Nigerian healthcare professionals on TikTok over a specified period. The analysis focuses on quantifiable patterns, trends, topics, and engagement metrics such as views, likes, comments, and shares.

A sample of 15 videos, created and shared by selected Nigerian healthcare professionals on TikTok were examined based on predefined criteria. To determine the sample, specific keywords such as "Nigerian nurses," "Nigerian doctors," and "Nigerian pharmacists" were used in TikTok's search bar. This search suggested profiles that were further filtered based on key parameters to ensure homogeneity and consistency. These criteria were:

- 1. The TikTok account must be managed by a licensed healthcare practitioner and identified as an active personal and professional profile in Nigeria.
- 2. The account should regularly post health-related messages, with a minimum of one video every two weeks, between January to June 2024
- 3. The account must have at least 50,000 followers.

After the search, 5 accounts that met the established criteria were selected: @aprokodoctor, @nursetrendy, @iamcomicfreak, @pharmsavi, and @drfredostar. Each of these accounts has a community of over 50,000 followers on TikTok (*Table 1*) as indicated by the data collected in October 2024.

Table 1. Selected Healthcare professionals analyzed

Creator	Account	Profession
Egemba Chinonso Fidelis	aprokodoctor	Medical doctor
Ijeoma Obijekwu Immaculate	nursetrendy Nursetrendy Reposts Sicked	Nurse
Oluwole Jebooda	iamcomicfreak Pharm Comic Freak Follow Message & 1588 Following 65.9K Followers 733K Likes PHARM COMIC FREAK SUBSCRIBE TO MY YOUTUBE LINK BELOW ♥ CONSULTATIONS IN DM	Pharmacist
Saviour Ikin Akpa	pharmsavi pharmsavi Follow Message 92 Following 113.8K Followers 745.3K Likes OFFICIAL HANDLE OF PHARMSAVI EX-BBN S7 HM CELEBRITY PHARMACIST IG: Pharmsavi III Videos tì Reposts Liked	Pharmacist
Frederick Unuigbokha	doctorfredostar Dr Frederick Unuigbokhains & Following Message 1303 Following 364.4K Followers 1.7M Likes MEDICAL DR backup @Doctorfredostarofficial □: doctorfredostar@gmail.com Ø linktr.ee/fredostar_md	Medical doctor

Source: Analysis of TikTok accounts from the selected 5 Nigerian healthcare professionals

From the selected profiles, a total of 469 videos were posted during the specified period, with 6 photo posts excluded. For this study, 15 videos were selected for analysis,

comprising the three most-viewed videos from each profile (*Table 2*). These videos were posted between January and June 2024.

Table 2. Videos analyzed

S/N	Video Post Messages	Username	URL
1	How to tighten the vagina	@aprokodoctor	https://vm.tiktok.com/ZMhhrL17n/
2	The color of your urine		https://vm.tiktok.com/ZMhhrSXVx/
3	Stop using this cream		https://vm.tiktok.com/ZMhhrS4wE/
4	You are in danger if you ignore these signs during your period		https://vm.tiktok.com/ZMhhhb8ac/
5	What nobody told you about Condom	@nursetrendy	https://vm.tiktok.com/ZMhhhGWj8/
6	Nurses after disposing of urine, fluids, and feces of patients		https://vm.tiktok.com/ZMhhhmAfk/
7	Gonorrhea is not toilet infection		https://vm.tiktok.com/ZMhhkYAvt/
8	Be careful with paracetamol	@iamcomicfreak	https://vm.tiktok.com/ZMhhh7X4r/
9	My professional opinion about fertility		https://vm.tiktok.com/ZMhhhn75q/
10	If you have ulcer, avoid this		https://vm.tiktok.com/ZMhhkjP1D/
11	White Vitamin C or Orange Vitamin C	@pharmsavi	https://vm.tiktok.com/ZMhhhwFso/
12	Stop forcing your vagina to smell like roses		https://vm.tiktok.com/ZMhhkaGwn/
13	Pregnant women and cold water myths		https://vm.tiktok.com/ZMhhk5Gdt/
14	Symptoms of kidney diseases	@drfredostar	https://vm.tiktok.com/ZMhhkhDmh/
15	Before you get married, here are the important tests you should take		https://vm.tiktok.com/ZMhhkmUsE/

Source: List of the sampled videos obtained from the selected TikTok accounts.

