Influence of Cultural Factors on Covid-19 Vaccine Acceptance Campaigns among Residents of Ara Community Kwara State

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Abstract
COVID-19 vaccination campaigns have been one of the major health strategies which are all geared towards exposing people to different messages on COVID-19 vaccination. However, cultural factors related to individuals and societal health beliefs and practices have generated concerns about COVID-19 vaccine acceptance. Thus, this study explored the influence of cultural factors on COVID-19 vaccine acceptance campaigns among residents of Ara community in Kwara state. To know the cultural factors in the acceptance of COVID-19 vaccine campaigns, the theory of Reasoned Action was used to lend credence to the work. Moreover, an in-depth interview methodology was employed to conduct interviews with 21 residents of the Ara community who were chosen as the study's informants. Using the phenomenological design and thematic data analysis, findings emerged. The study found that cultural factors to acceptance of COVID-19 vaccine campaigns among Ara residents have positive religious influence, socio-

cultural factors, leadership influence, personal belief in the scientific method, trust in government initiatives, ideology and myth on vaccination, communication tone and Community Leader. Therefore, it was emphasised as part of recommendations that subsequent campaigns should make use of culturally appropriate language, visuals, and metaphors that align with specific cultural values, beliefs and practices, to make the message effective.

Keywords: Acceptance, Campaigns, Cultural Factors, COVID-19 Vaccine, Ara Community

Introduction

Scientists, businesses, and global health organizations advocate for COVID-19 vaccination, emphasizing its role in reducing disease risk by fostering natural protections, such as antibodies (Centers for Disease Control and Prevention 2018). Vaccines prevent millions of deaths annually from diseases like diphtheria, tetanus, pertussis, influenza, and measles, and there's potential for COVID-19 to be a globally preventable disease (World Health Organization,2020). Despite sufficient vaccine production and distribution, the success of COVID-19 vaccines hinges on global acceptance (Britton, Ball, and Trapman 2020; Lazarus et al. 2021; Pogue et al. 2020). Effective defense against highly contagious diseases, like COVID-19, requires a substantial portion of the population, approximately 60%, to embrace vaccination for the development of "herd immunity" (Britton, Ball, and Trapman 2020). This is particularly crucial for safeguarding vulnerable populations, such as seniors, whose immunity may be less effectively built by vaccines (Gustafson et al. 2020).

Vaccine hesitancy is not exclusive to COVID-19 and has been observed in 90% of countries, contributing to a 30% rise in global measles cases (The Lancet Child & Adolescent Health 2019). Similar hesitancy exists towards COVID-19 vaccines, with varying acceptance levels across cultures (Alexandre et al. 2020; Detoc et al. 2020; Fisher et al. 2020; Lazarus et al. 2021; Palamenghi et al. 2020; Trzebiń ski et al. 2021). In addressing this, researchers must explore factors associated with vaccine hesitancy and acceptance (Pogue et al. 2020). Various elements, such as demographic (e.g., younger age) and sociodemographic (e.g., lower education attainment) factors, alongside beliefs and attitudes (e.g., invincibility; Leonhardt et al. 2021), often influenced by the spread of misinformation (Fisher et al. 2020; Puri et al. 2020), contribute to vaccine hesitancy. Motivational (e.g., prosocial) and contextual (e.g., availability of valid information about the disease and the need for herd immunity) factors have been identified to promote higher vaccine acceptance (Lazarus et al. 2021; Palamenghi et al. 2020; Pfattheicher, Petersen, and Böhm 2021). Given the global variation in vaccine hesitancy, further research is essential to comprehend how cultural factors shape vaccination acceptance.

Despite the urgent and compelling need for COVID-19 vaccination, communities still exhibit considerable vaccine apathy and profound hesitancy (Akther&Nur, 2022). Vaccine hesitancy is a conscious and thoughtful emotional and cognitive reaction when weighing the risks and benefits associated with vaccination (Ileyemi, 2023). It manifests as disinterest, with weak attitudes and minimal consideration given to vaccination (Funk, 2021). In Nigeria, the non-acceptance of

COVID-19 vaccination remains a significant issue, primarily driven by rumours suggesting that the vaccine might cause infertility that vaccines are unsafe, that they can alter DNA, that they pose risks to individuals with allergies, and that they could lead to long-term effects, in addition to various conspiracy theories (Alqahtani, 2022).

