"THE MALARIA VACCINE SHOULD BE DEAD ON ARRIVAL": EXPLORING HEALTH DISCOURSE AND MISINFORMATION ON KINGSCHAT, A NIGERIAN PENTECOSTAL SOCIAL NETWORKING PLATFORM

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Introduction

Social media discourse has a multitude of offline impacts, including in the important domain of public health and health behavior. In particular, prior work shows that social computing processes and the ecology of social networks can encourage the spread of misinformation and conspiratorial engagement[1, 2, 3]. This has been illustrated during the SARS-CoV-2 pandemic, as misinformation and conspiracy theories disseminated in social media platforms influence individual choices of whether to take precautionary measures and seek appropriate treatment. Concurrently, internet usage worldwide has continued to grow, with the largest share of new users coming from the Global South[4]. Unfortunately, major global social media platforms such as Twitter/X, Facebook, Instagram, and Reddit, have made changes to the accessibility of their data to researchers, making it notably and even prohibitively difficult to center research on these online spaces. Exploring alternative social media platforms, particularly those situated in the Global South, is therefore critical in order to understand and monitor online communication, including health-related discourse.

This study is the first of its kind to collect and study data from the KingsChat platform, a social media network arising from the Christ Embassy megachurch in Nigeria (self-reported as having over 13 million members globally)[5]. The platform was selected due to the documented digital influence of Christ Embassy's leader, Pastor Chris Oyakhilome, and his history of spreading misinformative and conspiratorial health claims, including conspiracy theories linking COVID-19 with 5G technology, nanochips, and New World Order power structures[6, 7, 8]: a recent study on the COVID-19 conspiracy theory connecting coronavirus and 5G technology found that Pastor Chris was the central source for 15% of stories in Nigerian news articles on the topic, and that the 10 most widely shared versions of his sermon on the topic appeared on 397 digital spaces with a combined total of at least 43.6 million followers[9]. Pastor Chris and Christ Embassy have also been investigated internationally for their "healing streams" broadcasts, in which Pastor Chris claims to cure medical diseases through attendance at the session and praying over participants. While faith healing in Pentecostal Christianity is noted to be well aligned with traditional African religions and worldviews[10, 11], religious leaders preaching that faith alone protects one's health and that government public health measures are not necessary shows "the negative influence of religion on health. . . and have serious implications for disease control especially in Nigeria"[12].

Therefore, the aim of the present study is to more deeply understand, describe, document, and analyze health discourse on the KingsChat platform, particularly for the presence of health misinformation. Research questions guiding the exploratory analysis include: What are the key topics of discussion in the platform within the health domain? What proportion of health content contains misinformation? What are the misinformative health narratives circling? Who are the influencers prominent in the platform, and how do they post about health content? What external domains are linked to within the platform, and what can be learned about the media ecosystem at play?

Findings

Data was harvested through a new user account that only collected data from accounts and posts visible to anyone on the platform. The account's interactions were automated with Selenium, and text was scraped from two subsets of posts: 1) all posts matching selected search keywords pertaining to health topics, with new keywords chosen iteratively to capture health content while reducing noise; and 2) all posts, content-agnostic, from accounts of pastors holding leadership positions such as senior pastors, regional pastors or executive board members of Christ Embassy. This second subset aimed at analyzing messaging from the 'authority' of the church, as well as having a subset for which to calculate the prevalence of health discourse and misinformation. Both data subsets were further processed to analyze the domain names of any external URLs linked to in each post. Data collection took place in December 2023 and January 2024, resulting in 12,443 posts made between 2016 through 2024.

Vaccines and COVID-19 were found to be prevalent topics within health discourse on the platform, often linking with said health misinformation. "Vaccin*" was among the top 10 most frequent health keywords, which is notable as vaccines is a health subtopic in

which misinformation is common. Mentions of vaccination in the dataset are typically in reference to COVID-19, and largely position themselves against vaccines and lockdowns.

A manually coded random sample of the health-related content (subset 1) found that 35% of health-related posts contained likely health misinformation, defined as debunked or unsubstantiated health-related claims. The largest category of misinformation, accounting for slightly more than half of the misinformative posts, claimed faith healing or cure from a specific medical ailment following participation in one of Pastor Chris's "healing streams." Importantly, if a post simply mentioned faith healing but did not include a specific health claim, it was not coded as misinformation. Of the posts containing misinformation that did not refer to faith healing, 76% contained anti-vaccination conspiratorial narratives, such as "the hoax of multiple jabs," a supposed increase in health risks and deaths due to vaccination, and the belief that governmental and intergovernmental organizations (such as the WHO) supplied false information about COVID-19 to exert control. A small case study of malaria content within the corpus revealed that 20% of malaria posts contained health misinformation, most purporting that faith healing could cure malaria, including five that claimed afflicted individuals were raised from the dead.

Of the most linked-to domains in the captured health-related posts (subset 1), a significant majority appear to be affiliated with Christ Embassy. The most common domain by far was 'healingstreams.tv', a Christ Embassy website hosting Pastor Chris' healing livestreams, where misinformation about the necessity of medical diagnosis and treatment proliferates. The second most frequently linked domain was 't.me' (Telegram invite links). Nearly all of the Telegram channels direct towards Christ Embassy content. Also among the most linked-to domains in health posts are two news outlets that upon deeper investigation appear to be Christ Embassy digital properties; the way the church links digital spaces to proliferate messages, including health misinformation, merits further study.

Understanding how health misinformation is part of digital conversations in religious spaces is key to promoting public health while respecting the community norms created by a religious community. Without better understanding of the motivations and strategies for spreading health misinformation, we cannot propose effective interventions. This work has implications for any internet researcher interested in studying health discourse online, lesser-known social media platforms, and the interplay of digital media ecosystems.

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