Data collection

An analysis worksheet was created to store extracted data from the sampled TikTok videos and categorized them into basic account information, quantified engagement, video

content, and video format (*see Table 3*). Specifically, account information captured basic details such as the account's username, number of followers, added websites/social media links, and verification badge. Quantified engagement measures the number of views, likes, reposts, saves, shares, and comments. For video content, the different health topics, major themes, settings, emotions, and character(s) displayed in the video were recorded. Meanwhile, the video format covered the techniques used in the video, in terms of language, hashtag, music, and subtitle.

A total of four main categories with 19 subcategories were used for the video analysis, as detailed in *Table* 3, adapted from (Bruno, 2020). The coding process was carried out by a single researcher over the course of one week, and the data were cross-checked to ensure accuracy and consistency.

Table 3: Coding scheme

Account Information					
Username	The unique name of the account profile that uploaded the video				
Official Verified Account	A blue checkmark (verification badge) on an account profile, is typically used to determine if the account is verified or not.				
Credentials Listed in Bio	The list of health credentials listed in the bio of an account profi				
Bio Link	The link in the account bio; social media link, website link, or Linktree for housing multiple social media links				
Posting	The posting frequency for each account profile is grouped into three; 5-7 posts/week –high, 3-4 posts/week – moderate, and 1-2 posts/week low.				
Quantified Engagement					
Number of Likes	Total number of likes on a video				
Number of Shares	Total number of times a video was shared				
Number of Saves	Total number of saves a video received				
Number of Comments	Total number of comments on a video				
Number of Views	Total number of views a video received				
Video Content					
Video Type	Types of videos used can be categorized into different groups: cartoon, documentary, sitcom, TV program excerpt, news report excerpt, self-recording, visual demonstration, etc				
Emotion	The emotion displayed in a video; excited, serious, humor or no specific emotion				
Characters	The character(s) involved in a video; healthcare professionals, celebrities, and other members of the public,				
Video Themes	The range of health themes discussed in a video.				
Video Form					
Background Music	The background music used in a video, which includes no music, music selected from the TikTok music library, and original music				
Talking/No Talking/Lip Synching	The character(s) in a video were talking, not talking, or lip-synching				
Subtitles/Text	The subtitle techniques used to convert speech in a micro-video to texts				
Language Feature	The language used in a video; English, Pidgin English, and other local dialects				
Hashtag	The hashtag used in a video				
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Source: Coding scheme adopted from Bruno, 2020

Result

The result of the study is presented below:

Account Information

Having a strong account profile (which includes a username, bio description, and URLs) across all social media platforms is crucial because it helps users broaden their online exposure, and establish their credibility (Patel n.d). Of the 5 TikTok accounts that were analyzed, 4 included their medical titles or abbreviations (e.g. dr., pharm.) in their account username (*see Table 4*). These accounts are; @aprokodoctor (Egemba Chinonso Fidelis), @dr.fredostar (Frederick Unuigbokha), @pharmasavi (Saviour Ikin Akpa), and @nursetrendy (Ijeoma Obijekwu Immaculate). Gartner (2020, as cited in Bruno, 2020, p.7), opined that "creating a robust social media allows individuals to be discovered by others who could benefit from the association".

Table 4: Account information of selected Nigerian health professionals using TikTok

Username	Verified	Credentials		Avg. Post Per Week	Posting Frequency
@aprokodoctor	Yes	No	Yes (Website)	4	Moderate
@nursetrendy	No	No	Yes (IG)	6	High
@drfredostar	No	No	Yes (YouTube & Linktree)	5	High
@pharmsavi	No	No	Yes (IG)	1	Low
@iamcomicfreak	No	No	Yes (Linktree)	2	Low

Source: Data obtained from the TikTok accounts of the selected healthcare professionals

In addition to creating a strong username, some healthcare professionals use their TikTok accounts to further promote their personal websites or other social media accounts (Bruno, 2020). Findings from the above table show that all the TikTok accounts analyzed included at least one link in their account bio, which varied from personal websites to other social media handles (YouTube, Instagram, and Linktree). This finding indicates that these healthcare professionals are leveraging social media tools to share health-related messages with the general public in numerous ways.

Like other social media platforms, TikTok offers verified badges to help users make informed choices about the content they watch or the accounts they follow. A verified badge is a blue checkmark displayed next to an account's username, signifying that the account is authentic and belongs to the user it represents. Accounts eligible for the verification badge must meet certain criteria such as; being active, authentic, having a complete profile, being notable, and secured with two-step verification. Findings from this study show that only 1 out of the 5 analyzed accounts, specifically @aprokodoctor, has a verified badge, indicating that this account meets all the verification criteria (Table 4).