Binagwaho and Mathewos (2022) suggest that rural communities face challenges in accessing information due to lower literacy levels, prevalent conspiracy theories, misinformation, and deeply ingrained beliefs that strongly influence their receptiveness to messages about COVID-19 vaccines. Additionally, people's cultural beliefs, values, and norms significantly influence their acceptance of vaccines (Nair &Selvaraj 2021).In the context of COVID-19 vaccines, communication campaigns are designed to alter behaviours and attitudes towards vaccine acceptance. Several studies have explored the acceptance of the COVID-19 vaccine(Alqahtani, 2022; Fakunle&Okunola 2022; Idowu et al, 2022; Irma et al, 2022); However, Marie, Frederik, Alexander, and Michael (2021) focused their investigation on COVID-19 acceptance, emphasizing the significance of trust, personal consequences of infections, and debunking myths to guide communication strategies. Idowu et al. (2022) confirmed that attitudes towards COVID-19 vaccination acceptance are influenced by knowledge and the willingness to receive the vaccine. Despite various studies, limited research has been conducted on cultural factors influencing COVID-19 vaccine acceptance (Alqahtani, 2022; Albatineh et al., 2022; Fakunle&Okunola, 2022; Idowu et al., 2022; Irma et al., 2022). It is on this premise that this study aims to address the gap in the literature by investigating the influence of cultural factors on COVID-19 vaccine acceptance campaigns among people of the Ara community in Kwara State.

Literature Review

Cultural Factors and Acceptance of COVID-19 Vaccine

Cultural factors encompass customs, beliefs, values, behaviours, and attitudes shared by a specific group, influenced by historical, social, economic, and political factors, varying across diverse cultures and subcultures (Lou et al., 2021). It defines an individual or group through knowledge, beliefs, art, morals, laws, and customs (Abdullayeva, 2020), acting as the foundation of their identity and guiding the lifestyle and pursuits within their societal interactions (Banks, 2020). Culture shapes beliefs, values, and practices acquired from birth, profoundly impacting one's mindset, as well as biological and sociological processes (Abdullayeva, 2020). Cultural beliefs, deeply rooted in history and passed down through generations, shape how individuals and groups perceive the world and interact with each other, thereby forming the collective identity of a community (Todd et al, 2022). They wield significant influence over various aspects of life, encompassing religion, education, family structures, social norms, and political systems. Moreover, cultural beliefs extend their impact on health and wellness, including attitudes towards illness, healing, and medical treatments (Todd et al, 2022). Nevertheless, culture remains a significantly overlooked aspect of public health interventions (Lou et al., 2021).

While not monolithic, cultural beliefs hold considerable importance within and between cultural groups, evolving (Sharma et al., 2021). They play a significant role in shaping perceptions of truth and falsehood, attitudes towards preferences and aversions, values regarding morality, and

people's behaviours (Boyce & Wood, 2020). Beyond these aspects, culture also exerts its influence on emotions, affecting how individuals experience certain situations and express their feelings (Ng & Tan, 2021). Alyssa (2022) emphasizes that religion plays a vital role as a cultural factor, he envisions that diverse religions harbour distinct beliefs and practices that shape habits and moral values. Human behaviour significantly revolves around language development and usage, serving as a medium of communication and a means to convey thoughts and knowledge. Language profoundly influences how people interact and express themselves (Altarriba&Basnight-Brown, 2020).

Acceptance of the COVID-19 vaccine is influenced by a range of cultural underpinnings that vary across different societies and populations which shape attitudes towards vaccines, as well as influence vaccine uptake and adherence. Understanding these cultural underpinnings is important for developing effective vaccine campaigns and increasing vaccine acceptance (Josiah &Kantaris, 2021; Quinn, et al., 2021; Dior et al., 2020; Harapan, et al., 2020; Xiao & Wong, 2020).

