

## **INCLUSIVITY OF COMMUNICATION-IMPAIRED PERSONS IN COVID-19 COMMUNICATION STRATEGIES IN SOUTH- WEST NIGERIA**

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**ABSTRACT:** The outbreak of the COVID-19 pandemic in 2020 compelled the Nigerian government to introduce measures to contain or stop the spread—deploys, among other measures, strategic communication towards mobilising citizens accordingly. As most messages usually target regular people with the ability to communicate, it is not certain if the fates of communication-challenged persons are considered. This study examined whether a communication strategy for COVID-19 containment and vaccination took note of communication-challenged persons and explored the ease with which communication-challenged persons interpreted, understood and responded to COVID-19 protocol messages and vaccine campaigns. The in-depth personal interview (IPI) method was adopted. Seven persons with communication impairment were chosen randomly through a convenient sampling technique because of their views on the various communication strategies and tactics used to communicate COVID-19 messages in relation to them. The results show that communication-challenged persons were excluded from communication; hence, they were unlikely to be able to relate COVID-19 communication messages, with implications that compliance with COVID-19 protocols was probably weak or breached. The study concludes that communication strategies for COVID-19 protocols and vaccination campaigns are not inclusive of deaf and blind individuals, implying that they may have found it difficult to follow instructions on COVID-19 protocols and vaccination campaigns. The study makes a unique contribution to the need for proper targeting and appropriate messaging in health communication – making communication inclusive. The study recommends that strategic documents such as this should be intentional and inclusive in their design such that challenged persons are adequately considered in framing communication messages for COVID-19 or any pandemic and vaccination campaigns.

**Keywords:** Inclusive Communication, Intentional Communication, Strategic  
Communication, Protocol and Vaccination Campaign

### **INTRODUCTION**

The sudden outbreak and spread of the COVID-19 pandemic caused the Nigerian government to introduce measures to contain, control or stop its spread. Some such measures include strategic communication and physical interventions as well as vaccination efforts, each of which has different degrees of effectiveness. Strategic risk communication was apparently targeted at able-bodied Nigerian citizens who can see, read, hear and understand communication messages without external support. However, Nigeria is made up of both

able-bodied and communication-impaired citizens. By designing communication messages to be accessible only to those with hearing, seeing and reading ability, a situation is created in which those with hearing and sighting challenges are completely excluded from relating to the messages; hence, such communication would lack effectiveness.

Effective communication includes both verbal and nonverbal cues. If only verbal communication is adopted in the campaign, many of the target audience may be excluded from receiving and interpreting/participating in the behaviour change envisaged, hence the need to make communication more inclusive (Gladwell, 2000). The success of campaigns depends on how well the target audience understands and responds to messages, especially in relation to the management and control of COVID-19 or similar pandemics in the future.

### **Statement of the Problem**

Major approaches to containing the spread of the pandemic include changing communication strategies, which are expected to help control or halt the spread of the disease and encourage citizens to embrace the COVID-19 vaccination. When properly targeted, communication messages can engender expected responses, such as behaviour change. For a piece of strategic communication to be successful, it should consider the target audience's ability to decipher the communication content and act in accordance with the campaign objectives. The problem, however, is that persons with communication challenges—hearing or reading—may not have been adequately included in the communication design architecture in the strategic communication campaign on prevention and vaccine adoption, considering their special needs. Consequently, the ability of this target group to understand and follow up with the messages may have been hampered, as may their capacity to comprehend and follow instructions. If this was the case, it follows, therefore, that any report on the success of the communication strategies would necessarily lack inclusiveness, as the views and responses of this group of Nigerians may not have been sought. These are the grounds for this study.

### **Objectives of the Study**

The key objective of this study is to determine the extent to which persons with communication impairment—in terms of hearing, sensing and reading—were adequately included in the framing and design of the communication strategies used during the COVID-19 campaigns. The specific objectives are as follows:

1. To determine how the communication strategies for the COVID-19 protocol and vaccination campaigns are inclusive of all classes of people in Nigeria;
2. To ascertain the extent to which communication targeting is considered for persons with communication challenges;
3. To examine how easily or otherwise people with communication challenges interpret, understand and respond to COVID-19 protocol messages and vaccine campaigns;
4. To explore possible ways of making COVID-19 and vaccination messages more inclusive for persons with communication challenges.

### Research Questions

1. To what extent was the communication strategy for the COVID-19 protocol and vaccination campaigns inclusive of all classes of people in Nigeria?
2. To what extent was the communication targeting the considerate of persons with communication challenges?
3. How easily or otherwise were people with communication challenges able to interpret, understand and respond to COVID-19 protocol messages and vaccine campaigns?
4. What other possible ways could COVID-19 and vaccination messages be made more inclusive for persons with communication challenges?

### LITERATURE REVIEW

According to the World Health Organisation (WHO, 2020), science has provided answers, evidence-based guidance and solutions, including vaccines, new diagnostics and therapeutics, to epidemic outbreaks. However, it is believed that the infodemic of misinformation and disinformation and a lack of access to credible information shape public perception, which could undermine the application of evidence-based responses. Comprehensive preparedness and emergency response systems are needed to protect populations from disease outbreaks, natural and human disasters, armed conflicts and other hazards in many countries (WHO, 2020).

