

**ASSESSING PUBLIC RECEPTION AND EFFECTIVENESS OF
NIGERIA CENTRE FOR DISEASE CONTROL'S COVID-19
SHORT MESSAGE SERVICE (SMS) CAMPAIGN IN ALABATA,
SOUTH-WEST, NIGERIA**

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ABSTRACT: The study investigated the effectiveness of the text messaging strategy employed by the Nigeria Centre for Disease Control (NCDC) in curbing the spread of COVID-19 in Alabata community. It aimed to explore public perceptions of the NCDC's COVID-19 Short Message Service (SMS) and its implications for public health communication. A qualitative approach was adopted, using both primary and secondary data sources. The primary data comprised interviews with 20 participants, 11 males and nine females whose educational backgrounds ranged from PhD holders to individuals with no formal education. Interviews were conducted in Yoruba, English, and Pidgin English, based on participant preference. The interview data were content-analysed, while the SMS texts were examined through textual analysis. Findings indicated that while the text messages increased public awareness about COVID-19, they did not significantly alter beliefs or perceptions regarding the disease. Compliance with health protocols was often motivated by fear of enforcement rather than the messages themselves. Factors influencing message reception and interpretation included education level, language barriers, social status, poverty, distrust in government, and timing of message delivery. The study emphasized the importance of incorporating cultural contexts into public health communication. It recommended that the NCDC collaborate with relevant agencies to better understand the demographics of recipients and ensure inclusivity by translating messages into local languages. Furthermore, it suggested that the government address broader structural issues such as education, employment, security, and welfare to enhance the effectiveness of future public health initiatives.

Keywords: Public Health Communication, Short Message Service (SMS), COVID-19
Awareness, Message Reception, Cultural Context

INTRODUCTION

The media has evolved into a global communication powerhouse, with mobile phones enabling instant information sharing. During the COVID-19 pandemic, both traditional and digital media played critical roles in disseminating updates. As of 11 September 2022, 605 million confirmed cases and 6.4 million deaths have been reported globally (WHO, 2022). The COVID-19 pandemic disrupted global activities, highlighting the vital role of media platforms in disseminating information and raising awareness.

In Nigeria, traditional and digital media became essential tools for communicating government policies aimed at curbing the virus. Measures such as lockdowns, border closures, and bans on large gatherings were supported by media outlets like WhatsApp, Twitter, Facebook, radio, and SMS. These platforms ensured widespread dissemination of credible information, aiding the government's response. Despite these efforts, challenges like vaccine hesitancy and resistance to preventive measures persisted, reflecting gaps in public awareness and engagement. Studies by Fagbemi (2020), Ojerinde (2021), Ayogu and Egbara (2021), and Idris and Thompson (2023) underscore these ongoing difficulties. The media's role in addressing these challenges underscores its importance in public health communication and crisis management (Ngozika, Chinenye & Mathias, 2020).

This study assessed the effectiveness of the Nigeria Centre for Disease Control's (NCDC) COVID-19 short message service (SMS) campaign in influencing public behaviour in the Alabata community, located in southwest Nigeria. The research focused on three key questions: What were the key contents of the NCDC's COVID-19 messages? How did the Alabata community perceive the SMS campaign? And what are the implications of this perception for public health communication? The study aimed to explore how these messages were received and interpreted within a rural context, highlighting factors that shaped public engagement with the campaign. The findings are expected to provide valuable insights for both local and international stakeholders, particularly donors and policymakers, by revealing the challenges and opportunities involved in deploying text messaging as a tool for health communication. These insights carry significant relevance not only for managing the COVID-19 pandemic but also for informing strategies in future public health emergencies and development communication.

