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INDIGENOUS LANGUAGE EFFECTIVENESS IN COMMUNICATING NIGERIAN GOVERNMENT'S COVID-19 PALLIATIVE PROGRAMME

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Abstract

The COVID-19 pandemic highlighted the critical role of effective communication in disseminating government's palliative programmes to Nigeria's vulnerable communities. This study investigates the effectiveness of indigenous languages in communicating COVID-19 palliative policies. Using a mixed-methods approach combining surveys (N=312) and in-depth interviews (N=20), the research evaluated comprehension levels, policy acceptance, and communication effectiveness across different language groups and channels. Results showed significantly higher comprehension scores for indigenous language communications (M=4.12, SD=0.76), compared to English-only communications (M=3.41, SD=0.92), with radio emerging as the most effective channel (62.3% reach). The study found that indigenous language use enhanced policy understanding and trust among rural populations. However, challenges, including inadequate media infrastructure, limited language coverage, and difficulties in maintaining consistent updates across multiple languages hindered effective communication. These findings underscore the importance of integrating Indigenous languages in crisis communication strategies, suggesting that policymakers in multilingual societies should prioritise cultural and linguistic considerations in public health communication planning while addressing infrastructural and resource constraints.

Keywords: Indigenous language communication, COVID-19, policy implementation, public health, crisis communication

The significance of language, especially Indigenous or minority languages, in shaping sociocultural consciousness, including how a society responds to public health emergencies, represents an important area of inquiry, especially given its long-standing implications for culturally-tailored public health communication that espouses social equity, ensures democratised involvement, and improves positive health outcomes (United Nations Department of Economic and Social Affairs & Requesens-Galnares, 2023; Whalen et al., 2022). In mentioning cultural relevance and democratised participation, there is the inference that social systems and inequality dynamics complicate interventions within public health communication, especially during crises (Häfliger et al., 2023). Ultimately, these complexities largely influence the choice of communication initiatives, including the use of language, and that the choice of English as a public communication language might be symptomatic of these inequality dynamics.

Addressing this inequality is imperative, given language's significance to public health communication due to its emotive influence on attitudes, actions, and responses (Obiorah, 2021). The language question informs Fadipe and Salawu's (2021) conviction that the communication strategy used during public emergencies is just as important as the information itself, particularly in providing accurate and timely information that could be the difference between life and death. This is contextually significant, which means that for sustainable outcomes of public health communication interventions, language must (and does) resonate with community-centred interventions. This might challenge English's role in public health communication through a re-centring of indigenous languages – especially in linguistically diverse contexts like Nigeria. – This purposeful repositioning of languages is akin to what Ngũgĩ wa Thiong'o described as 'decolonisation' (Rani, 2022; also see Sahani et al., 2024), or linguistic self-determination, if one considers Skutnabb-Kangas' (2012) social justice ramifications of entrenching indigenous languages. There is some evidence of the effectiveness of this strategy; in Haiti, for example, during the 2010 earthquake, where rescue and recovery interventions involved community engagement in Creole (Powell & Pagliara-Miller, 2012), and more recently, with response efforts to mitigate the effects of the COVID-19 pandemic globally.

Since it broke in late 2019, the COVID-19 pandemic has had a major and negative impact on social structures, health systems, and economies throughout the globe, Nigeria inclusive (Oyeleye & Ademosu, 2023; WHO, 2020).750 million reported cases, over 7 million deaths and multiple waves after, the long-term effects of the pandemic are still unfolding, with indigenous and/rural populations amongst the worst-hit and still recovering (Bastani et al., 2024; Du et al., 2024; Devine, 2022). However, COVID-19 also provided invaluable opportunities for key lessons to be learnt on approaches and barriers to proactive response to public health emergencies. Also, the pandemic highlighted the importance of culturally resonant, community-centred communication interventions, in this case, contextualising campaigns within linguistic cultural vehicles for increased effectiveness. For example, studies found that the COVID-19 intervention within the Māori culture in New Zealand ensured that Indigenous populations experienced improved campaign penetration and effectiveness (Devine, 2022; Cassim & Keelan, 2022). Kuhn et al., (2020) found that American Indian and Alaska Native (AIAN) tribal governments and organisations in the United States utilised social media to repost public health information from the CDC that was repurposed to culturally congruency, which was significant for self-efficacy in following instructions around social distancing, hand hygiene, use of face mask, etc. Conversely, Cavero (2021) suggests that the Peru example speaks to how most countries approached the practice, with only superficial

attempts (translating fliers or media content to local languages only) to integrate local populations into intervention efforts.

According to Obiorah (2021), Nigeria has unique communication issues due to its characteristics of over 200 million people and over 500 Indigenous languages, with the three most used being Igbo, Yoruba, and Hausa. These three languages have a dominant geographical distribution and speaker count. However, since English is the official language, the government often communicates in it (Ihekweazu et al., 2022). Thus, Nigerians, who depend heavily on their indigenous languages for everyday information and communication, confront significant hurdles due to their linguistic repertoires. The implication of this was the necessity that the COVID-19 crisis placed on disseminating critical health and policy information in indigenous languages (Ogunniyi et al., 2023).