Josiah and Kantaris (2021), opined that beliefs about health and illness can influence vaccine acceptance. The scholars stressed that in other cultures, there is always a belief that vaccines can be harmful, or that natural remedies are more effective. Huo et al. (2021) believed that social norms and values can shape vaccine acceptance. Vaccine decisions may be viewed as a personal choice in some cultures where there is a strong emphasis on individualism, while in some other cultures, there may be a greater emphasis on collective responsibility, and vaccination may be viewed as a way to protect the community (Huo et al., 2021). Also, cultural belief as it relates to trust in healthcare providers is an essential part of vaccine acceptance as some cultures have distrust in Western medicine or the healthcare system which affects attitudes towards vaccines and vaccine campaigns (Huo et al., 2021).

Fakunle, Okunola, Opadere and Adeoye (2022) opined that some cultures provide greater tolerance for risk as individuals may be more willing to forego vaccination and in other cultures, there may be a greater perception of risk, and individuals may be more likely to seek out vaccines (Fakunle et al, 2022). Also, the way information is communicated about vaccines can affect vaccine acceptance and the use of cultural symbols and references can also be important in vaccine campaigns (Solak, 2020). However, understanding the factors influencing vaccine acceptance is vital for enhancing COVID-19 prevention (Irma et al., 2022). More so, beliefs and attitudes pose a significant barrier to COVID-19 vaccine acceptance (Richard-Eaglin & McFarland, 2022). However, individuals within communities that value vaccines are more inclined to accept them, while those within sceptical communities may be less likely to do so (Kang, Goldlust, Lee, Hughes, Bansal & Haran, 2022).

COVID-19 Vaccine Acceptance Campaign in Nigeria

One aspect of communication that is designed to change the behaviour of the public and their health is health communication. According to Chiemena (2021), health communication includes verbal and written strategies to influence and empower individuals, populations, and communities to make healthier choices. With the outbreak of the COVID-19 pandemic, there is an urgent need to inform the public about the risks and preventive measures that must be implemented. Several communication channels have been employed by the government, health institutions, non-governmental organisations and other stakeholders to reach the general public. One of such channels is the mass media. Ocheni and Nwankwo (2012) acknowledge that the media offers great potential for educating the public about health issues.

COVID-19 vaccination in Nigeria is an ongoing immunization campaign against severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), the virus that causes coronavirus disease 2019 (COVID-19), in response to the ongoing pandemic in the country. Since then, the government and its partners, including the World Health Organization (WHO), have been making deliberate efforts to ensure people in rural, and semi-urban communities across the 36 States and the Federal Capital Territory (FCT), are not left out of the vaccination drive. Adopting various strategies such as community outreaches and SCALES (Service delivery, Communication, Accountability, Logistics, Electronic management of immunization data and supportive supervision) interventions, the government is ramping up the COVID-19 vaccine uptake in the country To achieve herd immunity against COVID-19, Nigeria is aiming at 70% (in line with the WHO global target) of the total eligible population receiving the primary series of vaccination by March 2023, with a renewed focus on priority. populations and vulnerable groups.

One of the COVID-19 campaigns in Nigeria is the One UN Nigeria COVID-19 Basket Fund which is a single COVID-19 financing and investment platform for diverse stakeholders (UN and other multilaterals, bilaterals, private sector, foundations, philanthropists) to channel financial support to ensure an effective response to the COVID-19 pandemic in Nigeria. The COVID-19 Basket Fund is facilitated and implemented by the UN system in Nigeria, through a project management board made up of representatives of the Presidential Task Force on the COVID-19 Response, relevant government agencies, contributing donors and the UN system (UNICEF, 2020). The “Follow Who Know Road” campaign was developed by Breakthrough ACTION in collaboration with the Nigerian government, between Aug. 2022 and Feb. 2023 an estimated 26 million unvaccinated Nigerians heard intentional, data-informed messages encouraging them to protect themselves and others. The idea for the campaign came from vaccine hesitancy insights and data suggesting that people would be more likely to get the vaccine if they knew it could prevent their loved ones from getting sick. More than two in three unvaccinated people exposed to the campaign showed a positive change in their vaccine intentions and behaviour, according to an assessment done by Kantar, a data analytics and brand consulting company. Of those unvaccinated people who heard the campaign on the radio or on television, 14 million received a vaccine soon after and five million more said they wanted one

as soon as possible. This level of outreach was possible even in the midst of a public health emergency.