LITERATURE REVIEW

Existing research abounds on communication, types including new media, effects, factors that promote effective communication and those that hinder effective communication. Communication, whether verbal or non-verbal, remains a cornerstone of interaction (Buck & VanLear, 2002; Wigham & Chanier, 2013). The evolution of media from traditional forms to personal and mass communication underscores diverse communication methods, including gestures and silence, as critical tools (Khemesh, 2017). Most of these have further been modified or changed with the advent of the new media, globalisation and epidemics. Cultural identifiers like dress also serve linguistic and communicative roles (Olaoye, 2006; Adebisi, 2008). Moreover, modern symbols like emojis enhance non-verbal expression on social media platforms, highlighting the breadth of communication's influence. Reynolds and Quinn (2008) stress that

transparent, empathetic communication fosters public trust, encouraging positive behaviours. They argue that trust relies on credibility, demonstrated through empathy, competence, honesty, and commitment.

Effective communication plays a pivotal role in public health, especially during disease outbreaks (WHO, 2004). The World Health Organization (WHO, 2017) underscores the importance of accessible, actionable, credible, and trusted communication that is timely and relevant. Evaluating communication effectiveness involves seven steps: identifying areas for improvement, selecting tactics, creating indicators, conducting assessments, refining approaches, implementing changes, and measuring progress. Effective communication transcends content, requiring sensitivity to perceptions, attitudes, and emotions. As Leo (2018) cautions, understanding the strengths and limits of modern technologies is vital.

Advances in information technology have transformed communication methods significantly (Plumb, 2013), with innovations like smartphones enhancing accessibility and data dissemination (Rosenstein, 2015). Social media, as noted by Ngozika et al. (2020), serves as a powerful information channel in pandemics but also propagates misinformation, inciting fear. Laden et al. (2020) highlight its dual role in sharing and distorting information, with fake news influencing decisions negatively. Ahmad and Murad (2020) argue that factors like gender, status, and education shape social media's effectiveness during pandemics. Similarly, Obi-Ani et al. (2020) and Anwar et al. (2020) emphasise their role in both information dissemination and misinformation, advocating for more robust studies.

Among non-verbal methods, text messaging or Short Message Services (SMS) has gained prominence. SMS, facilitated by mobile phones, is valued for its accessibility and contextual relevance in education, yet it poses challenges (Geddes, 2006; Jones, Edward & Reid, 2009; Naughton, 2014). Grinter and Eldridge (2003) describe its rise as a mass communication tool, even for political mobilization. Campbell et al. (2021) found text messaging particularly effective in pandemic-related healthcare communication, such as patient scheduling.

Meinke and Martin (2017) caution that health promotion efforts may yield unintended outcomes, either beneficial or harmful. Text messaging has proven useful in public health communication but raises privacy concerns for personal health information (Karasz et al., 2013; Samora et al., 2018). The WHO endorses its use while emphasising its "Seven Cs of Communication": attention, clarity, benefits, consistency, trust-building, emotional/intellectual appeal, and action prompts (Gamhewage, n.d.). Lee and You (2021) found that emergency messages were crucial in reducing the spread of fake news and promoting compliance among readers, while those who ignored the messages were less likely to follow the guidelines. They recommended that health authorities continue using such messages. Ehondor and Unakalamba (2021) highlighted that during public health emergencies like the coronavirus pandemic, there is an overwhelming amount of information. With competing messages and heated debates on social media, public communications must go beyond raising awareness and actively engage the public. They argued that public engagement, where messages are designed to encourage interaction, is vital. Thus, the NCDC's communications should focus on both informing the public and fostering active participation. Sunday, Inobemhe, and Santas (2021) noted that having access to more information

helps people navigate difficult situations during pandemics. Santas et al. (2022) further stressed the importance of public education and utilising traditional communication channels to reach local populations in combating pandemics. In conclusion, the spread of misinformation about COVID-19 on social media significantly hampers long-term health progress.

However, progress measurement that relates to health promotion remains challenging in developing countries during outbreaks. Barriers to communication could arise from many factors ranging from language barriers, psychological, physiological, physical, attitudinal, cultural to systemic.