Statement of problem

The government's palliative programmes during and after the COVID-19 pandemic represent a significant issue of public concern, requiring communication efforts that must reach a substantial number of the general population. Ekwunife et al., (2021) report that in response to the socio-economic hardships caused by economic downturns occasioned by the lockdowns enforced to arrest the spread of COVID-19, the government announced several financial and non-financial interventions aimed at improving the falling standards of living and reducing the rising costs of living, which spurred inflation and brought the economy to a recession. These interventions included the government distribution of food, aid packages and other supplies to citizens, providing cash grants and low-interest loans for entrepreneurs and businesses, amongst others (Adamu et al., 2021).

The utilisation of indigenous languages in public health communication carries with it strategic merit (Owolabi & Nurudeen, 2020); however, its efficacy is impeded by several challenges, chief amongst which is Nigeria's considerable linguistic diversity. According to Ugwuagbu and Chinedu (2024), this linguistic diversity poses the most patent challenge on how public health emergencies can be communicated to the public. This language question presents the dilemma of choosing between what Jega (2020) describes as an all-situation communication plan that homogenises the channels of communication using 'lingua franca' as a means of bypassing the complexity of developing and executing linguistically bespoken communication, which ensures speed in delivery of crisis communication content. Beckett and McPherson (2005) suggest, however, that this goes beyond the justification of convenience to expose a deeper problem, which is the lingering colonial influence exemplified by linguistic imperialism, which confers a perception of modernity and legitimacy on 'lingua franca' that are not culturally resonant. On the other hand of this dilemma is the imperative of recognising the inherent linguistic variability within a given context, especially Nigeria's, as message comprehension and interpretation are influenced by the cultural history of each language group.

This situation is not limited to Nigeria, as there are several international examples of governments and organisations contending with this choice between all-purpose vs. bespoken linguistic options in public health campaigns (see Devine, 2022; Kuhn et al., 2020, etc.) Nigeria's experience with the dialectic tensions ensuing from playing the balancing act between generic or region-specific language is reflected in public health communication. For instance, various languages maintain dominance in specific regions across the country, notwithstanding the widespread usage of Yoruba, Igbo, and Hausa (Jega, 2020). Ogwezzy-Ndisika (2022), in

writing about African communication systems, emphasises the effectiveness of indigenous languages – despite the rise of emerging technologies – and folk media in disseminating information meaningfully amongst rural target audiences that are disenfranchised from modern media. This is significant, as Diko (2023) reports that, while literacy rates vary widely by location, most rural Nigerians cannot read or write. This orality means that indigenous communication enhances any successful communication approach (Onyenweaku, 2022; Akpan, 2023). Akpan (2023) adds that oral tales, community announcements, and radio broadcasts best suits illiterate audiences, with message quality and frequency determining these methods' efficacy. These examples align with the linguistic determinism position of scholars like Skutnabb-Kangas' (2012), who contend that different populations have a fundamental human right to communicate in and be communicated with in the language that resonates with their ontology.

This study recognises the correlations between the use of indigenous languages and effectiveness of public health campaigns, especially within the context of COVID-19, both globally, and in Nigeria. However, there is yet an under-explored opportunity on the intrinsic factors that underpin these correlations. For instance, it is crucial to clarify the role of trust in government in message acceptance, and how the use of indigenous languages moderates this trust construct. Ihekweazu et al., (2022) report that many Nigerian communities distrust the government and official channels. Trust may have been eroded by corruption, incompetence, and unfulfilled promises (Ochu et al., 2021). This means that even well-designed communication in languages indigenous to the audience may be questioned if the authorship is doubtful. This study addresses this hiatus.

Similarly, most studies do not investigate the relationship between language use and message comprehension, and how this intersects with trust and message acceptance. This takes on increased significance when one considers data from the National Bureau of Statistics (2022) that reflects that the main target of these interventions is the over 60% of Nigerians experiencing multidimensional poverty, many of whom are rural area and urban slum dwellers, and largely illiterate. This underscores the importance of determining message comprehension, especially because most campaigns targeting them use oral, informal, and local communication channels (Onyenweaku, 2022; Akpan, 2023).

By focusing on these gaps, this study contributes to the literature by first providing data on the extent to which language contributes to health equality in health crisis management in multilingual societies. Secondly, it advances conversations on linguistic self-determination within health communication, establishing a viable link between culture and health. In applying a mixed method approach, the study takes a step further to determine the relationship between language use and success of public health communication campaigns, which provides richer insights into the intricate sociocultural influences on communication campaigns' effectiveness, especially during crises situations. Lastly, the findings in this study guide the development or review of new or existing policy frameworks that shape governments' and other stakeholders' public health communication strategies, especially those targeting minority groups and optimisation of such campaigns' outcomes.

These concerns and contributions justify this study designed to determine the extent to which indigenous languages were used in communicating the Nigerian government's COVID-19 palliative interventions and the effectiveness of this approach in influencing citizens' participation.

