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Youth and the pandemic: health information imaginaries and practices while navigating COVID-19 in Nigeria

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This study explores young adults' perceptions, behaviors, and how they navigated pandemic-related information, drawing from social cognitive theory. In the digital age, young people, characterized as "digital informavores," actively seek, consume, and share information, playing a crucial role in health communication. The research, involving participants aged 18–30 in two urban centers in Nigeria, focused on COVID-19 socio-health concerns, including social distancing, masking, sanitizing, movement restrictions, vaccination, infection, testing, and treatment. The analysis, employing the social cognitive lens, and following a critical thematic approach, indicates that the degree of infodemic exposure experienced during the pandemic impacted participants' understanding, attitudes, behaviors, and risk perceptions. Participants primarily relied on digital sources and social support systems for pandemic-related health information. Their self-efficacy and risk perceptions, as well as pandemic-induced affectations, were evident throughout the data. Attitudes toward the pandemic evolved from its onset, through the announcement and easing of the national lockdown, to the vaccination rollout. Dominant perceptions included the use of "copy and paste solutions" in Nigeria's pandemic response, COVID-19 denialism, and politicization of the pandemic, leading to mistrust in government and health authorities. The pandemic's impacts included mental health issues and economic hardship, particularly in a country lacking social security or welfare plans. Following a low vaccination rate among participants, the data revealed vaccine lethargy, "vaccinformation void," vaccine misinformation, vaccine distrust, and vaccine inaccessibility, due to various reasons and factors at play. Some young adults adhered to health rules due to fear and anxiety, while others were nonchalant, overwhelmed by the rules or discouraged by others' non-compliance. The young adults' imaginaries and behaviors were influenced by sociocultural intermediaries, religious and political actors, and Nigeria's socio-economic conditions.

KEYWORDS

health information, young adults, COVID-19, self-efficacy, risk perceptions, vaccination, social cognitive theory, information diet

Introduction and context

The COVID-19 pandemic posed an unprecedented threat to global health, necessitating a multidisciplinary response from researchers globally. This study explores a crucial aspect of this response: young people's imaginaries and practices at different stages of the pandemic. Young people are one of the social groups at the center of health communication in the digital age. To be clear, the term "imaginary" is used here in a sociological or anthropological sense (see Machin Suarez, 2021), to refer to the ways in which individuals imagine their social

existence, how they fit into the larger scheme of things, including the norms, beliefs, and values on the basis of which they act. It is about the social, cognitive or sometimes collective mental images that influence and shape people's behavior and understanding of the world. The study focused on socio-health elements of the pandemic such as social distance/social relations, masking, hand washing, sanitizing, lockdown/movement restrictions, vaccine/vaccination, infection, testing, and treatment.

The study prioritized young people (ages 18–30), in two urban locations (FCT-Abuja and Lagos) who, according to research evidence, are the most active and innovative users of new digital technology (Uzuegbunam, 2024). With an exponentially growing youth bulge in Africa (World Economic Forum, 2022), understanding the impact of technology on young adults' everyday lives is crucial, particularly in the global South where human development needs to be matched with research evidence. Digital technologies have a huge impact on daily life, but research evidence on the impact of technology on young adults' everyday lives is lacking in the region. Characterized as "informavores" (Kannampallil et al., 2013), young people are known to be actively seeking, gathering, consuming, and sharing information via multiple new media platforms for various purposes. As a result, they could play a part in obtaining and disseminating crucial health information to peers and other significant social groups. The COVID-19 pandemic has underscored this phenomenon; for the first time in the history of pandemics, during COVID-19, technology has been employed to keep people connected, informed, and safe (Machin Suarez, 2021). As a result of unmet needs, health information seeking on the Internet increases (Oh and Cho, 2015) as vulnerable people face constraints while navigating access to health needs such as financial difficulty and complexity of the disease.

In Nigeria, as in many African countries, news of the virus outbreak spread amidst anxieties and feelings of uncertainty. The first reported case in Nigeria was a middle-aged Italian man who arrived the Murtala Mohammed International Airport in Lagos, Nigeria, on February 24, 2020 (Okoroiwu et al., 2021). When the World Health Organisation (WHO) declared the outbreak a pandemic in February 2020, Nigeria, as many countries across the world went into a hard lockdown, with human movement and economic activities halted. There were reported cases in all 36 states and the Federal Capital Territory, with Lagos being the epicenter and accounted for the majority of cases in Nigeria (Okoroiwu et al., 2021). As of June 2024, Nigeria ranked 108 in the list of countries affected by the coronavirus with over 267,000 cases, over 3,000 deaths, almost 260,000 recoveries, in a population of over 200 million people (Worldometers, n.d.). The national government's response to the COVID-19 pandemic was led by the National Emergency Operation Centre within the Nigeria Centre for Disease Control and prevention (NCDC) in close coordination with the States Public Health Emergency Operations Centres. According to a United Nations Development Programme (2020), the COVID-19 pandemic has significantly impacted Nigeria, causing job losses, economic instability, and disruptions in key sectors like services, trade, and finance. The pandemic also disrupted remittances from advanced countries, raising the country's overall inflation and resulted in shortages of consumer goods. These economic disruptions, coupled with limited access to social safety nets, heightened social unrest and security threats.

The media, both conventional and digital, typically play a role in information dissemination and serving as a bridge during such crises as health outbreaks. Information as the single most important currency during health outbreaks, enables people to stay informed about unfolding situations and to cope with prevailing affects and uncertainties that come with such occurrences. In times of crisis, people are "more media dependent" (Meppelink et al., 2022, p. 2), more so in an era of post-truth where accurate information are less likely to influence people's opinion and notions of objectivity, given the rise of information disorders like misinformation and disinformation that often appeal to people's emotions, information voids and vulnerabilities. When the COVID-19 pandemic broke out and societies went into lockdown, social and physical distancing and self-isolation became the norm. Many people kept abreast of the pandemic through the news media, but also their mobile devices, the Internet and social media. With COVID-19, and particularly given the novelty of the disease and its unfolding nature, various kinds of information went viral in the Nigerian information ecosystem.

Research evidence (Calleja et al., 2021) has shown that during health emergency, the following occur: information overload which influence people's behavior and risk perception; information avoidance; individuals may have difficulty processing complex information and may retain only some of the early information they receive; rumors spread quickly, challenging emergency responses and scientific advice. Too much information, otherwise referred to by WHO as "infodemic" is a common occurrence in this kind of volatile information environment. An infodemic, such as in the case of COVID-19 typically occurs when there is an overflow of information of varying quality, which are spread across digital and physical environments during a serious health outbreak; this then leads to confusion, risky behaviors, and erosion of trust in science, government, and health authorities (Calleja et al., 2021). Employing the social cognitive theoretical lens, this paper explores the following specific research objectives:

1 What is the information diet of young adults and how do they access and engage important health information?
2 What are the prevailing narratives and discursive practices in their individual and shared health-related attitudes, behaviors, beliefs, impacts, and risk perceptions about COVID-19-related socio-health issues such as social distance/social relations, masking, hand washing, sanitizing, lockdown/movement restrictions, vaccine/vaccination, infection, testing, and treatment.

Theorizing health information seeking, processing and imaginaries of young adults

The social cognitive theory (SCT) is used to underpin this paper's analysis of the intersection of health imaginaries, media use, and social behaviors during a pandemic. SCT was popularized, in 1986, by social psychologist, Albert Bandura who theorized about the evolving and dynamic interaction of people, their behaviors and their sociocultural environments. The theory was an offshoot of an earlier theory on social learning propounded by Bandura in the 1960s which emphasizes the importance of observational learning, where individuals acquire knowledge, skills, attitudes, and beliefs by watching the actions of others and the consequences that follow. For

social cognitive theory, people's social factors are inevitable in shaping or reinforcing their beliefs and behaviors in the world; social factors here refer to individuals' environments, backgrounds, and past experiences. The theory suggests that learning occurs in a social context with a dynamic and reciprocal interaction of the individual, environment, and behavior. In this study, the theory is useful for unpacking how young adults negotiate socio-health elements during COVID-19 pandemic. Specifically, the young adults' external influences and internal dispositions, pre-existing knowledge and beliefs as well as their social and cultural capital could impact or inform the ways in which they received, interacted with, and navigated health information, even during health emergencies such as the pandemic. As a theoretical framework, social cognitive theory has been effectively used in studies looking at health behaviors and health promotion (Luszczynska and Schwarzer, 2020; Islam et al., 2023; Bandura, 2004; Kelder et al., 2015).