The NCDC and the Emergence of the Coronavirus Pandemic

Before 2001, Nigeria lacked an agency specifically tasked with epidemic management. This changed when the Centre for Disease Control and Prevention (CDC) in the United States established an office in the country. The CDC collaborates with both federal and state health departments to tackle issues such as Human Immunodeficiency Virus (HIV), tuberculosis, and malaria and to promote vaccine-preventable disease immunisation. It also works to enhance laboratory capabilities, surveillance, and workforce readiness to respond to disease outbreaks (CDC, 2019). In 2007, Nigeria established its own institution, the Nigeria Centre for Disease Control (NCDC), modelled after the U.S. Centres for Disease Control and Prevention. The NCDC was designed to effectively mobilise resources to respond to outbreaks and other public health emergencies (CDC, 2019).

The initial formal step towards establishing the Nigeria Centre for Disease Control (NCDC) occurred in 2011 when units from the Federal Ministry of Health—the Epidemiology Division, the Avian Influenza Project along with its laboratories, and the Nigerian Field Epidemiology and Laboratory Training Program (NFELTP)—were consolidated to form the core of the NCDC (Njidda et al., 2018). With the rise in infectious diseases such as Lassa fever, yellow fever, monkeypox, cholera, and new strains of pathogens like *Neisseria meningitidis* serogroup C, this amalgamation of units continued to manage epidemic responses. The bill to formally establish the NCDC was signed into law by President Muhammadu Buhari in November 2018 (NCDC, n.d.). The NCDC's mission for 2017–2021 is “to protect the health of Nigerians through evidence-based prevention, integrated disease surveillance and response activities, utilising a one health approach, guided by research, and led by a skilled workforce” (NCDC, n.d.).

Figure 1: Organogram of the NCDC



Source: (NCDC, 2020)

Figure 1 illustrates the organisational structure of the Nigeria Centre for Disease Control (NCDC), highlighting the critical role of communication within the agency, which is why it is placed directly under the Director-General. The novel coronavirus (COVID-19), a group of pneumonia cases caused by an identified β -coronavirus, emerged from Wuhan, China, in December 2019 (Guo et al., 2020). Initially, the World Health Organization (WHO) named the virus the 2019 novel coronavirus (2019-nCoV) on January 12, 2020 (Guo et al., 2020).

On February 27, 2020, Nigeria's Federal Ministry of Health confirmed the country's first coronavirus (COVID-19) case in Lagos State. The case involved an Italian citizen working in Nigeria who had returned from Milan, Italy, to Lagos on February 25, 2020. The Virology Laboratory confirmed the diagnosis at the Lagos State University Teaching Hospital, part of the NCDC's Laboratory Network (NCDC, 2020). Following the announcement of this initial case, Nigeria had, by June 2020, conducted 403,347 tests, with 54,008 confirmed cases, 11,357 active cases, 41,638 recovered cases, and 1,013 deaths as of September 1, 2020 (NCDC, 2020).

Public universities declared a nationwide strike on March 9, 2020, which was followed by a directive from the National Universities Commission (NUC) mandating the closure of all higher education institutions for one month starting on March 23, 2020 (NUC, 2020). Primary and secondary schools were also closed, leaving many youths and pupils at home. The federal government imposed a curfew restricting movement in Lagos, Ogun, and Abuja on March 29, 2020. However, Ogun State did not enforce this directive until April 2020. Since the study's location is a university community, residents relied heavily on the student population's support for their livelihoods. It was amidst this confirmation of the disease in Nigeria and its increasing rate that the NCDC decided to campaign against the spread of the disease through various media, including text messaging.

MATERIAL AND METHODS

Study Design

The study adopted a qualitative research design, drawing on both primary and secondary data sources. Primary data were obtained through in-depth interviews (IDIs) with community members and a textual analysis of the messages disseminated by the Nigeria Centre for Disease Control (NCDC). Secondary data were sourced from newspapers, academic journal articles, and credible online platforms. This research design facilitated a deeper understanding of the participants' subjective experiences and the broader contextual factors that influenced how the campaign was received and interpreted.