Nevertheless, the application of strategic health communication strategies is essential to obtaining the right responses to efforts. According to Colle (2003:44), health communication has been a part of development communication for the past five decades. Initially, health communication was concerned with population and family planning programs, emphasizing reproductive health, but today, according to Malikhao (2016), it has emerged as an integration of health-related aspects of individuals, communities, and organizations or their environment, with appropriate communication and mass communication theories underpinning its use.

The communication process enables a person to pass on information, express their ideas and feelings, understand other people's thoughts and emotions, and ideas. Communication disorder or impairment is a situation that affects a person's ability to detect, receive, process, and comprehend the concepts or symbols necessary for effective communication. Tee-Melegrito (2023) explained that it can affect hearing, language, and speech in children and adults. Somefun, Lesi, Danfulani and Olusanya (2005) state that communication disorders have been acknowledged as major public health issues because they compromise early childhood development, restrict vocational attainment and undermine the economic well-being of society. Hearing impairment is the most common communication disorder, and early detection and appropriate follow-up are suggested for all children in their first year of life.

### Conceptual Review

The study adopts a conceptual framework of diversity, equity and inclusion—a rapidly expanding concept in every aspect of life in democratic societies. Inclusion also promotes fair

treatment and maximal engagement of individuals and groups of different backgrounds. It is important to consider this framework with the aim of eliminating discrimination on the basis of peoples' backgrounds and identities or abilities. In this context, Velumyan (2021) and Tomlinson (2021) state that beginning in the 1960s, ethical standards have progressively evolved and shaped every field of our activities, including education and career, corporate policies and government regulation, with their roots in civil rights movements, which morphed into a broader concept of diversity and inclusion. Conceptually, the quest is to recognise fair dealing with people's differences, including race, gender, religion, sexual orientation, age, ethnicity, cultural background, education, language, socioeconomic status, physical and mental abilities and more.

In its original form, the focus of the movement was on attracting fair treatment for those who were historically excluded or limited from public life because of their gender, race, religion and other differences. Progressively, however, the term "inclusion" gained entry into the diversity concept; this term aimed at eradicating intolerance and discrimination by making every person feel welcome and accepted. In its development trajectory, the idea of diversity and inclusion was further bolstered by one further element known as "equity," which means equal access to opportunities for everyone (Velumyan, 2021).

To bring these ideas to life, effective communication is considered a core requirement of diversity, equity and inclusion (DEI) leadership. It operates beyond just interacting but includes respect for all in matters of words and actions—a communication standard that needs to become the new norm and a starting point for a successful implementation of diversity, equity and inclusion. DEI is promoted primarily by a theory of politeness principles (Leech, 1983; Santos, Nuraini & Kasiyarno, 2021), which advises, in part, in its negative form, "minimize (other things being equal) the expression of impolite beliefs" and, in the corresponding positive form, "Maximize (other things being equal) the expression of polite beliefs." The politeness principles, according to Leech, function in the following ways: to minimize conflicts, especially in diverse groups, organizations, and communities; establish feelings of inclusion and social relationships, regardless of people's differences; and to provide advancement for each person by providing the right kind of support.

### **COVID-19 and the pandemic protocol campaign**

The status of COVID-19 increased to pandemic status on March 11, 2020. According to Onyeji (2020), COVID-19 was first identified in December 2019 in Wuhan, China. The World Health Organisation (WHO) pronounced it a Public Health Emergency of International Concern in early January 2020. It then dawned to nations all over the world, including Nigeria, that they had to brace up for a serious emergency. This entailed making strategic decisions, including communication, with which to contain a scourge with almost everlasting effects on humanity.

As the World Health Organisation (WHO), with its headquarters in Geneva, Switzerland, has put it in less than three months, the dreaded disease has proliferated around the globe, emerging on every continent except Antarctica and prompting many governments and businesses to try to stop travelling or gather in crowded places, with the ugly attendant consequences of grounding all social, economic and political activities across the world. Its

entry into Nigeria was as dramatic as it was effectual. As Onyeji states, “It was a Thursday afternoon on February 27, 2020, when authorities announced that an Italian tested positive for the disease, two days after he flew into the country via a Turkish airline that landed at the Lagos airport. The case was the first in West Africa and the third to be confirmed in Africa after those in Egypt and Algeria. According to Lagos health authorities, the Italian upon arrival stayed in a hotel near the airport on the evening of February 25, 2020, before proceeding to his place of work in neighbouring Ogun state the following day”. Just days after Nigeria experienced a second case, the World Health Organisation (WHO) elevated the standing of the COVID-19 outbreak from an epidemic to a pandemic on March 11. The global health agency went on strongly alerting every country to “detect, test, treat, isolate, trace, and mobilise their citizens to ensure that those with just a handful of cases could prevent the wider spread of the deadly virus”.

### **Communication Management of COVID-19**

Undoubtedly, one of the strongest tools for fighting the onslaught of COVID-19 is effective and adequate application of communication (Aliede & Ogbodo, 2023), yet this is a daunting task. However, what is health communication?