Literature Review

Deconstructing Indigenous Language in Public Communication

Studies suggest that language choice and usage have an impact on how the public understands, interprets, and responds to information, including how messages impact emotions, audiences' perceptions of the quality of the communication, as well as acceptance and usage of the communication (Sengupta, 2024; Matanda et al., 2023; Seale et al., 2022). More so, language provides a contextualisation of communication within cultural parameters, which extends the implications of language from just being a means of communication (as most who have tried to define the concept have averred (cf. Sirbu, 2015) to being a form of communication and an expression of culture that helps in the transmission of meanings in a society (Kemertelidze & Kacharava, 2015). This transmission of meanings often occurs at different levels (interpersonal, group, mass) within a society and has implications on the cultural framework of the society, even though, at first, the systems that confer meaning are defined by the extant cultural framework (Hamid et al., 2023; Ogwezzy, 2022). For instance, Kuhn et al., (2020) observe that communication is simplified when the language is congruent with the local culture.

This brings into context the position expressed in Anderson and Malone's (2013) treatise title: 'All culture is local', given the rise in multiculturalism as occasioned by globalisation and the politics of colonialism and neo-colonialism. In reality, Akintunde and Ohiare-Udebu (2021) aver that the evolution of language and culture as interdependent concepts has always occurred within a 'local' setting. This matrix suggests that despite contemporary experience with 'global culture', culture and language as a form and expression of it, are inherently indigenous, situated within specific locations (communities, geopolitical regions, etc.), and serving as their means of communication. Gilmore et al., (2019) concur with the location of culture, positing that it is typically local, despite significant external influences. Ogwezzy (2022) corroborates the point on the localisation of cultural systems, including language, stressing that local (traditional) communication (and the systems that facilitate it) – in this case, in African societies – have served (and still serve) local communities well in the transmission of information. This is despite the neglect of these systems for foreign ones, because of modernisation, urbanisation, and other related dynamics.

The Nigerian government's use of Indigenous languages to promote the COVID-19 palliative programme illustrates health communication challenges in a multilingual community. The NCDC (2021) states that the government employed many media outlets (incorporating African traditional, conventional, and new social media) to disseminate vital food, financial and other palliative support, as well as health awareness and prevention information during the epidemic. Evidence suggests that these platforms have their strong points, with radio the most effective in rural regions due to its reach among rural populations. More so, when the information is relayed in local languages (Maledo & Ativie, 2022), there is bound to be. African traditional media, such as town criers and local assemblies, were found to have complemented radio, in ensuring that populations not served by conventional and new media were not disenfranchised from accurate health information during the period (Onyenweaku, 2022).

A core position of this study is, however, challenged in the findings of Adeyeye and Salawu (2024) who investigated the role of indigenous languages in effectively creating awareness of COVID-19 and promoting safe practices. Setting their study in Ondo State, Nigeria, they found that there was poor reception of health promotion messaging around

COVID-19 amongst residents of Ondo State, Nigeria, compared to receptibility of messages in English, for which they recommended a 'demystification' of indigenous languages as a channel for public health communication campaigns. This might align with the argument around the politics of language, and the perception of English (as the 'official' language) carrying more authenticity than traditional, indigenous languages as a means of transmitting public health information messaging.

A summary derived from these positions is that language is inherently local and, therefore, indigenous. This has massive implications for its role in communication, especially on issues of public concern. Resounding Kuhn et al., (2020), Maledo and Ativie (2022) share the view that using language (and lingual constructs such as idioms and proverbs) indigenous to an audience has positive benefits including message retention and adoption, which are key when public communication is for a health emergency, such as COVID-19.

Benefits of Indigenous language usage in public health emergency communication: COVID-19 in Nigeria

Numerous studies propose providing public health emergency information in indigenous languages due to the significant benefits, especially for stakeholder engagement and mass social mobilisation (see Uekusa & Matthewman, 2023; Ortega et al., 2022). International studies, including Piller et al., (2020), also advocate using language and other culture-appropriate communication methods in health emergencies, as target audiences are more likely to follow recommended health behaviours since these methods improve information comprehension and cultural resonance. For instance, according to Eleshin (2023), indigenous languages increased understanding and health adherence during Nigeria's Ebola epidemic. Also, Fadipe and Salawu (2021) found that there was a positive relationship between the use of Indigenous languages for health communication during the COVID-19 and the usage of said information by the audiences, connected to usage of Indigenous languages on dissemination of information – usually received via digital channels – conferred credibility and boosted its believability.