In linking this theory to the impact of media content and information on people's everyday life, Bandura (2009) imagines the social cognitive theory as an agentive framework that offers users and individuals the capacity to influence their outcomes and actions. This means that individuals are not portrayed as powerless in the face of media content they consume; rather they have control over how they are affected by such content and information. This goes against the grain of the previous bullet or hypodermic needle model, which held that media contents might have a strong and immediate impact on users and audiences. Media consumers, particularly young adults, are dynamic, self-determinative, and able to make rational judgments about what to do with the information they receive, due to various factors in their environment. Bandura (2009) argues that it is of utmost importance to understand the psychological processes by which symbolic communication affects human cognition, emotion, and behavior due to the significant impact of the mass media on society. The social cognitive framework sheds light on the interplay between individual elements (cognitive and affective), behavioral patterns, and environmental events, which is useful for studying how urban youth in two major Nigerian cities negotiated health information disseminated via mainstream and social media during the COVID-19 pandemic. In addition, young people are viewed as autonomous, self-controlled, and reflective beings who are not passive recipients of external or internal forces but rather active creators of their own actions and results. This foregrounds human agency and potentiality wherein these individuals are capable of adapting and changing based on their experiences.

Young people and health information-seeking, engagement and processing

Scholars imagine that young people are the most active and innovative users of new digital technologies. Currently, mobile or smartphone is the technology of choice for many young people in sub-Saharan African countries (Uzuegbunam, 2024). As such, mobiles have become "the melting pot devices" (Chaudron, 2015, p. 8) through which African children and youth play, learn, connect with peers and others, speak up, and generally negotiate everyday life. Moreover, as technology evolves, proliferates, and complicates everyday life, young adults are one of the demographics often ignored in education, research, and policy. Although there is limited research evidence on young people's digital lives in Africa (Uzuegbunam, 2024), existing scholarly literature confirms that young people are active participants and knowers in their own digital lives, which are summarized in what Bailur et al. (2015) call digital repertoires. Young people desire a welcoming environment in which they may fully realize the potential of digital technologies to transform their lives and society.

As digital "informavores," young people are actively seeking, gathering, consuming and sharing information for satisfying diverse needs on networked spaces and social media. Unlike older adults, who are often regarded as technologically clumsy or late adopters (Beavis, 2013), young people are at the forefront of digital information seeking because they are the demographic with the highest proclivity for using digital technology and becoming adept at sourcing for various types of information online. This has given way to the exponentially growing field of eHealth which studies the ways in which young people seek health information and manage their health using an array of digital sources and tools. As digital informavores, therefore, many young people have the ability to seek, find, understand, and appraise health information from digital sources, as well as how to navigate the vast array of health information available online (Neter and Brainin, 2012; Soellner et al., 2014). Research indicates that young adults often rely on digital platforms, particularly social media, for health-related information, which can lead to both positive and negative outcomes depending on the credibility of the sources they engage with (Nath et al., 2021; Tsai et al., 2012).

When the pandemic hit, a group of young individuals from various backgrounds and professions banded together to form the "Know COVID-19 Nigeria" Internet alliance. This became an outlet via which they wanted to combat and dispel pandemic misconceptions while also delivering relevant and trustworthy information. Using WhatsApp, Twitter, Facebook, and Instagram, these young volunteers are using their expertise in media, medicine, graphic design, web development, public relations, blogging, data analytics, and research to provide Nigerians with reliable information from both WHO and Nigeria Centre for Disease Control.

Young people's digital health information searching could be active, passive, or both. According to Rantala et al. (2019), passive searching is defined as happenstances or accidental encounters, such as when a person comes across health information on the internet by chance. Active seeking is defined as circumstances in which a person hunts for knowledge with a specific question in mind. Young people utilize the internet as a source of knowledge because it is easy to use and gives a variety of information, including health-related material, as well as anonymity (Rantala et al., 2019). Reliance on the experiences of others and peer support can also be crucial elements for young information seekers (Rantala et al., 2019). Information seeking behavior is a result of uncertainty and a way to manage ignorance about one's health as well as the cognitive-emotional discomfort that comes with health ambiguities (McKinley and Lauby, 2021). People are more prone to rely on mediated sources and resources when faced with uncertainty, ambiguity, and discomfort when dealing with health difficulties, according to the ideas of media systems dependence theory (McKinley and Lauby, 2021).

With COVID-19, there is a high volume of information available from multiple sources, and this can in turn generate further anxiety and uncertainty, inability of people to decipher credible reports, and exposure to damaging information in the process. On a global scale,

social media has become the go-to platform for users to get timely and relevant information daily, as well as an avenue for both public and private connections with individuals and their public lives. Users are increasingly using messaging apps such as WhatsApp, Messenger, and Telegram as sources of news and information and for connecting with others to make sense of the news they receive on a daily basis, in addition to the vicarious and popular uses of social networks. Swart et al. (2018) have described these messaging apps as closed, "semi-private spaces, which by their nature oftentimes involve more "active" sociability and communicative participation than open social media." (p. 4330). To further confirm this, the 2020 Reuters Digital News Report (Newman et al., 2020) shows that of people surveyed in six continents and over 40 contexts, more than half (51%) used such open or closed online groups to connect, share information, or take part in a local support network.

Online health information seeking has a complex mix of advantages, drawbacks, and dangers. On the one hand, the Internet, social media, and messaging apps provide young people easy and alternative to access news and information on medical issues. Online peer-to-peer sharing methods are also possible, and they have been shown to help young people navigate health difficulties (Lupton, 2021). On the other hand, the danger is when young people are unable to sift through the avalanche of information available online and from questionable sources. There could also be a lack of digital and health literacies necessary for navigating the terrain. The drawback of relying on online or digital devices for accessing medical information is the existence of digital divides or disconnections which means that not everyone will have the digital means to access information or even the skills to do so.

A number of studies have looked into how young people, particularly university students, in African countries, including Ghana, Nigeria, and South Africa, use the Internet and social media to obtain health and medical information (Osei Asibey et al., 2017; Obasola and Agunbiade, 2016; Rantala et al., 2019). Youth on the continent, like many other young people throughout the world, rely on the Internet and social media for health information, particularly for health concerns connected with societal stigma, such as sexual and mental health. Risky health behaviors, a crippling culture of self-medication, and weak health systems exacerbate the situation (Osei Asibey et al., 2017). In a study of how young "netizens" in Nigeria responded to the COVID-19 pandemic, Uwalaka et al. (2021) found that their news consumption was overwhelmingly from social media, they were very much exposed to fake stories on social media, and that this decreased the likelihood of their believing credible and real news stories. The motivations for university students' consumption and spreading of incorrect information online were investigated by Madrid-Morales et al. (2021). According to the findings, young people use a variety of indications to judge the reliability of news, which in turn determine the information's shareability. In addition, civic duty and amusement were two prominent motivations for sharing information online. Political (dis)information was disseminated unevenly, although it was widespread among students who self-reported high levels of political activity (p. 1). However, research suggests that multidimensional factors such as demographics, socioeconomic status, Internet perceptions, health conditions, educational level, digital connection/disconnection, preconceived attitudes and beliefs, and self-efficacy influence online health information seeking (OHIS) (Oh and Cho, 2015).

Methods and protocol

Combining focus groups and individual semi-structured interviews, this study takes a qualitative approach to address the research questions. On the one hand, group interviews with young people are one of the most powerful methods for investigating shared life experiences; on the other hand, semi-structured interviews are the most common source of qualitative data in health research (DeJonckheere and Vaughn, 2019). In-depth semi-structured interviews were effective for following up on the themes discussed in the focus group on a more personal level, free of the group dynamics (e.g., doubts, shyness, and anxiety) that come with speaking in front of others. Scholars like Bosch (2022) pushes for prioritizing qualitative approaches and methods such as interviews and focus groups, in order to better comprehend users' everyday behaviors. Given the closed nature of most social media and messaging services like WhatsApp as a result of platform policies that make it impossible to conduct effective computational social science research on information reception dynamics, researchers can benefit from utilizing qualitative-ethnographic methods such as focus groups and interviews, which are typically labor-intensive and therefore could be deemed rigorous. Ethnographic methodologies do not adhere to conventional rules of study sampling in order to satisfy the need for scientific rigor; rather, they evaluate the connections between people and material infrastructures in a variety of virtual and physical environments. They also provide the opportunity to record how information spreads between various social media platforms and back (Spies, 2020) and the interdependencies that exist when studying human interaction with the physical environment.