Health communication is a new, growing, popular and interdisciplinary field. It is best seen as involving and utilizing communication processes aimed at influencing and supporting individuals, communities, health care professionals, policymakers or special groups to adopt and sustain a behavioural practice or social or policy change that will ultimately improve health conditions. However, it is not easy to change lifestyles. This underscores the main challenge before health communication. “Convincing people to adopt healthy behaviours or policymakers and professionals to introduce and change practices in support of better health has never been an easy task. Childhood immunization, for example, has been one of the greatest medical and scientific successes of recent times. Because of immunization, many diseases that were once a threat to the life and well-being of children have become rare or have been eradicated in many countries worldwide. However, as for most other health-related issues and interventions, changing public and professional minds and convincing parents to immunize their healthy children against diseases that may occur has taken a worldwide multidisciplinary effort, Schiavo (2007) claims.

Despite these challenges, health communication has played a revolutionary role in improving people’s health. This stems from the fact that people change only if they have enough information about the need—the benefits of doing so and the demerits of not embracing change. Thus, health communication is all about health education, sensitization, socialisation and enlightenment that bring about behavioural and attitude changes that ultimately culminate in improved health and well-being. In this vein, Parnanta, Nelson, Parnanta and Harner (2011) cite the Department of Health and Human Services of the United States of America as defining health communication as “the study and use of communication strategies to inform and influence individual and community decisions that enhance health”. The effective, functional and strategic application of the right messages, the right quantity, at the right time, to the right people, through the right channel, in the right context, in a persuasive manner, on health issues, is what constitutes health communication; Parnanta et al. (2011) seem to be insisting on.

While observing that health communication is an aspect of development communication (DevCom), Demissie (2022, p. 46) observes that “Health communication is one of the branches of development communication. It involves the dissemination of information aimed at disease control, prevention, and health promotion (Mugira, 2007). In addition, for Zewdie et al. (2010), health communication is the art and technique of informing, influencing, and motivating individuals, institutions, and large public audiences about important health issues on the basis of sound scientific and ethical consideration”.

A look at the enormous amounts that nations expend annually on health, as contained in their budgets, would underscore the importance of health in our individual and collective lives. Health is one of the most sensitive sectors in the life of any nation. Nevertheless, the level of people’s involvement in health activities stems from increased awareness and consciousness of such programmes. In the absence of embracing health programmes, people face various health challenges that rob them of crucial resources such as time and money, while attempts at their revise lead to the dissipation of resources meant for national development. As a serious issue, health is at the centre of any country’s level of development. It is, thus, why health is wealth. In support of this, Aliede and Ogbodo (2021) affirm this when they stress the essential role of communication through mass media. “To attain the desired goal of health for the citizens anywhere, the role of the mass media is outstandingly clear. They mobilise the people through persuasive communication to actively participate in any health programme, a key determinant of the programme’s success or failure. Without such involvement, the programme can hardly succeed”.

Certain and crucial in any form of health communication, as exemplified in the crusade against COVID-19 and as aimed at the COVID-19 Protocols, is that the messages must be inviting, clear, focused and understandable. It is their persuasive and motivational nature that will attract the audience to consume them, while the attainment of the communication objectives depends entirely on the level of the message being understood. While Aliede (2005) elaborates on the need for clarity of messages, which he describes as everything, Sudhansubala and Preethi (2016) and Harrington (2014) emphasize these points while stressing that the extra mail health communicators, managers and policy makers must ensure that the scarce resources expended on health communication campaigns do not go down the drain.

### **Effect of Health Communication Management on Communication Impaired Persons**

The overall aim of any communication campaign is to make the communication messages clearly and emphatically understandable to the target audience, as it is only them that can put into action the messages passed across to them. However, what is a situation in which, despite the enormous effort made to ensure the success of the crusade, it is met with failure due to the inability of a segment of the audience to understand the messages due to some defective attribute(s) of the latter? This scenario exists, for example, in a situation where part of the audience is impaired as persons with disability, such as the blind and the deaf. Do we forget this set of people while packaging health communication messages? Conversely, what additional measures must campaigners take to guarantee that impaired people are given equal opportunities, such as others, to access the conveyed health communication messages? Undeniably, accountability for such obstructions should include cultural barriers/diversity, a

lack of clarity, biased language and information overload. Indeed, they are anything that prevents or disables communicators from delivering the right messages to the right persons at the right time or receivers to obtain the right message at the right time.

To illustrate this situation, Martic (2023) and *haiilo.com/blog* provide three broad and basic categorizations of sources of communication barriers:

1. Physical communication barriers, such as social distancing, remote work, the deskless nature of work, closed office doors, and others;
2. Emotional communication barriers resulting from emotions such as mistrust and fear; and
3. Language communication barriers refer to how a person speaks both verbally and nonverbally.