Similarly, Seale et al., (2022) found that communicating in indigenous languages during the pandemic reduced misinformation and increased community engagement under the siege of COVID-19 in Nigeria. This explains why Nigerian health programmes used community leaders and radio broadcasts to provide information in indigenous languages during the COVID-19 outbreak. This corroborates the position of Flood and Rohloff (2018), on the use of Indigenous languages for health emergency communication. In their study, such broadcasts in the local idiom exerted an impactful intervention, given how important language is to the transference of meaning and the role it plays in audiences' socio-cultural frameworks. This takes on added significance when such communications aim to achieve behavioural or lifestyle changes, as in the case of the COVID-19. The United Nations Educational, Scientific and Cultural Organisation (UNESCO) (2020) reiterates this point, adding that where there is an imperative to share information that can save lives, especially during emergencies, public message is best transmitted in languages indigenous to the targeted audiences.

Heinrichs et al., (2022) demonstrates that this method worked in rural areas with poor literacy and low digital media penetration, succeeding to reach more people because the communication channels used were deemed more trustworthy and inclusive. More so, Obiorah's (2021) suggestion that health communicators might improve public health outcomes by using Indigenous languages during crises is connected to the findings that show that this approach aids understanding, cultural sensitivity, and emotional involvement. For example, some findings show that effectiveness in communication is enhanced when done in the

recipients' indigenous language, as this may improve understanding and memory, as well as boosting emotional reactions (Eleshin, 2023; Seale et al., 2022). A deeper flow of information between the audience and the advertised item boosts the effect of health promotions.

Challenges of using Indigenous Languages in Health Communication

However, there are some concerns with using indigenous language for public health communication, despite the many benefits. First is the challenge of navigating the multilingual configuration of Nigeria, where over 500 distinct languages exist and are spoken. Onyenweaku (2022) and Umoja et al., (2021) posit that Nigeria's multilingual set up, coupled with the politics of major versus minority ethnic groups/languages (for context, Nigeria has three major ethnic groups/languages – Hausa, Igbo, and Yoruba – with the other languages considered 'minorities') contribute towards making indigenous health communication difficult, unwieldy and expensive. Programme implementors aiming to achieve inclusion must design campaigns featuring several languages.

There is also the challenge posed by Nigeria's low levels of literacy in certain regions, with the *Punch Newspapers* (2023) reporting that literacy levels were as low as 7.3% in some states. This reinforces the need for indigenous-languages-based public health communication campaigns, which use oral communication, community media and even radio (Diko, 2023), especially to those targeting rural areas. According to Obiorah (2021), these low literacy rates are most common in rural areas. However, given the sizeable population that such interventions would have to cater for across the country, especially for a pan-national public health emergency like COVID-19, the high execution costs resurfaces, especially of translation and re-distribution (Heinrichs et al., 2022). Allied to this is the concern with message consistency and accuracy due to the possibility of information being lost or altered during translation and transmission across several channels. Heinrichs et al. (2022) found that translating can introduce errors and a time lag into communication content and campaigns which impairs efficiency in public health promotion, especially in a crisis period.

The lack of media infrastructure makes using vernacular languages harder. Urban areas have greater radio, TV, and internet access than rural ones (Jega, 2020). This presents a challenge in terms of the need for varied media outlets to reach multiple demographic groups with public health campaigns, especially mass-mediated ones, in rural areas. Akinyemi and Isiugo-Abanihe (2020) found that media infrastructure accessibility and quality may affect health communication campaigns.

The credibility of the information source is also important. There is a significant level of distrust in the government and formal channels, for a number of reasons such as corruption, government disinformation, and outright neglect etc. (Alabi et al., 2024; Sogbesan, et al., 2024; Evans et al., 2024), which has negative implications for public health communication. For instance, Ihekweazu et al., (2022) found that mistrust resulted in low believability of government's COVID-19 prevention campaigns, and dampened government's fight against the infodemic that was rife during the period. Use of indigenous languages, and communal structures and systems were key in addressing the lack of trust that accompanied COVID-19 awareness and prevention campaigns to a considerable extent in some rural communities in South-Eastern Nigeria (Ude-Akpeh et al., 2020). This aligns with Diko's (2023) recommendation on the coopting of respected community leaders for communication interventions, which could help boost credibility and foster compliance with health requirements.

Cultural and contextual aspects must be considered alongside infrastructural and logistical issues. According to de Pedro Ricoy (2023), effective health messaging must be

culturally relevant and localised, especially as resonance with the information is enhanced, which portends positively for adoption.

In sum, there are challenges associated with using indigenous languages in health communication, despite its many benefits. To address these issues, a comprehensive and adaptive communication plan that considers languages spoken, literacy levels, media accessibility, and cultural heritage is needed. This holistic approach improves the chances that the campaign overcomes these challenges and ensures that vital health information reaches all community members, which is crucial for achieving public health intervention objectives (Seale et al., 2023).