Four focus groups with young adults ($N = 33$) were held, two in each of FCT-Abuja and Lagos. The decision to focus this study on Abuja and Lagos is based on their political, social, and economic importance, as well as their impressive population density, diversity, and the fact that the youth populations in these contexts are vibrant and well represented. Lagos is a metropolis in the South West region of Nigeria with a population of almost 23 million people, the majority of whom are young. It is not only Nigeria's most populous metropolis, but also one of the most cosmopolitan cities in sub-Saharan Africa, with a continual influx of individuals from throughout the country and continent. The federal capital of Nigeria, Abuja, has a population of about 3 million people. It serves as Nigeria's administrative and political capital, as well as a significant commercial and business hub.

A total of eight personal interviews were done to further follow up on issues raised during the group discussions. Purposive sampling was used for recruitment to achieve a "loose representation" (Lynch, 2013), with a particular emphasis on the following sample characteristics: participants were either enrolled in colleges or universities, and professionally employed, or self-employed. The participants were recruited using the snowball method. For each location, trained research assistants aided in the recruitment of potential participants. They first started with people in their network who met the criteria, followed by further recommendations by the first recruits. The assistants were individuals familiar with the local environment. Although the sample size may be relatively small, the quality of the discussions generated was effective in responding to the study's research questions and was complemented by data from the personal interviews that followed. The value of qualitative studies like this lies in generating "deep, thick data" which refers to the richness and complexity of the

data collected through qualitative methods, and which then enables researchers to generate thick descriptions of phenomena. "Thick description," a concept introduced by Geertz (1973), involves detailed accounts of social actions within their context, providing a comprehensive understanding of the phenomena being studied. This type of data allows for a nuanced analysis and a deeper insight into participants' experiences, perspectives, and the meanings they ascribe to their actions. Participants were diverse in terms of educational culture, socioeconomic class, gender, ethnicity, and area, based on first impressions. The fieldwork was undertaken in Nigeria in December 2021 in accordance with existing COVID-19 protocols at the time.

Ethics clearance was sought and obtained from the ethics review board of the Institute for Humanities in Africa (HUMA) at the University of Cape Town. A number of ethical considerations regarding information sharing, informed consent, confidentiality, consideration of potential harm to participants and institutions, and monetary reward were adhered to Uzuegbunam (2022), Posel and Ross (2014). In the larger study from which data for this paper was pulled, a variety of questions (see Supplementary material) were posed to participants, such as their preferred sources and attitudes toward news and health information, their habits in seeking health information, their initial and current perceptions of the COVID-19 pandemic in Nigeria, their personal experiences with the virus, their fears of contracting it, and their vaccination status and attitudes toward vaccines.

Critical Thematic Analysis was utilized for analyzing the coded data since it is a very adaptable method that enables the identification of themes and patterns in texts, including interviews and ethnography (Lawless and Chen, 2019). It employs a two-step coding procedure, beginning with data-driven inductive coding and progressing to theory-driven deductive coding. It is intended to begin with a critical study of recurrence, repetition, and forcefulness within the focus group and interview data in relation to larger social ideas, in order to arrive at themes that are critically informed (Lawless and Chen, 2019). The coding procedure was carried out using NVivo software, version 1.5 from 2021, to code themes and sub-themes from the larger study from which data for this paper was extracted. This approach enabled the extraction of codes, concepts, and causal chains from qualitative data. Coding was based on post-data-collection themes and subthemes derived from the literature review, study questions, transcripts, and research notes.

Findings and discussion

There were 17 males and 16 females that took part in this study. Twenty-eight of them were between the ages of 26 and 30, with five falling between the ages of 18 and 25. Twenty-seven of them had bachelor's degrees, while six were either master's degree holders or enrolled in the program.

RO1: youth's information diet: social media trust, "beautiful ignorance," avoidance, and compartmentalization

Social media, accessed mostly through their smartphones, appear to be the key source of daily information for the young people. Trust in social media platforms appears very strong. They believe that information on digital platforms are "raw" (a hyperbole for unfiltered and real information) and devoid of government interference. Twitter is described as a niche, authentic, and "default outlet," with diverse kinds of information (this is supported by existing research, see Mohammed and Adelakun, 2023). Participants brought up the prolonged Twitter ban during 2021, which was still in effect when I spoke to them. The Federal Government of Nigeria's decision to prohibit Twitter was, therefore, an important element. The platform continued to be a popular digital space despite the prohibition since many people connected using both free and paid VPNs (Mohammed and Adelakun, 2023). National TV channels like Arise TV and Channels TV were the second-most significant source of news and daily information for the young people, followed by international platforms like the BBC, CNN, and Aljazeera, national print media, radio broadcasts on traditional radio sets and mobile devices, and finally YouTube and Facebook. Importantly, many viewed social media sites like Twitter and Instagram to be just as trustworthy as conventional news media outlets. It is not surprising, then, that as a result of the young adults' reliance on digital media, their health information diet equally toed the same pattern.

Beyond the intricacies of everyday life information, accessing health information is something that they typically avoid or do not deliberately seek out. Thus, the first thing that is evident in their health information-seeking practice is health information avoidance. This means that the participants do not specifically seek out random health information as part of daily life unless when sick or when they notice something is out of place. As one of them put it, "what you do not know will not kill you" (Participant 6, Apo, Abuja). One of them describes this as "beautiful ignorance" (Participant 5, Lagos Island), suggesting the comfort that comes with not knowing about your health status, particularly when you do not have serious symptoms. Research conducted by Calleja et al. (2021) shows that during a health emergency, several phenomena occur. These include information overload, which affects people's behavior and perception of risk. Additionally, individuals may engage in information avoidance, struggle to comprehend complex information, and retain only a portion of the initial information they receive. Furthermore, rumors spread rapidly, posing challenges to emergency responses and scientific guidance. The other reason for this "ideology" is to avoid the anxiety and fear that sometimes come with health information.

> "I feel like once I read up about something, once I am so informed about different diseases or illnesses, I might just feel something and my mind will tell me it is that thing I read that is happening." (Participant 6, group discussion, Apo, Abuja).

Googling for health information was an intentional exercise for many of the young adults. The information they gather from online sources help to prepare them for meeting a health specialist. Going to the hospital becomes an option if all other measures fail or the situation becomes out-of-control. Participants switch between using Google (via their mobile phones and using mobile internet) and social support networks to sort through options and supposedly make healthier decisions. There is a back-and-forth between consulting their medical acquaintances, family members, and seeking counsel from religious authorities, as well as looking for accurate health information online, observed in the engagement with the participants.

Ultimately, as one of them put it, "it is the level or the gravity of the health problem that determines who" (Participant 1, Gwarimpa, Abuja) they call first. Overall, it is assumed that as a developing country in sub-Saharan Africa, there is a lack of adequate health literacy and a limited use of health technologies in Nigeria (Ekoko, 2020).

The young people unanimously agreed that a significant number of Nigerians, including themselves, lack health insurance and are not mindful of their health. Nigeria does not have a robust National Health Insurance Scheme that covers workers at all levels and across the country (Onoka et al., 2015) and many employers do not offer their employees any as part of employment package. This lack of health consciousness is linked to a type of health ignorance that many of them had described. Except they feel extremely sick, it is normal for most people to dismiss symptoms as being a result of stress. This stems from the idea that "Nigerians are mostly overworked and are underpaid so they do not have a choice." (Participant 1, Mainland, Lagos,). Thus, people self-diagnose and simply visit a nearby pharmacy for some paracetamol and malaria or typhoid medication. When matters eventually worsen and someone dies as a result of health neglect or misdiagnosis, religion enters the picture, and the event is attributed to "God's Will." Furthermore, the majority of participants perceive hospitals as unwelcoming. According to them, most hospitals are unaffordable, and are death traps with various problems ranging from policies that require staff to insist on receiving money before treatment, absent doctors, to inadequate equipment, etc. There is research evidence that self-medication is common among young people in Nigeria and the reason for this is partly attributed to the unfriendly attitude of healthcare workers in Nigerian hospitals (see Esan et al., 2018). According to one participant:

> "Because of the state of the economy where most people are in poverty, nobody thinks about their health more than how to provide a meal tomorrow for their family." (Participant 1, group discussion, Mainland, Lagos).