The data also shows that none of the 5 TikTok accounts analyzed listed their health certifications such as RN, LPN, MBBS, MPH, or MPSN. With the rise of "patient influencers", and health misinformation online, it is crucial for healthcare professionals using TikTok to visibly include their certifications and credentials on their account profile. This

distinction will help them distinguish themselves from ill-informed influencers, thereby enhancing their authenticity and online reputation.

Additionally, the table above reveals that all 5 TikTok accounts analyzed are active users, posting an average of once per week. Notably, the 3 most active accounts are the ones with the most followers: @nursetrendy (1.1m followers) and @drfredostar (365k followers), averaging 5 and 6 posts per week, respectively, while @aprokodoctor, who has the largest following at 1.7m million, averages 4 posts per week. This data suggests that there is a correlation between consistent posting and high followings. *Quantified Engagement*

Quantified Engagement for this study is defined as the measurement of the overall influence and user engagement of video content posted by an account on TikTok. It encompasses key metrics such as views, likes, comments, reposts, and saves. Analysis of the 15 sampled videos reveals that these videos received significant engagement across the stated metrics.

Specifically, the sampled videos garnered over 18 million views in total (*Table 5*). The video with the least views had 77,100 views, while the video with the highest views reached 4.6 million views, at the time of coding. The total number of likes received across the 15 TikTok videos exceeded 13.9 million, ranging from 10,600 to 458,900 per video.

In terms of comments, the videos received a total of 22,271, with the lowest number of comments at zero and the highest at 6,055. Meanwhile, the total number of saves and shares on the videos were 100,145 and 60,071, with minimums of 161 and 27, and maximums of 42,500 and 27,200, respectively. This high number of views, likes, comments, saves, and shares on these videos indicates that health communication videos on TikTok have the potential to reach a wide audience and substantially engage them.

Table 5: Distribution of Quantified Engagement Metrics

Range	Number of Followers	Number of Views	Number of Likes	Number of Comments	Number of Saves	Number of Shares
Maximum	1,700,000	4,600,000	458,900	6,055	42,500	27,200
Minimum	65,900	77,100	10,600	0	161	27
Median	113,800	579,800	38,700	828	2,270	1482
Average	668,820	1,240,633	92,676	1,485	6,676	4,471
Sum	3,344,100	18,609,500	1,390,133	22,271	100,145	67,071

Source: Data obtained from the TikTok accounts of the selected healthcare professionals

Video Content

The Video Content category was divided into four subcategories: types of video posted, common video themes, specific emotions displayed, and characters featured. In terms of video type, self-recordings and visual presentations took the lead, with 5 each out of 15 videos (Table 6). Self-recordings typically featured healthcare professionals as the main subjects, either standing or sitting in the video frame. In contrast, visual presentations involved health professionals using props, whiteboards, or other visual aids to deliver health messages. For example, a pharmacist with the username @iamcomicfreak posted a video where he used a whiteboard to educate viewers about kidney diseases and their warning signs. Similarly, a medical doctor and popular health influencer, with the username @aprokodoctor used props to demonstrate ways women can tighten their vagina walls. These instances highlight how some healthcare professionals are leveraging TikTok to simplify and explain complex health information engagingly and comprehensively.

Meanwhile, the remaining video types among the 15 analyzed were dancing and comedy skits, with 3 being dance videos and 2 being comedy skits (*Table 6*). For instance, a nurse with the username @nursetrendy posted a video of herself humorously mimicking nurses' behaviors before and after disposing of patients' urine and feces. Another example is from a pharmacist with the username @pharmsavi, who posted a video of himself dancing while listing out foods stomach ulcer patients should avoid. In another video, @pharmsavi comically acted out a skit alongside another character, debunking common misconceptions about White Vitamin A and Orange Vitamin C. These findings suggest that some healthcare professionals are being more creative with their health content delivery on TikTok.