Research hypotheses

Drawing from the synthesis of literature, the objective of the study was designed to test the following assumptions:

- ***H1***: Indigenous language communication leads to higher comprehension levels than English-only communication
- ***H2***: Trust in government messages is higher when communicated in indigenous languages
- ***H3:*** Policy acceptance rates are significantly higher among populations reached through indigenous language communication
- ***H4:*** The effectiveness of indigenous language communication varies significantly by channel type

Research methodology

Research design

This study combined quantitative and qualitative research methods to address its research objectives. According to Creswell and Plano Clark (2017), mixed methods combines the statistical strength of quantitative research with the contextual insights provided by qualitative research. The study used a mixed-methods approach in which the findings were integrated after simultaneous collection and analysis of quantitative and qualitative data. For the quantitative component, the study used a cross-sectional survey to collect self-report information about respondents' perceptions of the government's COVID-19 policies and activities, including distribution of palliatives, and the participants' views on the use of Indigenous languages in communicating the programme. In tandem, the qualitative element involved in-depth interviews, exploring themes around quality of public communication of COVID-19 using indigenous languages, and perceptions of trust in this modality of communication. Some methods highlight the effectiveness of specific communication strategies, human experiences, and complicated situations. This mixed-methods approach is appropriate for this study as triangulation using both techniques and this ensures this study has increased validity, as Tashakkori and Teddlie (2003) recommend.

Data collection

Sampling methods: Participants for the survey were selected from Lagos State using a cluster sampling method, delineating the entire study location into clusters, based on rural-urban distribution. Local government areas (LGAs) were used as the first-level clusters, and based on identification of urban and rural areas in the state (Oyeyemi et al., 2015), three (3) LGAs were

randomly selected, one (Shomolu) to represent urban areas, and two (Ikorodu and Ibeju-Lekki) to represent rural areas. Subsequently, respondents were selected from these locations using a combination of convenience, purposive, and snowballing techniques; however, they had to have benefited from or witnessed a government intervention in the times of the COVID-19 pandemic. The sample size was determined to be 300, using the Taro Yamane model for sample size selection, which was then adjusted to a size deemed manageable yet meeting the requirements of academic rigour. The final sampling technique may have introduced some level of bias into the method and findings; however, there was a fair distribution of different demographics in the final sample. The research instrument was availed through both anonymised distribution and in-person interviews. The sample comprised men and women aged at least eighteen. Regarding jobs and schooling, their backgrounds varied, which is a fair representation of the population of the study location.

Interview protocols: For the qualitative component, semi-structured interviews with a deliberately chosen sample of twenty (20) participants was used. The sample was selected purposively, targeting members of the public who personally experienced the effects of the government's palliative interventions programmes, media representatives, health promotion professionals who were involved in COVID-19 intervention programmes, and community leaders. The interview participants were selected based on their experience in sharing and receiving of health information during the COVID-19 epidemic. The interview technique consisted of open-ended questions on their experiences, opinions, and ideas regarding the use of indigenous languages in health communication. To ensure their comfort and the integrity of their answers, interviews were conducted in the languages selected by the participants. With consent to participate and record their participation secured from each participant, all interviews were audio recorded to guarantee accurate transcription and analysis. The interviews lasted between 25 – 40 minutes.

Data analysis

Both descriptive and inferential statistics were used to analyse the quantitative data. Descriptive statistics measures include means and standard deviations that depict participants' demographic information, while inferential statistics – ANOVA and the chi-square tests – computed using SPSS - were used to test relationships between variables such as how language influences one's capacity to understand and trust health information.

Assessment of qualitative data gathered through the interviews was done via iterative thematic analysis. This method, according to Braun and Clarke (2006), identifies recurring themes and patterns. This allowed for the thorough investigation of the cultural and environmental factors that influence the reception and interpretation of health messages. After full interview transcription, the transcripts were coded using NVivo, with a focus on identifying significant themes, sub-themes, and patterns connected to the participants' experiences and points of view. Identified themes were then analysed and reported to provide context to the hypotheses' tests outcomes.

Ethical considerations

Ethical considerations to ensure participants' rights, wellbeing and general protection from harm, were adhered to in this study. Participants were duly informed of the aim of the study, the risks of participation; as well as their right not to participate in the study, or withdraw from the study at any point should they desire. Thus, informed consent was secured before participants were recruited into the study. The research tool also provided them another

opportunity to indicate their intent to participate formally in writing. Confidentiality and anonymity of participants and their responses were also ensured, with identifying information removed from the data. Data encryption was done to safeguard participants' information. De-identified data and recordings were only used for this study.

Results

Demographic profile of respondents

The survey included 312 participants: the sample included 154 females (49.4%) and 158 men (50.6%) aged 18–65 (M = 35.2, SD = 11.8). Rural (41.7%) and urban (58.3%) Nigerians responded. The respondents spoke Hausa (30.1%), Igbo (28.2%), Yoruba (25.6%), and other indigenous languages (16.1%). This distribution might have been because of the sampling approach used, as Lagos State is predominantly Yoruba. Table 1 shows the survey respondents' demographics.

Reach and comprehension of palliative policy communication

The research assessed the reach and comprehension of indigenous language use in communicating government palliative programme during COVID-19. Most participants (78.2%) learnt about policies in their original languages via radio (62.3%), community gatherings (48.1%), and TV (35.6%). Table 2 shows respondents' media exposure to policy communication.