The campaign, a redemption story told in 60-second TV and radio spots over nine months, follows a character named "Madam Naija," a trusted community leader who is sceptical about COVID and the vaccine, gets COVID-19, infects her family, gets vaccinated and finally becomes a champion in the community for the COVID-19 vaccine. In developing the campaign, the Breakthrough ACTION-Nigeria team shaped its work around a WHO model called the 3 Cs: confidence (in the safety and efficacy of vaccination), complacency (convincing people to take action) and convenience (making it easy to access the vaccine). Stakeholders came together to develop creative concepts that were then tested with the intended audiences. After some tweaking, Follow Who Know Road was launched (Stephanie, 2023).

An effective vaccine implementation program entails a well-coordinated supply and distribution system, along with the successful uptake of vaccines by end-users. A communication campaign is a coordinated effort to convey a specific message or set of messages to a targeted audience through a variety of channels and tactics (Cadeddu et al., 2022). Communication campaigns can be used to achieve a wide range of goals, from promoting a new product or service to raising awareness about an important social issue (Xiaoquan, 2020). The COVID-19 pandemic has necessitated communication campaigns regarding vaccine acceptance and distribution. To ensure widespread acceptance of the COVID-19 vaccine, communication should be simple, empathetic, and compelling to drive demand for vaccination on a large scale (Kalyani, Shilpa, Sofia &Anushka, 2021).

Binagwaho and Mathewos (2022) asserted that the global COVID-19 vaccine campaign aims to promote the acceptance and distribution of vaccines, a crucial aspect of controlling and ultimately ending the pandemic. According to these scholars, a key objective of the campaign is to foster vaccine acceptance through public education on vaccine safety and efficacy, dispelling myths and misinformation, and addressing common concerns and questions. According Nigeria Centre for Disease Control, NCDC (2022), the COVID-19 vaccine campaign encompasses endeavours to maximize vaccine distribution by coordinating with manufacturers, setting up distribution centres, collaborating with healthcare providers to administer vaccines to the public, and formulating clear and effective prioritization strategies to ensure that the most vulnerable individuals receive vaccination as a priority (NCDC, 2022).

The COVID-19 vaccine campaign entails collaborating with community leaders, organizations, and stakeholders to foster vaccine acceptance and ensure equitable vaccine distribution (Katzman&Katzman, 2021). It involves partnering with faith-based organizations, community groups, and local allies to establish vaccine clinics and disseminate communication materials (Suz et al., 2022). Creating a diverse range of communication materials is essential for an effective COVID-19 vaccine campaign, enabling public education and promoting vaccine acceptance (Mheidly& Fares, 2020). Continuous tracking and evaluation are integral to the COVID-19 vaccine campaign to monitor distribution progress and assess the efficacy of communication materials and strategies (CDC, 2022). This involves tracking vaccine uptake

rates, evaluating campaign success, and making necessary adjustments (CDC, 2022). As a critical component of the global effort to control and end the pandemic, the COVID-19 vaccine campaign brings together stakeholders to safeguard public health, facilitate a return to normalcy, and protect communities (Mheidly & Fares, 2020).