Given these barriers, effective communication and protocol management during the COVID-19 pandemic should have appropriately been mindful of members of the public suffering from impairments and therefore would not have adequate access to any communication messages pertaining to the pandemic. Not determining the fate of this class of the audience implies sectionalism in the administration of the COVID-19 Protocols. According to communication experts, impaired people cannot adequately access the preventive and curative messages packaged to address the pandemic. Apart from the physical, emotional and language communication obstructions, there are more, according to Martic's (2023) claims. First, he noted that "communication barriers can include anything that prevents or disables communicators to deliver the right message to the right person at the right time, or a receiver to get the right message at the right time". His highlights of the thirteen communication barriers organisations face today include the following:

1. Communication skills and styles
2. Social distance and physical barriers
3. Disengagement
4. Organizational structure
5. Information overload
6. Lack of Trust
7. Clarity, consistency and frequency
8. Listening
9. Wrong communication channels
10. Demographic and cultural channels
11. Wrong communication technology
12. Lack of personalization
13. Grapevine communication

Given the above disruptive barriers, people facing communication impairments would be grossly disadvantaged from the COVID-19 Protocols. Individuals with hearing and sight challenges, for example, will not find it easy to access information and communication concerning the pandemic. Unquestionably, they need specially produced communication messages, in addition to suitable delivery systems and adequate technological inputs with which to appropriately decode the protocol messages for seamless access, reception,

comprehension, assimilation and understanding. As solutions to the communication obstructive impediments, Martic (2023) recommends the following: 1. Understand the multigenerational workforce, 2. Making communication more agile; 3. Creating and sharing engaging and personalizing content; 4. Switching to mobile-first communication, 5. Using the power of data and technology, and 6. Leveraging artificial intelligence (AI).

Overall, the aim of health communication management, when effectively, functionally and diligently handled, is to ensure that health-communicated information and messages reach the right target audience at the right time. Regardless of the enormous amount of resources spent, until the envisaged public is adequately reached, the goal is not yet achieved.

### **Theoretical Framework**

To further situate, illuminate and provide further background to the study, it is anchored on the following theories and model:

#### **Behaviour Change Communication Theory**

Citing (FHL, 2002), Demissie (2022, p. 46) claims that “Behaviour change communication (BCC) is a multilevel tool for promoting and sustaining risk-reducing behaviour change in individuals and communities by distributing tailored health messages in a variety of communication channels family health international”. The theory emphasizes information, communication, enlightens, and sensitises and socializes the public on the need for transformational attitude change, especially on health grounds. Furthermore, individuals should be informed of fundamental facts and aspects, protective mechanisms and proper facilities while also advocating for behaviour changes such as those in HIV/AIDS communication. The advantages of the BCC include its ability to advance and combine several communication tools rather than providing a single communication tool to effectively reach all segments of the target society.

#### **Cross-Cultural and Socio-Cultural Context Theory**

The theory outlines numerous elements, factors and contexts that are pertinent in health communication. Some of these include demographic and geographic profiles; language; messages or slogans; and campaign duration. It thus stresses how communication is more effective when local idioms that are more culturally proximate to the audience are used. Socio-cultural and religious contexts must be applied for effective message construction. Additionally, the communicator must consider cross-cultural implications in the choice of certain symbols and colours for a particular ethnic group. One must understand the language and its connotations to communicate effectively.

#### **Elaboration likelihood model (ELM)**

The central idea of this model is that motivation and processing ability determine attitude change. Emanating from the field of advertising and ascribed to Richard E. Petty and John T. Cacioppo in 1986. According to Shimp (1999) and Belch & Belch (1995), the ELM is about the way audiences respond to messages, whether on advertisements, health or any other issue.



When people receive messages, they think about their contents and evaluate them before reacting to the claims. In this way, persuasive messages influence recipients' attitudes.

Belch and Belch (1995, p. 178-179) state, "According to the model, the attitude formation or change process depends on the amount and nature of elaboration or processing of relevant information that occurs in response to a persuasive message. High elaboration means that the receiver engages in careful consideration, thinking and evaluation of the information or arguments contained in the message. (On the other hand) low elaboration occurs when the receiver does not engage in active information processing or thinking but rather makes inferences about the position being advocated in the message on the basis of simple positive or negative cues". Thus, the ELM is strongly contingent on two main factors: motivation and the ability to process the communicated message. This model, thus, clearly and relevantly applies to this study, since to succeed, any COVID-19 message must not only be persuasive (motivational) but also understandable (processable).

### **Agenda-Setting theory**

Agenda-setting theory insists that the mass media places issues on the front burner as very important for public acceptance and engagement. It originated from Lippman (1922, p. 34), who argued that the media shapes "pictures in our head". Cohen (1963, p. 54) further reinforced the idea and fine-tuned it as follows: "the media may not always be successful in telling people what to think, but they are usually successful in telling them what to think about". McCombs and Shaw (1928) also endorsed the agenda-setting functions of the media by stating that audiences not only learn about public issues and other matters through the media but also learn how much importance to attach to issues or topics from the emphasis the mass media places on them. According to McQuail (2005), the theory is about how the media through news, current affairs and outputs focus public attention on a defined and limited set of selected issues while ignoring others.

## **RESEARCH METHODOLOGY**

This study adopted a descriptive method, in particular, in-depth personal interviews (IPIs), to generate data for analysis. In-depth interviews were used because the researchers wanted to obtain detailed information about the thoughts and behaviours of persons with communication disabilities and possibly to explore new issues that may arise in-depth. In-depth interviews were conducted with some people with impaired communication views on the various communication strategies and tactics used to communicate COVID-19 messages (Morris, 2015).