Respondents were asked to rate their understanding of the policies communicated in their Indigenous languages on a 5-point Likert scale (1 = very low, 5 = very high). The mean comprehension score was 3.92 (SD = 0.84), indicating a high level of understanding. Table 3 presents a distribution of comprehension scores across different languages.

A one-way ANOVA shows significant differences in comprehension scores across languages, $F(3, 308) = 6.21$, $p < .001$. Post-hoc comparisons using Tukey's HSD test indicates that comprehension was significantly higher among Hausa speakers (M = 4.15, SD = 0.76) compared to Igbo (M = 3.81, SD = 0.86) and Yoruba speakers (M = 3.75, SD = 0.82).

Impact on policy acceptance and trust

The survey also examined how indigenous language communication affects respondents' palliative care utilisation and information confidence. 72.4% of respondents used government assistance courtesy of their Indigenous languages. Table 4 shows category-based policy adoption.

Chi-square tests established substantial correlations between language and food distribution, health treatment, and financial aid ($\chi^2(3) = 9.56$, $p < .05$, 8.21, $p < .05$, 12.34, $p < .01$). All categories were most popular among Hausa speakers. Respondents' trust in the communication material was measured on a 5-point Likert scale (1 being very low and five being very high). The mean trust score was 3.68 (SD = 0.92), indicating moderate to high trust. Table 5 shows language trust ratings.

A one-way ANOVA showed significant differences in trust scores across languages, $F(3, 308) = 4.87$, $p < .01$ (Table 7). Post-hoc tests established that trust was significantly higher among Hausa speakers (M = 3.92, SD = 0.88) compared to Igbo (M = 3.55, SD = 0.94) and Yoruba speakers (M = 3.51, SD = 0.91).

Hypothesis testing and analysis

This study examined four hypotheses regarding the effectiveness of indigenous language communication in disseminating COVID-19 palliative policies. The analysis employed various statistical methods to test these hypotheses, including t-tests, chi-square analysis, and ANOVA, with results presented below.

Comprehension Levels Across Language Types

To test for H1: indigenous language communication leads to higher comprehension levels than English-only communication. An independent samples t-test compared comprehension scores between indigenous language and English-only communications. As shown in Table 8, participants who received information in Indigenous languages ($M = 4.12$, $SD = 0.76$) demonstrated significantly higher comprehension levels than those who received information in English-only ($M = 3.41$, $SD = 0.92$), $t(310) = 5.34$, $p < .001$, $d = 0.68$. The Cohen's d value of 0.68 indicates a medium to large effect size, suggesting that the language of communication has a substantial impact on comprehension levels. This finding is significant after controlling for education level, age, and location through multiple regression analysis.

Trust in government messages

The second hypothesis (H2) examined whether trust in government messages was higher when communicated in indigenous languages. Analysis shows a significant difference in trust levels between indigenous language and English-only communications. As detailed in Table 9, messages delivered in indigenous languages garnered significantly higher trust scores ($M = 3.89$, $SD = 0.82$) compared to English-only messages ($M = 3.21$, $SD = 0.94$), $t(310) = 4.76$, $p < .001$, $d = 0.61$. The medium effect size ($d = 0.61$) indicates a practically significant difference in trust levels based on the language of communication. Additional analysis confirms that this effect remained significant after controlling for previous trust in government and education level.

Use of indigenous languages and increased policy acceptance

The third hypothesis (H3) investigated whether policy acceptance rates were higher among populations reached through indigenous language communication. A chi-square test of independence shows a significant relationship between the language of communication and policy acceptance, $\chi^2(1) = 15.34$, $p < .001$, $V = 0.22$. As shown in Table 10, 75.9% of those receiving information in indigenous languages participated in palliative programmes, compared to 52.2% of those receiving English-only communications. The Cramer's V value of 0.22 indicates a moderate association between the language of communication and policy acceptance. Logistic regression analysis confirms this relationship remained significant when controlling for access to information channels and location.

Channel type impact on effectiveness of indigenous language communication

The fourth hypothesis (H4) examined whether the effectiveness of indigenous language communication varied by channel type. A one-way ANOVA established significant differences in effectiveness across communication channels, $F(4,307) = 12.46$, $p < .001$, $\eta^2 = 0.14$. Table 11 presents the detailed results across different channels. Post-hoc analysis using Tukey's HSD test revealed that radio and community meetings were significantly more effective than other channels. The detailed comparisons are presented in Table 5. The large effect size ($\eta^2 = 0.14$) suggests that channel choice substantially impacts communication effectiveness. Radio and community meetings emerged as the most effective channels, with mean effectiveness scores

of 4.21 and 4.15, respectively. This finding remained consistent across different demographic groups and locations.

Interview Findings

Thematic analysis of the interviews yielded five themes: (1) cultural relevance, (2) trust and credibility, (3) accessibility, (4) challenges and barriers, and (5) suggestions for improvement.

Cultural relevance

The participants underlined the importance of clearly and culturally appropriate explanations of palliative policies. Many participants said that using Indigenous languages helps to contextualise the material and make it more relevant to the group under discussion. "People were able to establish a stronger connection with them by delivering the messages in our Indigenous language, employing well-known proverbs and illustrations," a well-known community member stated. The laws appeared more pertinent to our daily operations.