Given that young people rely primarily on digital sources (namely the Internet and social media) and social support systems for everyday information, including health information, it stands to reason that these were the same sources they relied on for information about the pandemic. Furthermore, there was some sort of information compartmentalization when it came to COVID-19, where they searched, combed for, and sought out information from multiple sources for different aspects or types of information on the health crisis. For the first time in the history of pandemics, technology was employed during COVID-19 to keep people connected, informed, and safe (Nearchou et al., 2022).

RO2: imaginaries and practices of young adults during COVID-19

In the context of Bandura's social cognitive theory, the experiences of the young adults during the COVID-19 pandemic can be understood as a dynamic interplay of personal, behavioral, and environmental factors. Their narratives reveal their cognitive processing of the pandemic, including their attitudes toward the virus, their responses to the novel situation, and their navigation of infection, testing, and treatment. These cognitions were influenced by their access to various media and information sources, their employment status, and their educational and socio-cultural backgrounds. Their adherence or non-adherence to health guidelines, as well as their vicarious experiences of vaccination, can be seen as manifestations of observational learning, a key component of social cognitive framework. Despite working in different sectors, including corporate organizations and health professions, their deep concerns about the pandemic and mistrust toward the government and organizations like the WHO were evident. Their individual personality differences and emotional states equally played a significant role in shaping their perceptions of the crisis and their behaviors during this time. This aligns with the theory's emphasis on the role of personal factors in determining behavior. Regardless of their level of education or social exposure, the infodemic they were exposed to during the pandemic also significantly impacted their cognition, attitudes, actions, and risk perceptions, demonstrating the reciprocal influence of environmental factors on personal cognitions and behaviors.

General attitude to COVID-19

The young people's attitude toward the pandemic dilated through various stages, beginning from when news about it first broke out, to the time national lockdown was announced, to the period the lockdown was eased and the subsequent vaccination rollout. First, there was fear and panic (outset of the pandemic) and then shock, paranoia, and anxiety (during the lockdown and when the pandemic was not ending soon), indifference and calm (when the lockdown was eased and vaccination kickstarted), to bursts of mild fear and concern (rise of new variants and news of hard lockdown imminent). The last stage was when this research was conducted and I had this conversation with the participants.

> "It was generally just fear, fear of the unknown. What was going to happen? Is this the end of the world? Are we going to die?" (Participant 8, group discussion, Island, Lagos).

The young people's individual and shared health-related attitudes and risk perceptions followed certain common tropes in all the locations used for this study. Participants in Lagos and Abuja frequently made statements like the ones below during the interactions. These hinted at a number of things, including their lack of concern for the pandemic at the time; the pandemic fatigue due to the constantly changing rules; their belief that the virus was not real or that it was some sort of "sickness from and for white people." Some others voiced optimism that the country would survive the pandemic in light of past health crises such as how Nigeria managed to contain and survive epidemics like Ebola and Lassa fever.

> "If I perish, I perish."
> "It's not that deep."
> "Life goes on… Just keep on living."
> "You just cannot control these things."
> "Oyibo [white people] sickness."
> "In Nigeria, we are stubborn."
> "I have made peace with it."

The young Nigerians were torn between the media hysteria that caused fear and panic, and at the same time, pandemic vigilance

caused by the media coverage which compelled them to pay closer attention to the situation as well as their health. It was common belief that the mainstream media overhyped the pandemic and created unnecessary panic because, "instead of educating, the media was more concerned about the numbers…deaths and all" (Participant, Apo, Abuja). Many thought that Nigeria adopted "copy and paste solutions"; a thought that is corroborated by Arukwe (2022), "irrespective of the often starkly different economic, political, and social milieus" (p. 1) that distinguish the country from Western countries. Participants held the belief that African countries should not have implemented lockdown measures due to the inability to financially sustain such measures. This is because many residents of African countries rely on their daily income to survive, and countries like Nigeria lack a robust social security system and pandemic welfare plans to assist their citizens.

> "We did a whole lot of copying. I feel if we had come together, instead of locking down like the West, we could have redefined how this applies to us and chart our own path." (Participant 4, group discussion, Apo, Abuja).

Other common beliefs include that the pandemic was a sign of God's plan to end the world (especially among the religious); that the pandemic was politicized and hence a political stunt. The government, its agencies, and corporations were criticized for what appears to be them playing to the gallery by using the pandemic to demonstrate social responsibility while profiting from it. One participant described government and corporate organizations as a "community of liars." Accounts were given of how people believed that the COVID-19 data were fabricated to make the situation appear serious and, as a result, prolong the time it took for life to return to normalcy. In addition to the notion of a "plandemic"—a concept supported by Kearney et al. (2020)—some believed the pandemic was caused by a geopolitical conflict between the United States and China, as well as a covert effort to seize global dominance; a belief that stems from variously disseminated misinformation on social media (Kearney et al., 2020).

> "People were dying of hunger and no one cared. But you care about them catching COVID." (Participant 5, group discussion, Apo, Abuja).

> "I feel with these variants coming up, people are trying to make money, since I do not know anyone personally who has died from it." (Participant 5, group discussion, Apo, Abuja).

> "I felt it was governments coming after each other. Because there was so much tension between US and China." (Participant 2, group discussion, Mainland, Lagos).

COVID-19 disbelief or denialism was observed in several accounts by the young people. Such denialism resulted in other risk perceptions and risky behaviors. Some of them, except for those who had close friends and family members who were sick with the virus, did not think the virus was real or that the pandemic was indeed happening. This later resulted in vaccine disbelief when vaccines were later rolled out in the country. A good number of them doubted the fatality of the virus—they believed that due to the country's humid weather, the virus would not survive the heat. As a result, people were careless with health guidelines and rarely adhered to them, except in public and workplaces where it was compulsory to do so.

> "So COVID is not that deadly, especially in Africa. Our climate change, our weather here would not allow COVID to have its way." (Participant 8, group discussion, Gwarimpa, Abuja).

There were also observed differences in pandemic attitudes exhibited by people in different regions of the country. For instance, participants believed that the way people experienced the severity of the pandemic in smaller cities was different from how people in mega cities such as Lagos and Abuja did. Those in big cities may have taken the pandemic much more seriously than those in other locations. There was the belief that the spread of the virus was significantly concentrated in the urban and peri-urban cities much more than in the rural areas because people moved around more in urban spaces. Due to a variety of factors, including a lack of information about how to cope with the pandemic, a lack of understanding because health information were typically not available in local languages, and poor healthcare system, many people would have become ill and probably died if rural areas had experienced high infection rates.

Pandemic panic, impact and concern

The COVID-19 pandemic not only posed a threat to people's physical health but also challenged their overall living conditions. People's health behaviors were affected by the emotional burden, risk perception, and lockdown restrictions during the pandemic; this was corroborated by an earlier study by Nearchou et al. (2022). The pandemic had several impacts on several of the participants in Lagos and FCT-Abuja. A lot of them lost their jobs and means of livelihood; and for some others, salaries were slashed by 25–50% by employers, while some went without any salaries for several months, particularly during the period of hard lockdown. The economic spiral from the pandemic was deeply felt by many in a country where there is non-existent social security or welfare plan for citizens. Palliatives (mainly food items and relief material) intended for distribution to the masses were allegedly hoarded and diverted for personal use by individuals in authority before some of the warehouses where they were stashed were discovered, causing riots and unrest throughout the country. Incidentally, these discoveries took place simultaneously across the country and the crises they created coincided with the #EndSARS nationwide protests against police brutality, in 2020.

> "…When my company had to close down and they slashed our money…and all, that was when I started having the effect of COVID-19. Asides from the fact that my money was being touched, I would not have felt anything." (Participant 7, group discussion, Island, Lagos).