The scope of the study is states in the Southwest Region of Nigeria; these states are collocated with many demographic similarities.

### **Study population, sample and sample technique**

The population of this study comprised residents/citizens of the six Southwest states of Ondo, Ogun, Ekiti, Lagos, Osun, and Oyo who are living with some form of communication limitations or impairments. Although the combined population of the state population is

estimated to be approximately 40 million (NPC, 2006), the actual population of communicatively disabled persons is not officially known. However, with the support of the Lagos State Office for the Disability, an estimated number of relevant persons were assessed through their associations.

For these in-depth interviews, all persons with special communication needs and other forms of communication disabilities constituted the population of the study, whereas purposive and convenient sampling techniques were adopted to select seven respondents who fit into the description and characteristics of the population of study without recourse to a percentage drawn from these populations (Yamane, 1967). The purposive and convenience sampling techniques were adopted because, for in-depth interviews, these techniques align the best across nearly all qualitative research designs (statisticssolutions.com).

Purposeful sampling, as a sampling technique, is often useful in qualitative studies, such as this one, for recruiting participants who can provide in-depth and detailed information about the phenomenon under investigation, such as communication-challenged persons and strategic communication during the COVID-19 era. Similarly, convenience sampling, as a sampling technique, was used to recruit participants for ease of accessibility and convenience to the researchers. In the present case, geographic location and resources that made selected participant recruitment convenient for the researchers were considered (Odiegwu-Enwerem, 2020).

Owing to the special needs of this group of individuals, obtaining access to them was quite cumbersome, as they rarely congregated at one point at a time. Even when assistance came by way of their various associations, it also became a special case with regard to how to obtain information across relevant persons, which justified the use of purposive and convenience sampling techniques. The interview was conducted via a prepared elaborate questionnaire that the respondents found convenient to relate to and therefore provided their responses accordingly, using their preferred methods of interpretation. The generated data are thus analysed via thematic analysis to answer the research questions.

## **PRESENTATION OF RESULTS**

**Research Question One:** To what extent was the communication strategy for the COVID-19 protocol and vaccination campaigns inclusive of all classes of people in Nigeria?

The above research question was intended to explore the inclusiveness of disabled persons in framing communication messages related to COVID-19. In this regard, four related questions were posed, including the questions about whether they could still remember the COVID-19 pandemic; if you remember COVID-19, in what ways did you get to know about it? If you know about COVID-19 through the media, which of them? For the first two questions, 100% of the respondents reported that they still remembered the COVID-19 pandemic and that they obtained their information through the media. They also reported that their channel of information was mainly through 'other means', which accounted for 71%, whereas newspapers accounted for only 27%. In this context, other means include radio, television and social media, as reflected in proceeding questions.

Another important question posed to the respondents was as follows: Overall, how did you relate to all the campaign messages on COVID-19? For this question, the respondents had common ground in their responses in the following ratio: 71% said that they heard everything and understood everything that was said about COVID-19; another 29% said they read a lot and understood about the pandemic. By “hearing” and “seeing” everything, the communication messages were crafted in a way that all and sundry could understand. It also hints at the ability of the challenged persons to rise above their disabilities.

The next important question posed to them was as follows: If you heard any campaign message(s) on COVID-19, from where did you hear it/them? This question was aimed at understanding their relationship with various media channels while considering their respective special conditions. The answers revealed that 29% were through the radio, 14% were through television, and 57% were through social media. The use of social media is likely greater among deaf individuals who use British Sign Language (BSL). According to one of the participants, their mobile phones are fitted with special devices that enable them to interpret and understand messages with ease, even without physically ‘reading’ the texts.

Among the respondents, their understanding of the COVID-19 messages varied; hence, the responses were different when the following questions were posed: If you did not understand what was said about COVID-19, what is the overall impact on you?

**Table 1: Understanding about COVID-19 messages and overall impact on participants**

<b>Variables</b>	<b>Frequency</b>	<b>Percent</b>	<b>Valid Percent</b>	<b>Cumulative Percent</b>
Valid No response	4	57.1	57.1	57.1
I am not happy because I feel marginalized	2	28.6	28.6	85.7
c. I feel that government should consider some of us who have some challenges in understanding general communication	1	14.3	14.3	100.0
<b>Total</b>	<b>7</b>	<b>100.0</b>	<b>100.0</b>	

The above table shows that 29% of the respondents said they were not happy because they felt marginalized in the manner in which the messages were structured and delivered, apparently without due consideration of their situation. In the same vein, another 14% of the respondents said that they expect the government to consider some of them who have some challenges in understanding general communication. On the other hand, a large number (57%) did not respond to this question, indicating their overall feelings about the COVID-19 messages.

Considering that some respondents may not have had direct contact with the messages, the following question was also asked: If you did not have any personal exposure to the COVID-19 pandemic, what do you think was the reason? The responses to this question revealed that

43% avoided the question entirely, giving no hint as to what caused their inability to have personal contact with the messages. Twenty-nine percent could not explain the situation either; fourteen percent said they could not read because they were partially sighted, whereas another 14% said they were blind and therefore could not read at all. This suggests that much of the problem of communication was located among the ability or inability to read—that is, partial or no sighting at all. The table below explains this further.