Trust and credibility

Establishing credibility and reliability via information sharing was essential when incorporating recognised community members, such as religious and community leaders. The participants admitted to a higher tendency to believe and use information from trustworthy sources. One healthcare industry expert said, "People frequently tend to place greater confidence in their community leaders than government officials." The policies had greater weight and credibility when the leaders actively engaged in their dissemination.

Accessibility

The respondents underlined the need to make policy information widely accessible in indigenous languages, particularly in rural areas with lower literacy rates. Radio broadcasts and community meetings were the best ways to reach these folks meaningfully. According to a rural peasant, many of the inhabitants in their “village are illiterate in English and unable to read newspapers.” Radio shows broadcasted in indigenous language provided much information on government assistance.

Challenges and Barriers

Despite the drawbacks of adopting Indigenous languages, the interviewees highlighted several challenges and obstacles to effective communication. The need for regular and timely updates, many linguistic forms in certain places, and the poor media infrastructure in rural regions are all examples of barriers. One media expert emphasised the difficulty of “creating material in many languages while maintaining message consistency and accuracy.” This effort became much more challenging as the pandemic spread because conditions changed quickly.

Suggestions for improvement

The respondents made many suggestions for improving the distribution of palliative care plans in Indigenous languages. This project calls for greater group collaboration centred on the community, more money allocated to communication platforms centred on the community, and the adoption of standard translation criteria. One well-known local advocated that the government “collaborate more closely with neighbourhood community associations and non-

governmental organisations (NGOs) that are well-versed in the language and traditions specific to each region." They assured that the messages are tailored in this manner to the specific requirements and preferences of each group could be more practicable.

Discussion of findings

This study highlights the critical importance of Indigenous languages in communicating government palliative measures during the COVID-19 pandemic, which has huge implications for public health communication in multilingual societies. The findings suggest that using indigenous languages significantly improved both comprehension and the adoption of policies among those populations where formal education levels were lower and in rural areas. This outcome complements previous research by Umoja et al., (2021) and Onyenweaku (2022), which established the core function of language and cultural appropriateness in public health communication. The effectiveness in indigenous language communication is consistent with other findings concerning global health crises responses, such as the study by Piller et al., (2020) on linguistic diversity in COVID-19 and Seale et al.'s (2022) work in Australia on ethnic minority communications, which together point toward a universal principle of effective native language communication.

Such convergence in effectiveness among different indigenous languages is particularly interesting to the intricate relationship between language, culture, and public health communication. Hausa speakers showed a consistently higher score in comprehension and trust than other language groups. This trend probably mirrors deeper socio-cultural and infrastructural factors beyond just linguistic differences. This resonates with the work of Heinrichs et al., (2022), which focused on health communication in multilingual communities and emphasised the need for communication strategies that consider not just language translation but broader cultural and community contexts. Similar patterns were observed in the use of indigenous languages during the Ebola crisis in West Africa (Eleshin, 2023) and HIV/AIDS communication campaigns in South Africa (Maledo & Ativie, 2022). Both studies point to consistent principles in the role of indigenous languages during health crisis communication.

The study's findings on communication channels provide important insights into the practical applications of indigenous language communication strategies. The better efficacy of radio broadcasts and community meetings endorses Ogwezzy-Ndisika (2022), whose seminal review of the African communication system underscores the role of traditional forms of media in reaching dispersed populations. The finding takes on added importance in light of recent digital divide studies in health communication, such as de Pedro Ricoy's (2023), which worked with language access during COVID-19 in Peru and found greater effectiveness in traditional media channels for reaching vulnerable populations.

The rise of trust as an important determinant in indigenous language communication effectiveness extends knowledge on the credibility of public health messages in diverse societies. The trust scores, which are so much higher for indigenous language communications than for English-only messages, are similar to the findings from studies on other health crises, such as Fadipe and Salawu's (2021) examination of African Indigenous language media in COVID-19 digital health messaging. However, they differ from the findings of Adeyeye and Salawu (2024), which may have little to do with the veracity of indigenous language use to build trust and ownership, as much as it would have more to do with the politics of language and general social perception of the superiority of English language. The trust capacity of indigenous languages rests on a bedrock of cultural and social factors, as reflected in the

findings of Ihekweazu et al., (2022) on cultural congruence in Nigerian public health communication. The challenges identified in the implementation of indigenous language communication strategies mirror broader systemic issues related to public health communication in developing nations. The issues of consistency in the message across multiple languages, translation quality, and coordination of the different channels are not very different from those recorded in other contexts around the world.

These findings are consistent with UNESCO's (2020) comprehensive report on indigenous language communication during the pandemic, where similar infrastructure and resource constraints were noted across various regions. The implications of this study go beyond the immediate COVID-19-related communications, carrying more general principles about public health communications in multilingual societies. Its clear benefit in improving understanding and fostering trust lends credence to the call to have Indigenous languages play a greater role in public health communication strategy, as Sengupta (2024) recently proposes in her work on multilingual health communication. The results further establish the importance of cultural competency in health communication and complement recent calls for more fully integrating cultural and linguistic considerations in health messaging strategies (Matanda et al., 2023).