> "It started affecting our business. In fact, we had to shut down. We went home. There was no business and when there was no business, of course, there was no salary."

There was also an increase in crime, including petty crimes such as food thefts. For example, a group called "One Million Boys," which included young people as young as the participants, aged 18–30, terrorized neighborhoods, particularly in Lagos State. Mental well-being deteriorated during the pandemic, especially during the

lockdowns, mainly as a result of isolation from loved ones, uncertainty about work and financial sustenance, and fear of getting sick from the virus (this is corroborated by Nearchou et al., 2022). But, at the same time, this study found that concern for mental health increased – some participants and their family and friends took to daily exercises, change in diet, intake of supplements to boost their immune system.

People felt quite isolated as a result of movement restrictions and this affected social interactions. The cultural lives of people were affected as Nigerians are known for their love of communal life and social interaction for everyday physical, emotional, and social survival. A minority of the participants reported experiencing less socio-emotional difficulty during the pandemic, with varied reasons. Some found it advantageous as it allowed them to temporarily step away from their academic or professional responsibilities. Others received financial assistance from their family or friends, enabling them to take care of themselves. Additionally, introverted individuals who did not feel the negative impact of social isolation also reported an easier experience. In addition, restriction of movement, both local, inter-state, national, and international, resulted in economic difficulty for people–only the rich were able to quickly and successfully isolate themselves. The average person could not, as the need to survive superseded the fear of the pandemic.

> "So the whole lockdown, after a couple of days, people were hungry and needed to make money, they were hungry. So people took their chances with COVID. The Nigerian government did not provide any alternatives." (Participant 1, personal interview, Mainland, Lagos).

> "The worst COVID we have in this country is hunger, it's illiteracy… the worst COVID is bad roads, the insecurity." (Participant 1, group discussion, Gwarimpa, Abuja).

Other common concerns emerged, as follows. First was the seemingly changing nature of the virus—new variants coming up from time to time meant that no one knew when the pandemic was going to end nor did anyone have complete information about the novel disease. Second, the fact that the vaccine had to be taken a number of times before it could be considered efficacious was troubling for many people. There were accounts of side effects from people who had taken the vaccine: for instance, some reported getting sick to the point of incapacitation and hospitalization. The third concern was the racialization of the pandemic by Western countries—this was in relation to social media contents purporting that the virus was a "Global South thing," and at one point, an "African thing." They opined that even when South African scientists discovered and announced the Omicron variant, African countries were vilified by the West rather than praised, in a move that was reported by some as racist (see Harding, 2022, for a report on this).

> "There is no need to make a certain group or continent look like they are the virus itself… I feel this is just a way of showing they do not even care about third-world countries because as a matter of fact, I actually heard or read that this recent Omicron virus - it wasn't just in South Africa it started." (Participant 1, personal interview, Mainland, Lagos).

Infection, testing, and treatment

There were several anecdotes of participants admitting that they and their family members, co-workers, and close friends contracted the virus but recovered without undergoing testing—which some claim was expensive—going to the hospital, or isolating themselves from other people. Many of those who had ever had a COVID-19 test did so because of workplace rules that demanded it. For this cohort, and those who did not get infected, their survival tactic included relying on multivitamin supplements obtained over-the-counter, traditional or local remedies comprising steady hot water baths or steaming, a mixture of lemon, honey, lime, and ginger taken with hot water, and regular malaria medications recommended by their doctor friends and local pharmacists. There were accounts of treating COVID-19 with malaria medications because it was widely believed that COVID-19 symptoms were quite similar to those of malaria. There seemed to be a consensus that many more Nigerians than were reported may have contracted the coronavirus but were not captured in the data because of inadequate testing procedures and people's reluctance to undergo the test.

> "I watched a video where someone was pounding a whole mortar of ginger. The guy died from overuse of that homemade remedy." (Participant 5, group discussion, Apo, Abuja).

> "Then, we had news that malaria drug cured COVID. That was when some people started buying chloroquine and other drugs." (Participant 6, group discussion, Island, Lagos).

> "So, I started treating malaria. I was taking malaria drugs. It was within like 5 days… I started to perceive again. Yes, within 5 days I regained myself. I was smelling well, I was tasting well, everything was perfect." (Participant 5, group discussion, Gwarimpa, Abuja).

> "…For some reason, Africans, may have developed superior antibodies to some of these sicknesses because we have been living with malaria all our lives. We have taken anti-malaria drugs… maybe those drugs have built stronger antibodies for us. And perhaps, it is even acting against COVID." (Participant 4, group discussion, Apo, Abuja).

People were scared to test for COVID-19, to disclose COVID-19-like symptoms or their positive status because of fear that they would be taken away forcefully and quarantined. A handful of them shared how either a close friend or a neighbor was picked up by officials of the Nigeria Centre for Disease Control (NCDC) after they were confirmed positive, and taken away to be quarantined. Most individuals were terrified of compulsory quarantine, which led to non-disclosure behaviors.

> "…Our last born started having these symptoms of… he could not smell, yes. So he was scared, and he wanted to go and run a test. We told him to not go anywhere. No, because if he goes, they'll come and pick all of us." (Participant 3, group discussion, Gwarimpa, Abuja).

Adherence to other health rules—handwashing, sanitizing, masking, social distancing

Some of the young adults appeared to have taken the health rules, such as masking, handwashing, and sanitizing, seriously enough due

to fear and anxiety, but others came across as nonchalant and indifferent because they were either overwhelmed by the rules or discouraged by being around people who were not following the rules. Others just followed health precautions at work and in public areas. There were equally accounts of group compliance with the guidelines, particularly at home, where some participants, their parents and siblings had standing rules that everyone in the home adhered to, to keep each other safe. Research literature confirm that young adults elsewhere like in the global North context like United States and Ireland, had the lowest compliance to COVID-19-related public health measures such as social distancing, staying home, sanitizing and washing of hands (Adedeji-Adenola et al., 2022; Park et al., 2020). Individuals who perceived a higher risk of contracting the virus and viewed health-related information disseminated by the government as credible were more likely to comply with preventive measures (Nearchou et al., 2022).

> "Anywhere I go, I take my sanitizer. I am kind of scared. I take my sanitizer around and my nose mask. I try to be conscious about it…Especially as new variants are coming." (Participant 6, group discussion, Apo, Abuja).

> "I take busses every day, we do not wear nose masks in Nigeria. This COVID-19 rules can work somewhere else, not in Nigeria. In Nigeria, we are stubborn. It's not working." (Participant 7, group discussion, Island, Lagos).

It was difficult for many people to successfully social distance because of living conditions that make it impossible to do so, and the fact that they commute every day by public transport system. Many believed that Nigeria's social composition made it impossible to successfully adhere to most health guidelines about the pandemic, because for things to work smoothly, as one person put it, "you need to have a robust system to enforce it."

> "People cramp into busses with no masks on and it is like, that's normal and nothing is happening…" (Participant 1, personal interview, Mainland, Lagos).

Vaccines/vaccination: an interplay of (dis)belief, trust, distrust, and information void

One of the most contentious and drawn-out topics throughout the discussions with the young adults was the subject of vaccines and vaccination. There were only a handful of participants who were fully vaccinated. They did so because they believed the virus was real and the vaccines as a protective measure against infection; but mostly because they needed the vaccine certificate for travel or for work purposes. In one of the locations, Gwarimpa, in FCT-Abuja, participants were "zero-dose"—meaning that none of them was vaccinated. Common tropes earlier identified about the pandemic continue to be observed in the ways they perceived and talked about vaccines and vaccination. These tropes show how their risk perceptions of the vaccines and vaccination were based on personal beliefs, groupthink, religious and cultural factors, and distrust of government and foreign donors.

> "There is, of course, vaccine hesitancy, vaccine apathy, vaccine disregard, vaccine hate. So many negative things you want to talk about, yes there are." (Participant 1, personal interviews, Gwarimpa, Abuja).