Study Location. and Period of Study

Alabata is a community situated in Abeokuta, within the Odeda Local Government Area of Ogun State, in southwest Nigeria. According to the 2006 national census, the local government had a population of approximately 109,449, which was projected to have increased to about 189,300 by 2022. Alabata is home to a federal university, contributing to a demographically diverse population that includes both educated and uneducated individuals, as well as people from various ethnic

backgrounds across Nigeria. While the exact population of the community is unknown, the number of indigenous residents is estimated to be at least 30,000. The primary occupations among the local inhabitants are farming and trading. The community was chosen for this study due to its role as a cultural intersection, accommodating Nigeria's three major ethnic groups—Yoruba, Hausa, and Igbo—alongside several minority groups, particularly students and migrants. The fieldwork for the study was conducted over three weeks, from 09/08/2020 - 03/09/ 2020.

Study Population

The study targeted individuals in Alabata community who received COVID-19 awareness text messages from the Nigeria Centre for Disease Control (NCDC). Participants were purposively selected to reflect diverse demographics, including age, gender, occupation, and literacy levels. Twenty participants were involved, based on data saturation—when no new insights emerged. Selection was based on willingness and confirmation of message receipt. Though most university students were off-session, a few lecturers and postgraduate students participated. Interviews were conducted in English, Pidgin English, and Yoruba, depending on preference. Eighteen participants spoke English or Pidgin, while two used Yoruba. There were 11 males and nine females. Interviews were recorded using a phone recorder, and for those unable to attend in person, responses were collected via WhatsApp messages. The participants represented a wide educational spectrum, ranging from individuals with PhDs to those with no formal education. In all cases, informed consent was obtained before participation. The researcher observed all COVID-19 safety protocols during the fieldwork.

Data Collection Methods

Primary data for the study were collected through In-Depth Interviews (IDIs) and analysis of text messages sent by the Nigeria Centre for Disease Control (NCDC). Semi-structured interviews were conducted with selected participants to gain detailed insights into their experiences, understanding, and perceptions of the messages. Sample questions included: “Can you describe your reaction upon receiving the text messages?”, “What aspects of the messages were most helpful or unclear?”, and “How did the messages influence your behaviour or perception of COVID-19?” The NCDC messages were also examined to assess their content, tone, and relevance.

Data Analysis

The data for the interviews was analysed primarily through content analysis, while textual analysis was used for the short message services (SMS). Data collected were themed based on similarities. This involved familiarisation with data, coding, categorisation and analysis. This was done in accordance with the qualitative data analysis techniques by Tsegnyu, Kelvin, and Nick-Tansi (2022). The findings of the study were discussed alongside the study's objective and the literature reviewed. However, the limitations of the study lie in the fact that it may not be generalizable to all communities due to the qualitative nature of the study.

FINDINGS

The NCDC, through its media releases, was able to raise awareness about the Coronavirus pandemic in the absence of a cure. The campaign was done through various means such as social media or new media, newspapers, collaboration with television owners among others. For example, on 7 August 2020, the NCDC lunched some hash-tags such as #MaskOnNaija, #maskingForAFriend and #takeResponsibility (NCDC2020b). However, one medium that became popular was the text messages.

NCDC SMS campaign and Awareness

As the general public became concerned about contracting the disease and many refused to go for tests even where the facilities were available, the NCDC sent out messages to Nigerians saying, “Remember, COVID-19 is not a death sentence, and a recovered patient cannot spread the disease. Do not stigmatise. Report symptoms to your state hotline” (NCDC SMS, 30-4-2020).

When the federal and state governments imposed a lockdown across the country, the NCDC reminded Nigerians to abide by the laws. In a text message it sent in May, 2022, it stated, “Do not travel out of your state at this time. Please follow the rules place established by health authorities so we can quickly reduce the spread of coronavirus” (NCDC SMS, 5-5-2020). Following the news that some people were still travelling despite the lockdown and its earlier messages and campaigns, it sent another, “There are coronavirus cases in almost all Nigerian States, even those who have not travelled. Anyone can be affected. Follow guidance from health authorities” (NCDC SMS, 7-5-2020). Less than three days later, it sent another message asking anyone who had a cough and fever to stay at home and call their state hotline. It also asked those concerned to find their state numbers at <https://covid19.ncdc.gov.ng/contact/> (NCDC SMS, 10-5-2020). In order to reiterate the social distancing rule, it sent another text stating that most people with COVID-19 may not show any signs but could still spread the disease. The agency then enjoined the receivers to protect themselves by staying two meters away from the next person and using a mask (NCDC SMS, 14-5-2020).