Table 6: Distribution of Video Types, Emotions, and Characters for the Sampled Videos

Video Message	Video Type	Emotion	Character
How to tighten the vagina	Visual Demonstration	Humor	Health professional
The color of your urine and what it means	Visual Demonstration	Humor	Health professional
Stop using this cream	Visual Demonstration	Humor	Health professional
You are in danger if you ignore these signs during your period	Self-recording	Serious	Health professional
Symptoms of kidney diseases	Visual Presentation	Serious	Health professional
Before you get married, here are the important tests you should take	Visual Presentation	Serious	Health professional
Pregnant women and cold water myths	Self-recording	Humor	Health professional
Gonorrhea is not toilet infection	Self-recording	Humor	Health professional
Be careful with paracetamol	Self-recording	Humor	Health professional
My professional opinion about fertility	Self-recording	Humor	Health professional
Nurses after disposing of urine, fluids, and feces of patients	Dance	Humor	Health professional
What nobody told you about condom	Dance	Humor	Health professional;
If you have ulcer, avoid this	Dance	No emotion	Health professional
White Vitamin C or Orange Vitamin C	Skit	Humor	Health professional and celebrity
Stop forcing your vagina to smell like roses	Skit	Humor	Health Professional and celebrity

Source: Data obtained from the TikTok accounts of the selected healthcare professionals

Also, of the 15 sampled videos in *Table 6*, 11 evoked humor, 3 showed seriousness, and 1 displayed no emotion. For example, @aprokodoctor used satire and humor in a video to raise awareness about the ban of a widely used bleaching cream and its harmful effect on the liver, urging viewers to stop buying the product. He also incorporated funny memes to humorously convey the health message. Similarly, pharmacist @iamcomicfreak, posted a video addressing the abuse of drugs, specifically paracetamol for relieving menstrual cramps and as a food additive, warning viewers about its hepatotoxic effects in a humorous manner. These findings show that the majority of videos analyzed use humor and satire to convey health-related messages.

As stated in the literature review, TikTok is notably characterized by its humorous and satirical content. Furthermore, a study by Zhu, *et al.*, (2020) found out TikTok users, who are predominantly Gen Zers, prefer health information delivered in an entertaining and humorous manner instead of the conventional academic and formal content. This suggests that employing humor in health communication could be potentially effective in reaching and educating younger audiences on the platform.

Regarding character, 13 out of 15 analyzed videos featured healthcare professionals, while the remaining 2 featured popular celebrities, with no representation of the general public. Celebrities, being highly influential figures, have the power to shape people's health choices (WHO, 2021). Due to their vast popularity and influence, they tend to draw public attention to certain health issues and encourage positive behavioral change. However, the limited number of celebrities or public figure appearances in this study suggests a missed opportunity for healthcare professionals to broaden their health communication messages and potentially influence viewers' health-related decisions.

In the fourth subcategory, the most common video theme was health information, appearing in 8 out of the 15 videos (*Table 7*). Videos with this theme featured healthcare professionals explaining symptoms, diagnoses, procedures and outcomes. For example, a medical doctor with the username @drfredostar posted a video of himself explaining the signs and symptoms of kidney disease. Another example is a video of @pharmasavi, explaining the potential dangers that come with abusing emergency contraceptives in the female body.

The second common video theme was health tips and advice, with 4 out of 15 videos covering this topic. Videos within this category featured healthcare professionals sharing quick, practical recommendations or suggestions. For instance, another video by @aprokodoctor showed the various ways women can tighten their vaginal walls. One other video in this category posted by @nursetrendy, provided unpopular facts about condoms and how to use them properly.

Health myth-busting ranked third in the video theme category, with 2 out of 15 videos, addressing this topic. Videos with this theme featured healthcare professionals debunking common myths and misconceptions. For example, one video by @drfredostar dispelled myths about drinking cold water during pregnancy with other pregnancy-related misconceptions.

Lastly, @nursetrendy's video where they mocked how nurses behave before and after disposing of a patient's feces is the only video in the daily routine and health image promotion theme -- the fourth video theme category. Videos with this theme often feature healthcare professionals explaining or showcasing their daily life routines or happenings in their various professions. These findings show that healthcare professionals employ a variety of content themes in their health communication videos to engage their audience.

Table 7: Distribution of Video Theme Content for the Sampled Videos

Video Theme	Video messages				
Health Education	The color of your urine & meaning, Stop using this cream; You are in danger if you ignore these signs during your period; Be careful with paracetamol; My professional opinion about fertility; Avoid this if you have ulcer; Stop forcing your vagina to smell like roses. Symptoms of kidney diseases; Before you get married, here are the important tests you should take				
Health Tips & Advice	How to tighten the vagina; What nobody told you about condoms; Gonorrhea is not toilet infection				
Health Myth-busting	White Vitamin C or Orange Vitamin C; Pregnant women and cold water myths				
Daily Routine & Health Image Promotion	Nurses after disposing of urine, fluids, and feces of patients.				