The topic of vaccinations raised a slew of problems. There was a prevailing skepticism and indifference toward vaccinations, stemming from the view that they were useless as one could still contract the coronavirus despite being fully vaccinated. Additionally, there were concerns about the vaccines being of subpar quality and posing potential risks if consumed. In many instances, individuals were discouraged from receiving vaccines in places of worship due to the influence of religion. Additionally, skepticism about vaccines was attributed to a belief in traditional medicine. The young individuals criticized what one of them referred to as the "Oyibo style of vaccination" and contended that African nations have the capability to manufacture their own vaccines or devise alternatives to vaccination by focusing internally, rather than relying on Western sources. Some individuals with Christian religious beliefs expressed the notion that vaccines were linked to the 5G Mobile Network, the End Time, and the Mark of the Beast. According to this thinking, taking the vaccine would result in the implantation of a demonic chip. Vaccine skepticism is also closely tied to a perceived lack of confidence in the government. As previously shown, there was a perception that the government politicized the pandemic. The perceived distrust toward vaccines administered in Nigeria also stemmed from the belief that although the vaccines being imported might be of good quality, "they are diluting it and we do not know and they are just pumping in fluids into our body and it is not vaccine." For many young people, vaccination is not an unfamiliar practice, since they have received other kinds of vaccinations before then. However, the situation with coronavirus and the pandemic had created a sense of confusion and information overload, making this experience distinct. As one participant in Apo, FCT-Abuja, put it:

> "Before now, I took BCG vaccine, hepatitis, we trusted that. I do not know why. But now it is difficult for me to trust. For me, it is more a trust issue." (Participant 7, group discussion, Apo, Abuja).

Even among those who did believe in the vaccines, there was an observed level of vaccine lethargy in the data, even from participants who were health workers, and this persisted even after government officials were shown on the news media to have gotten the jab. This contrasts with the findings of Adedeji-Adenola et al. (2022) in their study of participants in Nigeria, where a significant proportion of respondents expressed a high level of readiness to get vaccinated, particularly among health workers. The discrepancy may be due to their utilization of a quantitative survey, with its limitations in accurately assessing the veracity of individuals' health practices. Given the issue of vaccine apathy raised in relation to the vaccines, the participants of this present study proposed various measures to address this, including incentivizing vaccination and providing logistical support through monetary compensation, refreshments at vaccination sites, free health check-ups, gift vouchers, free transportation to vaccination sites, utilizing telecommunication service providers to disseminate messages to mobile devices, tailoring vaccine information in local languages, and implementing door-to-door vaccination.

> "…When money or benefit is not attached to a thing, people may not be keen." (Participant 1, personal interview, Apo, Abuja).

> "That is because there is no visible proof it works and we cannot see the negative effects of not taking it." (Participant 5, group discussion, Apo, Abuja).

Moreover, there was "vaccinformation void"—which I define as a significant absence of reliable and comprehensive vaccine information, resulting from insufficient efforts by the government and healthcare professionals to educate the public about vaccines. This issue was particularly prevalent among individuals residing in remote and rural areas, who had limited access to conventional and social media. Insufficient knowledge and education on vaccines and the vaccination process were cited by certain participants as the primary reasons why those who recognized the importance of vaccination and those who were initially indifferent but open to persuasion, chose not to receive the vaccines. The youth wanted concise information regarding the rationales for receiving the vaccines, the composition of the vaccines, the anticipated adverse effects, and the locations for vaccination. Ataguba and Ataguba (2020) had found that effective communication is a crucial social determinant of health for the COVID-19 crisis. The lack of accurate vaccine information, thus, is the primary cause for the spread of vaccine disinformation by anti-vaxxers, disinformers, and conspiracy theorists, who exploit the absence of reliable information to disseminate misleading information and hoaxes.

Building on the above was vaccine misinformation—some participants insisted they would never get the jab because of the many stories and myths they had read online and videos watched on YouTube; suggesting a serious case of vaccine infodemic. Some of the online content purported that people died from the vaccines, that people got sick after taking the vaccines, that the vaccines could cause infertility after some years of taking them, and that people develop other sicknesses. There were also reports of expired vaccines that made the rounds; in actuality, the vaccines were not expired before they were brought into Nigeria; they expired when they were being kept in storage before the national rollout (Mcallister et al., 2021).

> "Interviewer: You know people who died from the vaccines?
> Participant 3, group discussion, Apo, Lagos: No. I read online, on social media, Google. I take the normal citrus, lime etc., but not the vaccine. It may bring other underlying sicknesses. I do not want to be in that situation."

> "I began to see it like a kind of microchip they want to implant in people because they have tested and they brought this COVID-19 to Africa and they saw that Africans actually survived it." (Participant 4, group discussion, Gwarimpa, Abuja).

Data analysis also showed evidence of vaccine distrust as a result of government corruption and non-accountability, political influence in the rollout process, forced vaccination policy and discrimination in government offices and workplaces. The use of official compulsion created a sense among citizens that their human rights were being ignored and trampled, which further deepened their skepticism in the vaccines. Consequently, this fueled the spread of misinformation and increased resistance to government efforts (see Adegbite, 2021 for a fuller discussion on this).

> "If you give me the impression that if I do not take something, this other thing will not happen, you are only telling me that you are benefiting from that thing I'm taking, you are only telling me that there is something hidden about it." (Participant 2, personal interview, Gwarimpa, Abuja).

> "It's a question of morality, it's a question of humanity, it's a question of… universal constitution." (Participant 2, personal interview, Gwarimpa, Abuja).

Moreover, there was a critique of Big Pharma which led to skepticism over the fact that it took such a short time for the vaccines to be developed and approved in comparison to prior vaccines for other diseases. Several participants expressed skepticism regarding the rapid development of vaccinations, suggesting that Bill and Melinda Gates Foundation was collaborating with the WHO to advance a concealed agenda and generate financial gains (Reuters Factcheck, 2021). These claims were circulated through social media Lastly, there were claims of vaccine inaccessibility: meaning that vaccines were difficult to access, because "the problem we have in this country is accessing things, everything is always difficult" (Participant, Gwarimpa, Abuja). Not only was there a lack of information and education on vaccinations, but some vaccine faithfuls who sought to be vaccinated were informed that vaccines were unavailable upon their arrival at vaccination sites. A participant recounted how their acquaintance managed to acquire the vaccination by enlisting the aid of a well-known figure in society. These accounts of corruption contribute to the lack of accessibility of vaccines for the general population. Participants in the cities of Lagos and Abuja also voiced apprehension regarding the considerable distance that persons have to cover in order to be vaccinated.

> "The stress to get the vaccine is more than the stress to make money." (Participant 9, group discussion, Mainland, Lagos).

Conclusion

This paper set out to, firstly, explore the information diet of young adults, including how they accessed and engaged with important health information on COVID-19; and secondly, to analyze the prevailing narratives and discursive practices in their health-related attitudes, behaviors, beliefs, impacts, and risk perceptions concerning COVID-19 socio-health issues such as social distancing, masking, hand washing, sanitizing, etc. What emerges is a multidimensional assessment of how urban youth in Nigeria navigated health information during the pandemic, which contributes to an understanding of the COVID-19 health emergency and young adults' perceptions and practices in an African context. The COVID-19 pandemic had significantly impacted the lives of young people, particularly in low-income countries like Nigeria (Nearchou et al., 2022). The paper highlights the importance of contextualized narratives in understanding how specific key

populations perceived and handled the pandemic and the information surrounding it. Narratives serve as a tool for making sense of the world. Stories are not just tools for making sense of the world; they design universes. Whether these universes are imaginary or have real consequences, stories humanize people and provide a window through which we can understand their lived experiences.

This aligns with the World Health Organization's recommendation for "a whole-of-society and integrated approach" (World Health Organisation, 2020) to managing infodemics and misinformation during health crises. The approach highlights the significance of social listening by different parties involved: the practice of observing and examining discussions to guide strategic actions, both on the internet and in person, becomes an increasingly vital element of risk communication and involvement initiatives, especially in African countries (Sommariva et al., 2021). Young people's imaginaries of health crises matter, as do their viewpoints about managing such crises, adhering to rules, and playing a role in containment. Understanding the lived experiences of diverse populations during this time is crucial. Furthermore, particularly in developing nations, the COVID-19 pandemic has emphasized the importance of addressing the social determinants of health (SDH) in addition to modifying healthcare delivery and response systems. This includes prioritizing crisis and risk communication to mitigate the impact of the disease (Ataguba and Ataguba, 2020; Sommariva et al., 2021).