**Table 2: Personal exposure to COVID-19 message possible reasons**

Variables	Frequency	Percent	Valid Percent	Cumulative Percent
Valid No response	3	42.9	42.9	42.9
I could not read because I am partially sighted	1	14.3	14.3	57.1
I could not read because I am blind	1	14.3	14.3	71.4
I cannot explain	2	28.6	28.6	100.0
<b>Total</b>	<b>7</b>	<b>100.0</b>	<b>100.0</b>	

Table 2 above shows that 70% of the respondents could not adequately explain why they had no personal exposure to the COVID-19 messages.

In terms of hearing ability, the respondents were asked: Did you hear about any of the campaign messages on COVID-19? The answers were uniform—100 percent affirmed that they ‘heard’ the messages. However, when asked the main source of the messages they heard, the answers varied as follows: the majority (57%) said they heard from social media, 29% said radio, and 14% said they heard from television. This suggests that hearing impairment was not as serious as reading was previously reported.

**Table 3: Hearing of campaign message(s) on COVID-19 the possible sources**

Variables	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Radio	2	28.6	28.6	28.6
Television	1	14.3	14.3	42.9
Social media	4	57.1	57.1	100.0
<b>Total</b>	<b>7</b>	<b>100.0</b>	<b>100.0</b>	

For those who could not hear the messages, even if they did not say so, this question was posed: If you did not hear any campaign message on COVID-19, what do you think was the reason? In response, they said, “I could not hear because I am deaf” (14%). A large percentage of the respondents (28% and 57%), however, either had no response or could not say. The suggestion here may be that hearing difficulty may be involved, but it is not as widespread as reading impairment among people with communication disabilities.

The research also sought to establish whether there was a difference between hearing and

understanding of the messages; hence, the following question was posed: If you saw/heard the campaign messages on COVID-19 but did not understand, what reason can you give for your lack of understanding? In this regard, two key response themes emerged from the responses: (1) “I have a known difficulty in comprehending matters due to my health condition” and (2) “I always need someone to closely explain things to me before I can understand.” In these two themed cases, the capacity to comprehend communication is described below.

**Research Question 3:** How easily or otherwise were people with communication challenges able to interpret, understand and respond to COVID-19 protocol messages and vaccine campaigns?

The overall capacity of the challenged individuals not only to be exposed to the campaigns but also to be able to interpret, understand and respond to the content is a demonstration of the inclusiveness of the communication designs. This suggests that this category of persons was considered during the design of the communication strategies for the COVID-19 campaigns. On the other hand, the inability of some or all of the challenged persons to interpret, understand and respond to the content may suggest that the communication efforts were specifically targeted at the sound individuals in the society, exclusive of the challenged persons. In this context, the above question was posed to the respondents to elicit their responses, as presented in the table below.

**Table 4: If you saw/heard the campaign messages on COVID-19, but did not understand, what reason can you give for your lack of understanding?**

Variables	Frequency	Percent	Valid Percent	Cumulative Percent
Valid No response	5	71.4	71.4	71.4
I have a known difficulty in comprehending matters due to my health condition	1	14.3	14.3	85.7
I always someone to closely explain things to me before I can understand	1	14.3	14.3	100.0
<b>Total</b>	<b>7</b>	<b>100.0</b>	<b>100.0</b>	

Table 4 shows that 28% of the respondents had difficulty understanding COVID-19 campaign messages for various reasons. One of the reasons given by the respondents is their health conditions (14.3%); this same condition leads them to seek help from people for interpretation and eventual understanding of messages. This suggests that an awkward process of decoding/receiving and interpreting messages always ensues among some categories of communication-challenged persons, thus calling attention to the need to make communication designs more inclusive and considerable of everyone, including challenged

persons.

The study also sought to determine the key types of disabilities among the respondents and reported that blindness was implicated (29%) as well as physical challenges (43%). However, 28% did not respond to the questionnaire.

**Table 5: Nature of respondents' disability/challenge**

Variables		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No response	2	28.6	28.6	28.6
	Physically challenged	3	42.9	42.9	71.4
	Blindness	2	28.6	28.6	100.0
	<b>Total</b>	<b>7</b>	<b>100.0</b>	<b>100.0</b>	

Table 5 shows the nature of the disability of the respondents, including physical challenges (43%) and blindness (29%), with 29% having no response.

**Research Question 4:** What other possible ways could COVID-19 and vaccination messages be made more inclusive for persons with communication challenges?

In anticipation of the various challenges to be expressed by the challenged persons regarding their access to information, the research requested knowing what they would recommend to make access to them easier and receiving some responses accordingly. The following question was asked: What do you think should have been done to improve your access to information on COVID-19? The answers received are as follows:

1. There is a need for intensive advocacy (before, during and after every such campaign);
2. Give me more accessibility (this theme was not expressive, but one would think in terms of interpreters and other special efforts to enable them understand better);
3. Through Android phones (a mobile operating system based on a modified version of the Linux kernel and other open-source software, designed primarily for touchscreen mobile devices such as smartphones and tablets).
4. Do not rely on campaign – (similar to the number one above – intensive advocacy) and
5. Materials for COVID-19 should be accessible.