The agency asked the public who knew someone who had met with a COVID-19 patient to be supportive and encourage the person to call their state hotline for testing (NCDC SMS, 17-5-2020). However, after the lockdown was lifted, it encouraged the general public to make sure they moved around by following all the laid down safety protocols. As stated in its message: “As you go about work or business, wear a face mask, wash your hands with soap and water, and stay at least 2 metres away from another person. Take responsibility” (NCDC SMS, 19-5-2020). But due to the asymptomatic nature of some carriers of the disease, the agency warned the general public that most people with the virus may not show any signs but could still spread the disease. It then requested people to always protect themselves by staying two metres away from the next person and using a face mask (NCDC SMS, 22-5-2020).

Similarly, the NCDC stated via its text message: “COVID-19 is NOT the same as malaria. Both may present with fever, and both diseases can come at the same time. The PCR test effectively detects COVID-19 in patients” (NCDC SMS22-5-2020). In spite of these measures, fake news

about the disease was rife. To dispel such fake news and misinformation, the NCDC stated that the disease is real and that many of the country's health workers were risking their lives to protect the general public. It then encourages people to take responsibility, be supportive, and stop the spread of fake news (NCDC SMS 28-5-2020).

Fatigue

The NCDC realised that many people adhered to wearing face masks in various shapes, sizes and even forms that were not scientifically tenable, and by virtue of wearing the mask, many thought that there was no need to maintain other safety protocols. To put it in line, the NCDC wrote, "Wearing a mask alone cannot prevent COVID-19. In addition to mask, wash hands frequently, stay 2 metres away from others and disinfect commonly touched surfaces" (NCDC SMS 1-6-2020). To further educate the people on handling facemasks, it stated, "A face mask can spread disease if not handled properly. Take responsibility. Wash your hands before and after wearing it. DO NOT share and ALWAYS wash before reusing" (NCDC SMS, 3-6-2020). It also admonished people to understand that those who contracted the virus are human beings, so the general public should disprove the belief that the virus only affects certain people (NCDC SMS 5-6-2020).

It must be noted that during the lockdown, fake news was prevalent. An example was the news that the NCDC was going to share some funds as palliatives. To debunk the news, the NCDC stated, "NOTICE: Any information on relief funds being shared by NCDC for the lockdown is FALSE. Please take responsibility by verifying information before sharing" (NCDC SMS, 10-6-2020).

Innovations through USSD, yet Distrust

The NCDC also advised against large gatherings to reduce the risk of becoming infected since scientists have not found a certified drug for the disease (NCDC SMS, 12-6-2020). It also created an unstructured supplementary service data (USSD) code so that individuals could, at their convenience, assess their COVID-19 health status. No doubt that, apart from being new, it was to accelerate individual assessment. As the message stated, "If you suspect that you or a loved one may have been exposed to COVID-19, please dial *258*258# for the COVID-19 self-assessment toll. Take Responsibility" (NCDC SMS 17-6-2020). The agency continued to counsel the general public on the need to follow established protocols and take responsibility. For instance, it stated, "Wearing a mask helps protect us from the droplets that carry the COVID-19 virus. Please take responsibility for your health and for your loved ones" (NCDC SMS, 28-7-2020).

In order to appeal to religious organisations, especially during the Sallah celebration- the Muslim faithful, it sent a message which read, "Happy Sallah! Observe Eid prayer in small groups. For safety and others, wear a mask, maintain physical distancing and people over 50years old should worship at home" (NCDC SMS 30-7-2020). It also warned against self-medication as it could be dangerous for one's health (NCDC SMS 12-8-2020) and employment fraud in its name (NCDC SMS 21-8-2020). The agency continued to send messages to the general public as events unfolded and to educate them on the news and actions of the agency on major developments regarding the pandemic.