With technology at the heart of human communication and the growing importance of access to health information, there is an urgent need for research into young people's daily practices, imaginaries, and behavioral patterns to better inform local health gatekeepers, scholars, and government officials in designing, implementing, and evaluating health messaging in a social context. Tailored eHealth interventions have shown promise in improving health outcomes among youth; and these interventions can be personalized to meet the specific needs and preferences of young users during health crises, thereby enhancing engagement and effectiveness (Ramsey et al., 2019; Sweeney et al., 2023; Willmott et al., 2019). Young people have the potential to play a decisive role during health emergencies and this has to be included in strategic and policy documents.

The findings provide theoretical support for the assumptions of the social cognitive theory. According to this theory, individuals gain knowledge, skills, attitudes, and beliefs by observing the actions of others and the resulting consequences. Additionally, people's social factors play a crucial role in shaping or strengthening their beliefs and perceptions of the world. In the context of the COVID-19 pandemic, young adults in Nigeria navigated socio-health aspects through a combination of external factors, internal predispositions, pre-existing knowledge and beliefs, as well as their social and cultural capitals. In line with this, they both demonstrate potential for agency, autonomy, reflexivity, and independent thinking and action during times of crisis, by relying on a combination of personal, interpersonal and community resources to pull through. Their self-efficacy and risk perceptions in dealing with the pandemic were consistently demonstrated throughout the interactions with them and their interactions with one another, particularly with regard to adherence to health rules. The social cognitive framework provides a valuable lens for understanding the complex interplay among cognitive and affective elements, behavioral patterns, and environmental factors. This has been useful in examining how urban youth at two major Nigerian cities navigated the health information via mainstream and social media amidst the COVID-19 pandemic.

A limitation of this study is that it seems to lump Nigerian youth together as a homogeneous unit without explicitly considering the varied points of differences in such a largely populated country with over 200 million people, such as gender, ethnicity, social status, rural and urban differences, etc. Notwithstanding, the insight from the study is a necessary starting point to understanding the place of young people during health crisis, how to tailor health messages, while being cognizant of how they are influenced by sociocultural, political and economic intermediaries.

Data availability statement

The raw data supporting the conclusions of this article will be made available by the authors, without undue reservation.

Ethics statement

The studies involving humans were approved by Institute for Humanities in Africa (HUMA), University of Cape Town, South Africa. The studies were conducted in accordance with the local legislation and institutional requirements. The participants provided their written informed consent to participate in this study.

Author contributions

CU: Conceptualization, Data curation, Formal analysis, Funding acquisition, Investigation, Methodology, Project administration, Resources, Software, Supervision, Validation, Visualization, Writing – original draft, Writing – review & editing.

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Conflict of interest

The author declares that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

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Supplementary material

The Supplementary material for this article can be found online at: https://www.frontiersin.org/articles/10.3389/fcomm.2024.1461140/full#supplementary-material

References

Adedeji-Adenola, H., Olugbake, O. A., and Adeosun, S. A. (2022). Factors influencing COVID-19 vaccine uptake among adults in Nigeria. *PLoS One* 17:e0264371. doi: 10.1371/journal.pone.0264371

Adegbite, O. B. (2021). Vaccine hesitancy, mandatory COVID-19 vaccination and the right to personal autonomy in Nigeria: a constitutional analysis. *UCC Law J.* 1, 239–264. doi: 10.47963/ucclj.v1i2.419

Arukwe, N. O. (2022). COVID-19 pandemic in Africa, "copy-and-paste" policies, and the biomedical hegemony of "cure". *J. Black Stud.* 53, 385–410. doi: 10.1177/00219347221082327

Ataguba, O. A., and Ataguba, J. E. (2020). Social determinants of health: the role of effective communication in the COVID-19 pandemic in developing countries. *Glob. Health Action* 13:1788263. doi: 10.1080/16549716.2020.1788263

Bailur, S., Donner, J., Locke, C., Schoemaker, E., and Smart, C. (2015). Digital lives in Ghana, Kenya, and Uganda. Surrey, United Kingdom: Caribou Digital Publishing.

Bandura, A. (2004). Health promotion by social cognitive means. *Health Educ. Behav.* 31, 143–164. doi: 10.1177/1090198104263660

Bandura, A. (2009). "Social cognitive theory of mass communication" in Media effects: Advances in theory and research. eds. J. Bryant and M. B. Oliver. *3rd* ed. (Milton Park: Routledge), 94–124.

Beavis, C. (2013). Young people, new media and education: participation and possibilities. *Soc. Altern.* 32, 39–44. doi: 10.3316/informit.821977449633449

Bosch, T. (2022). Decolonizing digital methods. *Commun. Theory* 32, 298–302. doi: 10.1093/ct/qtac005

Calleja, N., AbdAllah, A., Abad, N., Ahmed, N., Albarracin, D., Altieri, E., et al. (2021). A public Health Research agenda for managing Infodemics: methods and results of the first WHO Infodemiology conference. *JMIR Infodemiol.* 1:e30979. doi: 10.2196/30979

Chaudron, S. (2015). Young children (0–8) and digital technology: a qualitative exploratory study across seven countries. Technical Report by the Joint Research Centre, the European Commission. doi: 10.2788/00749

DeJonckheere, M., and Vaughn, L. M. (2019). Semistructured interviewing in primary care research: a balance of relationship and rigour. *Fam. Med. Commun. Health* 7:e000057. doi: 10.1136/fmch-2018-000057

Ekoko, O. N. (2020). An assessment of health information literacy among rural women in Delta state, Nigeria. *Library Philosophy and Practice (e-journal)*:3533. Available at: https://digitalcommons.unl.edu/libphilprac/3533

Esan, D. T., Fasoro, A. A., Odesanya, O. E., Esan, T. O., Ojo, E. F., and Faeji, C. O. (2018). Assessment of self-medication practices and its associated factors among undergraduates of a private University in Nigeria. *J. Environ. Public Health* 2018, 5439079–5439077. doi: 10.1155/2018/5439079

Geertz, C. (1973). The interpretation of cultures: Selected essays. New York: Basic Books.

Harding, A. (2022). Was South Africa ignored over mild omicron evidence? *BBC News*. January 20. Available at: https://www.bbc.com/news/world-africa-60039138

Islam, K. F., Awal, A., Mazumder, H., Munni, U. R., Majumder, K., Afroz, K., et al. (2023). Social cognitive theory-based health promotion in primary care practice: a scoping review. *Heliyon* 9, e14889–e14825. doi: 10.1016/j.heliyon.2023.e14889

Kannampallil, T. G., Franklin, A., Mishra, R., Almoosa, K. F., Cohen, T., and Patel, V. L. (2013). Understanding the nature of information seeking behavior in critical care: implications for the design of health information technology. *Artif. Intell. Med.* 57, 21–29. doi: 10.1016/j.artmed.2012.10.002

Kearney, M. D., Chiang, S. C., and Massey, P. M. (2020). The twitter origins and evolution of the COVID-19 "plandemic" conspiracy theory. *Harvard Kennedy School Misinformation Review* 1. doi: 10.37016/mr-2020-42

Kelder, S. H., Hoelscher, D., and Perry, C. L. (2015). "How individuals, environments, and health behaviors interact: social cognitive theory" in Health behavior: Theory, research, and practice. eds. K. Glanz, B. K. Rimer and K. V. Viswanath. *5th* ed. (San Francisco, USA: Jossey-Bass/Wiley), 159–181.

Lawless, B., and Chen, Y.-W. (2019). Developing a method of critical thematic analysis for qualitative communication inquiry. *Howard J. Commun.* 30, 92–106. doi: 10.1080/10646175.2018.1439423

Lupton, D. (2021). Young People's use of digital health Technologies in the Global North: narrative review. *J. Med. Internet Res.* 23:e18286. doi: 10.2196/18286

Luszczynska, A., and Schwarzer, R. (2020). "Changing behavior using social cognitive theory" in The handbook of behaviour change. eds. M. S. Hagger, L. D. Cameron, K. Hamilton, N. Hankonen and T. Lintunen (Cambridge, United Kingdom: Cambridge University Press), 32–45.

Lynch, J. (2013). "Aligning sampling strategies with analytic goals" in Interview research in political science. ed. L. Mosley (Ithaca, New York, USA: Cornell University Press), 31–44.