These findings indicate that the manner in which communication was conducted during the COVID-19 pandemic was not very inclusive of the communication-challenged individuals; hence, they suggest fairer ways of reaching them in future situations. Find below the table.

**Table 6: What should have been done to improve your access to information on COVID-19?**

Variables	Frequency	Percent	Valid Percent	Cumulative Percent
Valid No response	2	28.6	28.6	28.6
d Advocacy	1	14.3	14.3	42.9
Give me more accessibility	1	14.3	14.3	57.1
Through Android phone	1	14.3	14.3	71.4
Do not relent on campaign	1	14.3	14.3	85.7
Material on Covid-19 should be in accessible forma	1	14.3	14.3	100.0
<b>Total</b>	<b>7</b>	<b>100.0</b>	<b>100.0</b>	

Table 6 shows the respondents' idea of how best to access information on COVID-19, including advocacy, increased accessibility, access to android phones, and increased access to COVID-19 materials, among others. Approximately 29%, however, gave no response.

Similarly, and in specific terms, the respondents also stated how they would have wanted the communication to be delivered to make more impact. This is sequel to the following question: Briefly, state the way you would have wanted the communication on COVID-19 to be prepared? The responses were as follows: radio,14.3%; braille, 14.3%; Facebook and text messages,14.3%; putting more effort into social media and radio,14.3%; and communication to be made in an accessible manner (although not clarified),14.3%.

## DISCUSSION OF FINDINGS

This study aimed to examine whether communication related to COVID-19 campaign messages was performed to ensure that everyone was included in the proper understanding and interpretation of messages. To achieve this goal, several key questions were framed, including the following: whether the communication strategy for the COVID-19 protocol and vaccination campaigns included all classes of people in Nigeria; how easily or otherwise, communication challenges were able to interpret, understand and respond to COVID-19 protocol messages and vaccine campaigns; and what other possible ways could COVID-19 and vaccination messages be made more inclusive for persons with communication challenges?

Some distinct findings have been obtained from this study, which set out to explore how inclusive the communication strategies of COVID-19 were designed by the responsible organs. The findings include the fact that some members of the public who are challenged in their communication ability cannot easily relate to or interpret communication messages on their own without the assistance of other persons. This finding agrees with what is generally known, as persons with disabilities, under normal conditions, face discrimination and exclusion from services and decision-making. With the spread of the coronavirus disease 2019 (COVID-19) pandemic around the world and information on how to take care of oneself on various platforms, people with disabilities increasingly face more barriers to accessing

information and services, as they are often overlooked in emergency response situations. This has been empirically proven in this study. According to [botswana.unfpa.org](http://botswana.unfpa.org) (2020), being blind or partially sighted is already a challenge; however, the COVID-19 pandemic worsened this situation. Most COVID-19 messages are shared through TV, radio, posters and social media, and people forget that there are other groups who access messages in a special way, such as people who do not have access to social media.

Some of the immediate challenges associated with discrimination against blind or partially sighted persons are echoed by a blind person in Botswana: “I must also emphasize that as the blind community, it is quite a challenge for us to adhere to some of the measures put in place such as social distancing and not touching surfaces because we use a sense of touch to navigate our environment, and 60% of our functioning has to be done with someone who is sighted.” The ultimate fallout of this is that compliance with rules and regulations guiding COVID-19 protocols and other related pandemics will be breached unintentionally by this class of persons.

To mitigate this challenge, some countries, such as Botswana, have ensured that information about COVID-19, infection control efforts and public health measures is accessible to all people, including people with disabilities. Consequently, the UNFPA Botswana supported the Botswana Association of the Blind and Partially Sighted (BABPS) to develop and distribute braille booklets among people with visual impairments. The braille booklet included messages on prevention and control measures from credible sources such as the government, the World Health Organization and the Ministry of Health and Wellness (Rabasimane, 2020).

In the present study, it was found that the blind and partially sighted individuals appeared to constitute the majority of those negatively affected by the noninclusiveness of the communication initiatives by the government and its agents. This study revealed that visually impaired persons used social media to access information during the COVID-19 era, which resonates with a similar study by Gkatzola and Konstantinos (2023), who also reported that Facebook was mostly used by individuals with visual impairment. Through a literature search of EBSCOhost, ERIC, Scopus and ResearchGate and the search engine Google Scholar, the researchers reviewed 13 studies published from 2011--2022, confirming several other similar studies that had found Facebook to be very popular among users of social media. In the present study, in terms of hearing the COVID-19 messages, the majority (57%) reported that they accessed the COVID-19 information from social media; 29% said radio, while 14% said they heard from television, suggesting that social media came to the aid of visually impaired persons during the COVID-19 era.

This popularity of social media among visually impaired persons was echoed by one of the interviewees, who revealed that through the use of screen readers and internet access, the visually impaired were able to use many of the same social media sites that the sighted enjoyed—not only to keep in touch with friends and family but also to create awareness and receive information, especially on important matters such as the COVID-19 epidemic.