Source: Data obtained from the TikTok accounts of the selected healthcare professionals

Video Form

The Video Form category revealed information regarding the format in which the 15 sampled videos were presented (*Table 8*). 9 out of the 15 videos were accompanied by different types of music; 7 included original music, 2 included music from TikTok's library, while the remaining 7 had background music.

Table 8: Distribution of Video Formats for the sampled videos

Video Message	Language	Music	Subtit le	Talking/No Talking	Hashtag
How to tighten the vagina	3 3	Original Music	Yes	Talking	Nil
The color of your urine and what it means	English	Original Music	Yes	Talking	#uti #urine
Stop using this cream	English	Original Music	Yes	Talking	#bleaching #skincare
You are in danger if you ignore these signs during your period	English	Nil	Nil	Talking	#fyp #viral #fyppppppp #menstruation #period #nursetrendy #nurseoftiktok
Symptoms of kidney diseases	Pidgin English	Nil	Nil	Talking	#goodlifenasense #doctorfredostar
Before you get married, here are the important tests you should take	Pidgin English	Nil	Nil	Talking	Health professional
Pregnant women and cold water myths	Pidgin English	Nil	Nil	Talking	#goodlifenasense #doctorfredostar
Gonorrhea is not toilet infection	Yoruba & English	Nil	Nil	Talking	#viral #fypge #makemefamous #fy #trending #fypppppppp #viral #health #fyp #merrychristmas
Be careful with paracetamol	Yoruba & English	Nil	Nil	Talking	#infec #2024 #infec #fy #viral #fypage #trending #trend #thoughts
My professional opinion about fertility	Yoruba & English	TikTok Music	Yes	Talking	#comicpharm #comicfreak #fyyyyyyyyy#fypp ppppp#foryoupage #trendig #pharmacist #tiktok #pharmfreak #iamcomicfreak #naijatiktok
Nurses after disposing urine, fluids, and feces of patients	English	Original Music	Nil	No Talking	#fyppp #viral #tiktokcreators #content #nurseoftiktok

					#nigeriannurses
What nobody told you about condom	English	TikTok Music	Nil	No Talking	#condom #sex
If you have ulcer, avoid this	English	TikTok Music	Nil	No Talking	#pharmsavi #ulcer #viral #fyp
White Vitamin C or Orange Vitamin C	English & Pidgin English	Original Music	Nil	Talking	#pharmsavi #vitaminc #fyp #supplements
Stop forcing your vagina to smell like roses	English & Pidgin English	Original Music	Nil	Talking	#pharmsavi #unsualpyna #vaginahealth #fyp #viral

Source: Data obtained from the TikTok accounts of the selected healthcare professionals

Of the 15 videos analyzed, 12 included talking, while the remaining 3 were non-verbal. Additionally, among the 12 verbal videos, 4 were delivered entirely in English, while a majority (8 out of 15) incorporated local dialects such as Pidgin English and Yoruba. Pidgin English and Yoruba are one of the most common native languages and as such, it is no surprise that some healthcare professionals are engaging with their audience in these local dialects as well.

As for subtitles and hashtags, data in the table above shows that only 4 videos included subtitles, while a majority of the analyzed videos (14 out of 15) had at least one hashtag. Of the 14 videos with hashtags, 3 had no subtitles relating to the health topics discussed. The remaining 11 videos featured specific health hashtags like #ulcer #uti #vaginahealth #skincare #sex #condom #drugbuse. Findings indicate that healthcare professionals are aware of the role hashtags play in increasing the reach and exposure of their content to targeted audiences.

Discussion

This study, in line with its objectives, examined the TikTok videos shared by selected Nigerian healthcare professionals and assessed how well these videos engaged individuals and the general public. Having presented the data collected in the study above, these research findings are discussed based on the research questions of the study.

The first question sought to understand how Nigerian healthcare professionals use TikTok. Findings from this study indicate that all the healthcare professionals analyzed use their TikTok accounts regularly to create and share videos for various health communication purposes. These professionals not only focus on providing health-related information but also leverage the platform's unique audio-visual features to creatively connect with their audience. Some employ funny memes, humor, and satire to convey serious health messages in an entertaining and relatable manner, while others incorporate local dialects like 'Pidgin English' and a bit of 'Yoruba' to attract non-English speakers. This suggests that TikTok is becoming an increasingly important tool in the healthcare sector, enabling these healthcare professionals to interact with users on a personal and engaging level.