Public Perception and Responses to Text Messages

Since the messages were meant for the general public and communication is not complete until it passes the message, all the respondents affirmed that they received the messages. But what they do with the messages and how they react to them remains a puzzle that has not been given adequate scholarly attention. This study examined the reactions of some selected people in Abeokuta.

A respondent stated that he reads them and acts on them. According to him, “I read them to get any new information from the body concerning the pandemic. I used a mask when I needed to and not because of the messages” (Respondent 1/Male/PhD in view/ WhatsApp 9 August 2020:1:22pm). Another respondent stated that she usually read it and discarded it immediately since she got what the message was trying to pass across, but that after some time, I stopped believing COVID-19 existed because it was politicised and appeared that it was only killing the rich (Respondent 2/Female/BSC/ WhatsApp/9 August 1:39 pm). Another respondent puts it thus, “Yes. I received messages from NCDC. I, however, work on them, and I do that to keep myself updated about the issues surrounding COVID-19, not only for myself but for other members of my family (Respondent 3/Male/PhD/ WhatsApp/14 August 2020, 1:30 pm). Another respondent stated that anytime she got a message during the lockdown, she usually thought it was a bank credit alert, but when she realised that it was from the NCDC, she usually deleted it without reading it. She claimed that she used to read them at first but later lost interest in getting updates from the agency (Respondent 4/Female/First School Leaving Certificate/ 21-8- 2020).

Loss of Interest and language barriers

Another aged woman said she doesn't know what the NCDC stands for, but her children informed her of the agency and that since she hadn't learned, she didn't know why they should send her such text messages in English. She stated that she was not moved by whatever was in the message but on how to survive (Respondent 5/female/No formal education/28 August 2020). Supporting the view, a technical staff with a Federal University in the town also stated that though he usually read the messages, he also deleted them immediately because he didn't think the Coronavirus was as scary as the government made it seemed (Respondent 6/Male/HND/2 September 2020). Another respondent stated that he received messages from NCDC but deleted them immediately because it scared him, and he could not cope with seeing the messages on his phone, coupled with the news of people dying of COVID-19 (Respondent 7/male/ND/2 September 2020).

Another respondent stated that he usually deletes the message once he sees it because, apart from not believing in the coronavirus, he doesn't think that was what was expected, particularly from a man who has been unemployed and needed to survive during the lockdown and aftermath (Respondent 8/male/BSc/ 2 September 2020). Supporting this view, a respondent puts it thus, “*emi ma n gbonkuroninu ago mi, nitoriebi n pa arailu*---I used to delete the message from my phone because people are hungry” (Respondent 9/female/ BSc/1 September 2020).

Meanwhile, another respondent said she usually read the messages and also worked on it in order to prevent the pandemic. However, she said that following the protocols was not only influenced by the messages but also by events around her (respondent 10/Female/PhD/WhatsApp/1

September 2020). She, however, wondered why the president never put on masks and why some politicians have consistently flouted directives. To support the argument, even when President Muhammadu Buhari insisted that the citizenry always put on masks, he was seen on several occasions without a nose mask (Isenyo, 2020).

Another respondent opines that her children usually inform her that a message comes from NCDC and that while the Government did not consider the health of the people, including herself being aged, the government did not consider her welfare to know if she had eaten even to read their message (respondent 11/ female/Primary School Leaving Certificate/ 1 September 2020). Another respondent opines that initially, he read and believed the messages, but after about two weeks, he stopped reading them and deleted them immediately after he received the messages on his phone (Respondent 12/male/BSc/2 September 2020). Meanwhile, another respondent who lauded the role the NCDC played in advancing awareness stated that at a time, it became infuriating as it could come when one was expecting an important message or when one was angry (Respondent 13/male/ BSc/ 2 September 2020). Another aged woman puts it thus:

Mi ko mosugbonniojoimi, ijoto n se amaju to arun ko ba ma ran ate naasiodoawoneniyani nipa bi won se moiwesi. Awa kan ko ka iwe, ko je ki won juniedegeesi. Awa kanwatiebi n pa, ijona ko bereboyaatiyo tabi aw ani ileraara?
—I do not know if they send any message but it would have been better if the agency would have sent the messages based on the level of proficiency or education or background. This is because we are not all educated or English proficient. More so, some of us are hungry but the agency did not ask if we have eaten or we are healthy? (Respondent 14/No Primary Education/Female/2 September 2020).