Machin Suarez, R. (2021). "From social perception and social representation to social imaginary in social psychology theory and research" in New waves in social psychology. ed. R. Machin Suarez (Cham: Palgrave Macmillan, Springer International Publishing), 111–138.

Madrid-Morales, D., Wasserman, H., Gondwe, G., Ndlovu, K., Sikanku, E., Tully, M., et al. (2021). Comparative approaches to Mis/disinformation| motivations for sharing misinformation: a comparative study in six sub-Saharan African countries. *Int. J. Commun.* 15:20.

Mcallister, E., George, L., and Nebehay, S. (2021). Exclusive: Up to 1 million COVID vaccines expired in Nigeria last month. Reuters. Available at: https://www.reuters.com/business/healthcare-pharmaceuticals/exclusive-up-1-million-covid-vaccines-wasted-nigeria-last-month-2021-12-08/.

McKinley, C. J., and Lauby, F. (2021). Anti-vaccine beliefs and COVID-19 information seeking on social media: examining processes influencing COVID-19 beliefs and preventative actions. *Int. J. Commun.* 15, 4252–4274.

Meppelink, C. S., Bos, L., Boukes, M., and Möller, J. (2022). A health crisis in the age of misinformation: how social media and mass media influenced misperceptions about COVID-19 and compliance behavior. *J. Health Commun.* 27, 764–775. doi: 10.1080/10810730.2022.2153288

Mohammed, A., and Adelakun, L. A. (2023). The 2021 Nigerian twitter ban: a text-analytics and survey insight into public reactions and outcomes in the early weeks of the ban. *Commun. Public* 8, 390–401. doi: 10.1177/20570473231209077

Nath, R., Imtiaz, A., Nath, S., and Hasan, E. (2021). Role of vaccine hesitancy, eHealth literacy, and vaccine literacy in young adults' Covid-19 vaccine uptake intention in a lower-middle-income country. *Vaccine* 9:1405. doi: 10.3390/vaccines9121405

Nearchou, F., Flinn, C., French, A., Hennessy, E., Kerin, L., and Linehan, C. (2022). Health literacy of COVID-19 and compliance with precautionary measures: a cross-sectional study in adolescents and young adults in Ireland. *Youth* 2, 165–180. doi: 10.3390/youth2020013

Neter, E., and Brainin, E. (2012). eHealth literacy: extending the digital divide to the realm of health information. *J. Med. Internet Res.* 14:e19. doi: 10.2196/jmir.1619

Newman, N., Fletcher, R., Schulz, A., Andı, S., and Nielson, R. K. (2020). Reuters institute digital news report. Oxford University. doi: 10.60625/risj-048n-ap07

Obasola, O. I., and Agunbiade, O. M. (2016). Online health information seeking pattern among undergraduates in a Nigerian university. *SAGE Open* 6, 1–9. doi: 10.1177/2158244016635255

Oh, Y. S., and Cho, Y. (2015). Examining the relationships between resources and online health information seeking among patients with chronic diseases and healthy people. *Soc. Work Health Care* 54, 83–100. doi: 10.1080/00981389.2014.987940

Okoroiwu, H. U., Ogar, C. O., Nja, G. M. E., Abunimye, D. A., and Ejemot-Nwadiaro, R. I. (2021). COVID-19 in Nigeria: account of epidemiological events, response, management, preventions and lessons learned. *Germs* 11, 391–402. doi: 10.18683/germs.2021.1276

Onoka, C., Hanson, K., and Hanefeld, J. (2015). Towards universal coverage: a policy analysis of the development of the National Health Insurance Scheme in Nigeria. *Health Policy Plan.* 30, 1105–1117. doi: 10.1093/heapol/czu116

Osei Asibey, B., Agyemang, S., and Boakye Dankwah, A. (2017). The internet use for health information seeking among Ghanaian university students: a cross-sectional study. *Int. J. Telemed. Appl.* 2017, 1–9. doi: 10.1155/2017/1756473

Park, C. L., Russell, B. S., Fendrich, M., Finkelstein-Fox, L., Hutchison, M., and Becker, J. (2020). Americans' COVID-19 stress, coping, and adherence to CDC guidelines. *J. Gen. Intern. Med.* 35, 2296–2303. doi: 10.1007/s11606-020-05898-9

Posel, D., and Ross, F. C. (Eds.) (2014). Ethical quandaries: Conversations from the field. Pretoria, Cape Town, South Africa: HSRC Press.

Ramsey, W., Heidelberg, R., Gilbert, A., Heneghan, M., Badawy, S., and Alberts, N. (2019). eHealth and mHealth interventions in pediatric cancer: a systematic review of interventions across the cancer continuum. *Psycho-Oncology* 29, 17–37. doi: 10.1002/pon.5280

Rantala, A., Enwald, H., and Zinn, S. (2019). Web-based health information seeking: a small-scale comparative study between Finnish and south African university students. *Library Hi Tech* 37, 933–944. doi: 10.1108/LHT-08-2018-0109

Reuters Factcheck (2021). List of claims about Bill Gates includes falsities. March 26. Available at: https://www.reuters.com/article/fact-check/list-of-claims-about-bill-gates-includes-falsities-idUSL1N2LO230/.

Soellner, R., Huber, S., and Reder, M. (2014). The concept of eHealth literacy and its measurement. *J. Media Psychol. Theor. Methods Appl.* 26, 29–38. doi: 10.1027/1864-1105/a000104

Sommariva, S., Mote, J., Ballester Bon, H., Razafindraibe, H., Ratovozanany, D., Rasoamanana, V., et al. (2021). Social listening in eastern and southern Africa, a UNICEF risk communication and community engagement strategy to address the COVID-19 Infodemic. *Health Secur.* 19, 57–64. doi: 10.1089/hs.2020.0226

Spies, S. (2020). How misinformation spreads, V1.0. MediaWell, Social Science Research Council. Available at: https://mediawell.ssrc.org/literature-reviews/how-misinformation-spreads/versions/1-0/.

Swart, J., Peters, C., and Broersma, M. (2018). Shedding light on the dark social: the connective role of news and journalism in social media communities. *New Media Soc.* 20, 4329–4345. doi: 10.1177/1461444818772063

Sweeney, A., Wilson, D., Resnicow, K., and Kitzman, H. (2023). Engagement with tailored physical activity content: secondary findings from the families improving together for weight loss randomized controlled trial. *J. Med. Internet Res.* 25:e42581. doi: 10.2196/42581

Tsai, M., Chou, Y., Lin, S., and Lin, S. (2012). Factors associated with adolescents' perspectives on health needs and preference for health information sources in Taiwan. *Arch. Dis. Child.* 98, 9–15. doi: 10.1136/archdischild-2012-301629

United Nations Development Programme (2020). The impact of COVID-19 in Nigeria. Available at: https://www.undp.org/nigeria/publications/impact-covid-19-pandemic-nigeria-socio-economic-analysis-brief-1.

Uwalaka, T., Nwala, B., and Chinedu, A. C. (2021). Social media, fake news and fake COVID-19 cures in Nigeria. *J. Afr. Media Stud.* 13, 435–449. doi: 10.1386/jams_00058_1

Uzuegbunam, C. E. (2022). "Negotiating youth-centred research: ethical reflections on research with young people in rural and urban spaces in Nigeria" in Ethics and integrity in research with children and young people. ed. G. Spencer (Bingley, United Kingdom: Emerald Publishing Limited), 43–55.

Uzuegbunam, C. E. (2024). Children and young People's digital Lifeworlds: Domestication, mediation, and agency. Cham: Springer/Palgrave Macmillan.

Willmott, T., Pang, B., Rundle-Thiele, S., and Badejo, A. (2019). Weight management in young adults: systematic review of electronic health intervention components and outcomes. *J. Med. Internet Res.* 21:e10265. doi: 10.2196/10265

World Economic Forum (2022). Why Africa's youth hold the key to its development potential. September 19. Available at: https://www.weforum.org/agenda/2022/09/why-africa-youth-key-development-potential/.

World Health Organisation (2020). Everyone's business: Whole-of-society action to manage health risks and reduce socio-economic impacts of emergencies and disasters: Operational guidance. Geneva: World Health Organization.

Worldometers (n.d.) Coronavirus Data, Nigeria. Available at: https://www.worldometers.info/coronavirus/country/nigeria/.