This study suggests that public health communication in multilingual societies requires a basic rethinking of communication strategies. Rather than treating indigenous language communication as an optional add-on to English-language messaging, the results call for an approach that privileges Indigenous languages and cultural competency in all public health communication planning. This aligns with recent shifts in global health communication theory, as documented by Seale et al., (2024), toward more culturally-centred approaches to health messaging. The success of indigenous language communication in enhancing policy understanding and acceptance also has important implications for future public health interventions in Nigeria and similar multilingual contexts. These results, therefore, call for continued investment in the infrastructure and capacity-building aspects of indigenous language communication - an investment that resonates with the recommendation from recent studies on health communication in diverse linguistic contexts (Ogunniyi et al., 2023; Akpan, 2023). The benefits of indigenous language communication identified in this study provide strong empirical support for policies prioritising indigenous language use in public health communication, particularly during health crises.

Conclusion and recommendations

The COVID-19 epidemic highlighted the need for efficient public health communication, particularly in multicultural and multilingual settings. With more than 500 indigenous languages spoken in Nigeria, this research examined how indigenous languages were deployed to communicate government palliative measures throughout the epidemic. The results imply that regional dialects may enhance effective public health communication, understanding, and dissemination. Eventually, this could increase the efficacy of crisis response initiatives.

Results show that most respondents voiced that they received information about palliative policy in their mother languages. Most of this information was disseminated through community gatherings, radio presentations, and television programmes. The use of Indigenous languages was linked to greater knowledge and confidence in the information given and greater acceptance rates for palliative interventions. These results emphasise the need for linguistic and cultural sensitivity in public health communication so that individuals may better comprehend and disseminate important health-related information.

The interview findings demonstrate the need to actively participate in the community and adjust to other cultures to improve the efficacy of communication in one's mother-tongue. Recognised community members, like religious and community leaders, are crucial in building credibility and promoting the adherence to health advice. This emphasises the need to develop linguistic, cultural, and contextually relevant communication tactics that also consider the peculiar circumstances of the region.

This study identified several obstacles that hinder efficient communication in Indigenous languages. Among them are the need for regular and timely information, linguistic variety, and a weak media system. These restrictions emphasise the difficulty of implementing communication techniques in settings with few resources and the need to design solutions that suit the situation. Multiple media works examined across various languages and media platforms pointed to differences in audience involvement, cultural appropriation, and message clarity. Better quality control and consistency in creating communication products are just two benefits; more focused and regional approaches that consider the particular requirements and preferences of numerous language and cultural groups are also highlighted.

Thus, the following suggestions are proffered to improve Indigenous language communication during a public health communication campaign to address a public health issue like COVID-19, such as:

1. Prioritising the utilisation of indigenous languages and messages pertinent to the culture in public health communication initiatives. While this is already the case for the most part, signalling it as a core part of communication policy for intervention communication campaigns sends the message that indigenous languages are not just used because of their utilitarianism, but also as a political statement that indigenous languages are a part of the health communication policy. Public health professionals and legislators should recognise the need for linguistic and cultural diversity in health crises communication and make the use of indigenous languages a part of the stipulated communication approaches by law.
2. Richer and wider collaboration with local communal and traditional systems and structures enables the adoption of indigenous languages in public health communication campaigns to boost acceptance of policies. Given that these systems are part of the folk media, co-opting them into these campaigns boosts the credibility of the campaigns. This also increases the extent to which the policies are accepted by the targeted communities.
3. Public health media should make investments in local community-serving media channels, including community radio. Studies have long established the strengths of community radio as an effective rural/grassroots' mobiliser and tool for information dissemination. It could serve governments and other organisations dedicated to improving public health to drive the creation and sustenance of mass media that are rural-area focused. Community radio can foster increased awareness and engagement, whilst also encouraging increased adoption of government policies around health promotion, as witnessed during COVID-19.
4. Establish standardised procedures for translating, adapting, and authorising public health communications in various languages and cultures. This will guarantee the quality and calibre of communication materials in Indigenous languages.
5. Utilise social and digital media platforms: While traditional media is still significant, it is imperative to utilise social and digital media platforms to provide health

information in Indigenous languages. Increasingly, younger internet-using consumers should be the main target of marketing initiatives.

Limitations and future directions

Evaluation of the results must consider the research constraints. First, there is a potential that the mixed-methods samples does not represent all Lagosians in particular, and Nigerians in general. This is particularly true when one considers the dispersion of the population according to language and geography. More thorough and representative samples might be employed in the future research to increase the generalisability of the findings. Furthermore, the very modest content analysis and interview sample sizes could have limited how well they represented various viewpoints and experiences on indigenous language communication. Future research could incorporate a larger range of stakeholders and media items.

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