Distrust and Economic Hardship

Another respondent stated that it was irresponsible for the government to send him messages through its agency known as NCDC when millions are dying of hunger. He said he never took the messages seriously except when he was going to formal places such as banks, churches, etc. (Respondent 15/ Secondary School Certificate/ Male/ 3 September 2020). Another opined that since he heard about the amount the NCDC used to send SMS to people, their messages have started disgusting him, so he does not even bother to read or to leave them on his phone; he wondered why they sent messages to the ordinary people when politicians held rallies without observing covid-19 protocols (Respondent 16/ NCE/ Male/ 3 September 2020).

In reaction from the respondent said that instead of giving us money, our leader gave us an SMS. What will SMS will do for me when I am hungry? Please, I am begging the leaders of this country. This offer of SMS cannot help me; I need money to buy what to eat, no SMS (Respondent 17/ Secondary School Certificate/ Female/ 3 September, 2020). Another respondent said that communication through SMS is a key part of the COVID-19 strategy but advised on how to make it more effective. As he clearly puts it:

But it is failure by those responsible to bring about the needed intervention measures to the citizenry during this challenging period. The SMS is the only intervention that

has been frequently available to the citizen, while hunger is at many homes. We need money not SMS people need food. The Hunger Pandemic need much attention and response than COVID-19 SMS (Respondent 18/ HND/ Male/ 3 September, 2020).

Meanwhile, another respondent stated that while the NCDC was doing their job and it was commendable to ask the public to adhere to their health safety in order to stop the spread of COVID-19, he would oblige the agency and government to also prioritise palliative since he could be considered for SMS (Respondent 19/ Master's in View/ Male/ 3 September 2020). Traders in the area lamented the impact of the strike and lockdown on their businesses and wondered why the government should be sending messages in text and not food relief, clothing and, above all, the opening of schools (Respondents 5, 11, 14, 15). To respondent 5:

My son, imagine we are old and depend on what we sell to the students as our source of livelihood. Now, the government is sending us messages that my grandchildren usually interpret for me. Is that how I will survive and feed myself? The government should be taking care of me at this age and during this period since the school that we depend on is on strike. How I wish I had caught the person sending that kind of message to me; I would have eaten him/her up. We are hungry!

Aside from the above, the issue of distrust and belief that the NCDC was working in cahoots with the international community to inject the people with the mandatory vaccine, which to some people is a sign of the 666, was also given (Respondents 1, 2, 3, 4, 5, 6, 10, 16, 17 and 18). In fact, respondent 20 held that even the United States president, Donald Trump, did not believe in the virus, and she wondered why she was forced to believe in it (Respondent 20; Secondary School Certificate/ Female/ 2 September 2020).

Discussion of Findings and Implications for Effective Public Health Communication

The study found that text messages were used as a form of communication, among other channels. Secondly, people reacted differently to the messages at the beginning and later, and their later reactions stemmed from many factors. The first finding shows that messages were sent by the Nigeria Centre for Disease Control (NCDC) at all times to not only enlighten the populace but also persuade them of the reality of the COVID-19 pandemic. The idea behind sending text messages to raise awareness has revealed that the majority of respondents either received the messages or were informed of such messages by their relatives. Many of the participants who could not read initially called on their relatives and family to help them interpret the messages. With the initial zeal to always read the messages, many started to lose interest.