In addition to posting videos, these healthcare professionals are utilizing distinctive usernames and optimized account profiles to attract consumers seeking health information on TikTok. A majority of these healthcare professionals include links to their personal websites and other social media accounts (such as Linktree, YouTube, and Instagram) on their TikTok profiles, thus extending their health communication reach beyond TikTok. Often, some of these healthcare professionals incorporate self-recordings and visual demonstrations into their videos or utilize dancing and celebrity appearances to engage younger demographics. They also employ social media trends, such as music, subtitles, and hashtags, to attract new followers and increase user engagement.

However, despite the fact that all the selected TikTok accounts had huge followings on the platform, none listed their health credentials on their profiles, and only 1 was verified. This finding suggests that TikTok may hold great potential as a medium for health communication, however, discerning which account to follow for credible and evidence-based information may present a challenge.

The second research question focused on identifying the types of video messages shared by Nigerian healthcare professionals. This study revealed four main categories of health message types shared on TikTok by the analyzed professionals to improve public health and well-being. Listed in order of popularity, these categories include health information, health tips and advice, myth-busting, and daily routine and image promotion. The health topics covered within these categories range from sexual and reproductive health to drug abuse, urinary tract infections, ulcers, kidney diseases, contraceptives, pregnancy myths, premarital health tests, women's health, and skincare. These topics highlight some of the prevalent health conditions that affect Nigerians, particularly its younger population.

On the other hand, the third research question examined the user engagement on the TikTok videos shared by Nigerian healthcare professionals. User engagement is measured by the number of likes, comments, shares, views, and saves that each video received. The study revealed that the analyzed videos garnered significant engagement from users, which varied based on the professional's account followings and post frequency. The 2 healthcare professionals who posted regularly (between 5 to 6 times per week), had more audience interactions on their posts, compared to those who posted 1 to 2 times per week. This suggests that consistent posting there may be a correlation between posting frequency and high user engagements on TikTok.

The research also found that videos with humor, dancing, and trending songs received significant engagement. Anecdotal evidence suggests that young adults tend to respond well to content that aligns with their entertainment preferences, making Tiktok, with its emphasis on humor and comedy, their preferred platform of choice. Therefore, engaging with young adults on this platform might require healthcare professionals to adopt lighthearted approaches in their video content delivery.

This study has certain limitations worthy of mention. The research design of this study was quantitative content analysis and the sample was small, which limits generalizability. Accurately measuring true viewership was also challenging, as users could watch a video multiple times. Furthermore, the study focused entirely on TikTok, without considering how healthcare professionals use other video-sharing platforms for health communication purposes. Another limitation is that the study did not explore why users consult TikTok for health information, or how they perceive and respond to content shared by

Nigerian healthcare professionals. Future research could examine the motivations behind TikTok usage for health-related content, and its impact on users, using a larger sample size. This would provide a more comprehensive understanding of TikTok's role as a health communication tool in Nigeria.

Conclusion

This study highlights the growing adoption of TikTok among Nigerian healthcare professionals as a platform for health communication. The study found that selected Nigerian healthcare professionals use TikTok to share videos that contain valuable health information, offer health advice, debunk myths, and promote daily routines and professional image. The research also identified the different techniques these professionals employ to creatively deliver health messages on TikTok and boost reach and engagement. These techniques such as humor, self-recording, visual demonstrations, hashtags, and other social media trends were used to garner significant user engagements, varying with individual's account followings and post frequency.

However, the research revealed an absence of medical certifications on all the TikTok profiles of the healthcare professionals examined, and that only one account had a verification badge. This lack of credentials and verification indicates a significant gap in establishing credibility among the selected healthcare professionals. To address this gap, healthcare professionals should prioritize enhancing the credibility of their TikTok profiles by seeking verification badges and clearly displaying their medical certifications. This will help users identify reliable sources of health information and further promote the dissemination of evidence-based content.

Furthermore, the limited use of celebrities and public figures in the sampled health-related videos suggests a missed opportunity for Nigerian healthcare professionals. Collaborating and leveraging the influence and visibility reach of these prominent figures could greatly amplify the reach of health messages, shape people's health choices, and promote positive behavioral changes among TikTok users, ultimately enhancing the overall impact of health communication in Nigeria.

Recommendations

Based on the findings of this study, the following recommendations were made;

- 1. Healthcare professionals on TikTok should have a strong username, engaging bio, and relevant URL links, relating to their profession to enhance their online visibility and credibility.
- 2. Healthcare professionals should obtain verified badges and display credentials on their TikTok profiles to help users identify credible health information sources and foster the spread of evidence-based content.
- 3. Healthcare professionals and institutions should collaborate with celebrities and public figures to amplify health message delivery on TikTok and engage broader audiences.

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