Persons with special needs—that is, those with impaired communication—have some expectations from the government and its agents to enable them to relate with the messages and respond appropriately. The findings from this study show that persons with



communication disabilities hope and expect the respective agencies to engage more in advocacy, make information to them more accessible, explore more the use of android devises and never rely on including them in their communication architecture. Overall, they suggest that material on COVID-19 or any pandemic should be accessible to this category of people. In addition, the findings indicate that there is a need for interpreters to assist impaired hearers in accessing information in an understandable manner, especially among friends who understand their peculiar situations.

In terms of media formats to facilitate information absorption, the study revealed that the braille system was considered a good initiative for assisting partially sighted individuals in accessing information related to COVID-19. Moreover, the popular view among the interviewees was that their access to COVID-19 information was through Facebook and text messages; these were strongly advised as a means to reach more of them during such periods of the pandemic.

Demographically, the study revealed that a major percentage (86%) of the sampled population were in the age bracket of 28–47 years. This is a major problem considered against the background of the UN's projection that over 5% of the world's population—or 430 million people—require rehabilitation to address disabling hearing loss (including 34 million children). It is estimated that by 2050, over 700 million people—or 1 in every 10 people—will have disabling hearing loss (who.int). The world body further warns that unaddressed hearing loss poses an annual global cost of US\$ 980 billion—including health sector costs but (excluding the cost of hearing devices), costs of educational support, loss of productivity and societal costs. Among these costs, 57% are attributed to low- and middle-income countries. The UN advises that prevention of hearing loss is essential and occurs throughout the life cycle of individuals, from the prenatal and perinatal periods to older ages. In addition, in children, nearly 60% of hearing loss is due to avoidable causes largely preventable by implementing public health measures, such as immunization, good maternal and childcare practices and genetic counselling.

The study also revealed that a large percentage (57%) had between O' Level and OND/NCE certificates; 29% had MSc, whereas 14% had BSc. This finding is consistent with well-documented evidence that hearing loss increases the risk of language delay and, in turn, the risk of academic difficulties and outcomes in primary and secondary schools (Hendar & O'Neill, 2016; Lederberg, Schick, & Spencer, 2013; Punch & Hyde, 2010; Thoutenhoofd, 2006; Traxler, 2000).

The generated data are substantially in synch with the objectives of the study, as they also answer the research questions. Additionally, the reviewed literature further provided insights into the theme of the study. Correspondingly, the applied theoretical bases and model equally offered additional elucidation of the subject. For example, while behaviour change communication (BCC) provides messages that lead to behavioural change among people and is thus very germane as a tool of health communication, cross-cultural and sociocultural context theory has proven to be suitable for selecting the critical elements vital in packaging health communication. However, the elaboration likelihood model (ELM) stresses the crucial role of motivation and processing ability in affecting attitude change, whereas agenda-setting theory claims that the mass media, through news selection, placement and framing, indicates

issues of public importance. Indeed, they emphasised the importance and urgency of addressing COVID-19 through the application of relevant preventive and curative measures.

### **Conclusion and recommendations**

On the basis of the findings and discussions around this work, the study, therefore, concludes as follows:

The communication strategies for the COVID-19 protocol and vaccination campaigns were not inclusive of all classes of people in Nigeria; specifically, deaf and blind people were not considered when framers of the communication strategy put down their document. The implication is that this class of citizens found it difficult to follow the instructions and the required responses regarding the COVID-19 protocols and vaccination campaigns. Consequently, the study also concludes that there was no deliberate effort on the part of the government or its agents to target their communication messages to carry along those with communication challenges, such as hearing or reading impairment. This situation, therefore, has affected the ability of people with communication challenges to interpret, understand and respond to COVID-19 protocol messages and vaccine campaigns. The study, however, concludes that a percentage of the communication disabled persons, however, found their ways around the messages and responded accordingly; this should not be construed to mean that communication was deliberately designed to include them. The study further concludes that communication-disabled persons also have much to contribute to designing communication that focuses on them; hence, any communication that expects a national response should be made to be inclusive in targeting and messaging.

Arising from the foregoing discussion and conclusion, the study is as follows:

1. Important strategic documents of this nature, which require national inclusion and collective response, should be intentional in their framing and design to ensure that all important segments of society, including the disabled, are adequately included in architecture. This is also with respect to communication strategies for COVID-19 or any epidemic protocol and vaccination campaigns.
2. The study also recommends that communication design should consider persons with communication challenges, such as those who are deaf, blind and partially sighted, to make deliberate provisions for their access to and proper interpretation of messages.
3. Similarly, such communication should be made easily accessible to persons with communication challenges to enable them to interpret, understand and respond to COVID-19 protocol messages, vaccine campaigns or other future national pandemic cases.
4. The government or its agents, such as the Ministry of Health and Centre for Disease Control, should engage with disabled persons for their views about how best to communicate with them during such emergencies to achieve optimum results.
5. In a similar situation in the future, there will be a need for authorities to engage the services of health communication experts to support agencies in designing an all-inclusive strategic response to health challenges to achieve an inclusive response and behaviour changes, as envisaged.

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