Secondly, while residents of Alabata initially welcomed the NCDC's text messages during the early weeks of the COVID-19 outbreak, interest and engagement quickly declined. Over time, many recipients found the constant alerts irritating and began to delete the messages without reading them, especially upon seeing "NCDC" as the message header. Several factors contributed to this growing apathy and resistance. These included economic hardship, frustration linked to prolonged school closures due to strike actions, existing beliefs and religious views, conspiracy theories claiming COVID-19 was fabricated, poor timing of message delivery, and illiteracy,

which prevented some individuals from understanding the messages. The exclusive use of English further alienated residents with limited formal education, reducing the messages' impact. Misinformation from influential figures compounded the issue. Despite efforts by the NCDC to counteract disinformation, several high-profile individuals who recovered from COVID-19 publicly questioned the virus's severity or equated its symptoms with malaria. Some claimed they were only treated with malaria drugs while in isolation. Notably, figures such as Bauchi State Governor Bala Mohammed, Doyin Okupe, and Chief Raymond Dokpesi made statements that reinforced public scepticism (Point Blank News, 2020; Egbas, 2020; Babatunde, 2020). Governor Mohammed, for example, recommended chloroquine and Zithromax based on his personal experience. In response, the Federal Government urged recovered patients to refrain from revealing the medications used. As Boss Mustapha, the Chairman of the Presidential Task Force on COVID-19, puts it:

The PTF congratulates and appreciates the testimonies of Nigerians who have recovered from COVID-19, which has given us more insights and further strengthens the need to adhere strictly to the guidelines issued. However, an emerging issue from all these testimonies is the issue of prescription for treatments. We should always remember that the symptoms of COVID-19 mimic some illnesses we already know, but treating the symptoms is not the same as treating the virus. For this reason, we strongly discourage self-medication (State House Briefing 2020).

Reports also emerged suggesting that some state governors did not believe in the existence of the virus (Obansa, 2020) since they prioritised politics over health and lives. This manifested in some states like Edo and Oyo States, where political rallies were held, thereby further undermining public health messaging and public distrust (Omolaloye & Egbejule, 2020). This finding is in line with Thompson and Onifade (2021) and Idris and Thompson (2023), who found that in spite of the awareness on the knowledge of the coronavirus, public reaction was docile because of many factors such as double-dealing, religion, fake news, the politicisation of issues, and international influence.

The two findings have implications for health communication, no doubt. It is trite to say that the NCDC did not properly consider the WHO's seven Cs (commanding attention, clarifying messages, communicating benefits, consistency counts, catering to the heart and head, creating trust and calling to action) in choosing the SMS technique, even though it served the purpose of reaching out to the general public in the community in Abeokuta. Any wonder then that Moles et al. (2023) note that The *Seven Cs* foster a growth mindset feedback loop in which members learn to self-reflectively apply a social diagnostic approach to their own digitally mediated well-being, thereby potentially improving organizational communication. While the agency was able to command attention, clarify messages, and maintain consistency, it failed to cater to the hearts and heads, create trust, and call to action since the political elite, including the head of state, failed to adhere to the messages. Based on the above discussion, the NCDC failed to account for cultural differences, literacy, and socioeconomic status, among other things.

Conclusion

The study highlights that while text messages successfully raised awareness about COVID-19 in the Alabata community of Abeokuta, they fell short of convincing residents of the virus's reality. Various factors contributed to this shortfall, including poverty, economic status, cultural beliefs, religion, conspiracy theories, illiteracy, language barriers, and poor timing. These factors influenced how recipients interpreted and responded to the messages. The study concludes that although awareness improved, the messages failed to shift public perceptions or foster trust in the government's handling of the pandemic due to underlying issues such as fatigue, illiteracy, and widespread distrust.

In light of these findings, the article recommends that both local and international non-governmental organisations manage public health information more carefully to prevent unintended consequences in other communities. It suggests that agencies involved in health communication and policymaking should integrate cultural, economic, and political considerations into their strategies. Specifically, it urges the Nigeria Centre for Disease Control (NCDC) to collaborate with bodies such as network providers, the National Orientation Agency (NOA), and the National Bureau of Statistics to create a demographic register. This would help tailor messages effectively to different public groups. The article also emphasizes the need for messages to be translated into local languages to include uneducated populations and ensure broader accessibility. Additionally, it calls for inclusive communication strategies that consider the physically challenged and other vulnerable groups. Finally, it urges all tiers of government to implement meaningful policies in education, security, economic stability, and social welfare beyond mere rhetoric.

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