Theoretical Framework: The Reasoned Action Theory

The psychologists Martin Fishbein and IcekAjzen developed the theory of reasoned action in 1975, originally as an improvement to the information integration theory. Fishbein (1963, 1967) and Fishbein and Ajzen (1975) both contributed to the development of the theory, which offers insights into decision-making across volitional behavioural domains. Notably, the Theory of Reasoned Action has found significant application in predicting and explaining various health behaviours (LaCaille, 2020). The primary objective of the TRA is to comprehend an individual's voluntary behaviour by exploring the underlying basic motivation driving an action (Yzer, 2013). According to TRA, a person's intention to perform a behaviour is the primary predictor of whether they will execute that behaviour. Additionally, the normative component also contributes to the likelihood of the behaviour being performed (Hagger, 2019). The intention to engage in a specific behaviour, known as behavioural intention, arises from the belief that performing the behaviour will lead to a specific outcome (Ajzen, Czasch& Flood, 2009). Behavioural intention plays a crucial role in TRA, as it is determined by attitudes towards behaviours and subjective norms, and stronger intentions prompt increased effort to perform the behaviour, thereby increasing the likelihood of its occurrence (Fishbein&Ajzen, 2005). The theory of reasoned action seeks to elucidate the connection between attitudes and behaviours within human actions. It primarily serves to predict individuals' behaviour based on their pre-existing attitudes and behavioural intentions. An individual's decision to engage in a particular behaviour hinges on the expected outcomes resulting from that behaviour. Fishbein and Ajzen (1975) formulated this theory while exploring the distinctions between attitude and behaviour. Additionally, the theory of reasoned action acknowledges that certain factors can restrict the impact of attitude on behaviour (Yzer, 2007). The Theory of Reasoned Action incorporates four key terms: Belief, Attitude, Subjective Norms, and Intention (Fishbein&Ajzen, 1975). The theory of reasoned action is primarily utilized to forecast individuals' behaviour based on their pre-existing attitudes and behavioural intentions. Thus, applying this theory to analyse COVID-19 vaccine acceptance will be apparent in this study as people have pre-existing attitudes or cultural influences towards the vaccine, which can be shaped by various factors, including misinformation and myths.

Methodology

The study was conducted in the Ara community, located in the Moro local government area of Kwara state. The community is known for trading and farming, and the predominant religion practised by its inhabitants is Islam. The study adopted a qualitative design. This was opted for in a bid to allow the gathering of in-depth information from the targeted population. Then, purposive sampling was used in the selection of informants. The study adopted unstructured interviews in the collection of data. This allowed for greater flexibility, granting the ability to

respond to information, and adjusting the guide as issues came up in the field. At every stage of the interview, the informants were allowed to opt out of the research. Consent forms were duly written and signed by each informant. At this stage, the informants were also assured that the information provided would strictly be used for research purposes. In-depth interviews were held with 21 informants in the community. While 11 were males, and 10 were females. To ensure the confidentiality of the informants, the use of anonymous identifications was applied. All informants were identified with informants 1–21. The interviews were conducted in the Yoruba language and later translated and transcribed into English for analysis and reporting purposes. The interviews were thematically analysed with NVivo version 10 software.

Findings

The interview questions prompted informants to relay their experiences concerning cultural factors on acceptance of the COVID-19 vaccine campaign. However, the findings in this study provided six themes. The emergent themes reflect the informants' cultural factors in the COVID-19 vaccination acceptance campaign. The four emergent themes are (i) Socio-cultural factors (ii) personal belief in the Scientific method (iii)Trust in government initiatives (iv) Ideology and myth on vaccination (v) Communication and Language Tone (vi) Community Leader

Theme 1: Socio-Cultural Factors

Socio-cultural factors encompass the social, cultural, and community-level influences that shape individuals' attitudes, behaviours, and decisions regarding COVID-19 vaccination. Informants reinstated sociocultural factors as one of the factors in acceptance of the COVID-19 vaccine. Lived experiences from the informants showed that positive religious influence plays a role in shaping residents of the Ara community's perspective on acceptance of the COVID-19 vaccine. Positive religious influence is the beneficial impact that religious beliefs, practices, and values can have on individuals, communities, and society as a whole. In the Ara community, the dominant religion is Islam and this influences their perspective towards vaccination. Their views revealed that Islam places a high value on the preservation of human life and getting vaccinated against COVID-19 is viewed as a responsible action to protect themselves and others from the potentially severe health consequences of the virus. The people ascertained that Islam prohibits actions that may cause harm to oneself or others and by getting vaccinated, individuals can contribute to the prevention of the spread of COVID-19 and reduce the risk of harm to vulnerable individuals. Views of the informants corroborate this fact:

> *I believe that getting the COVID-19 vaccine aligns perfectly with our Islamic teachings. The Quran emphasizes the importance of preserving life, and I see vaccination as a way of fulfilling that duty. It's a responsible action not only for my health but also for the well-being of my community (informant 8)*
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> *For me, following Islamic principles means taking care of my health and the health of those around me. That's why I chose to get vaccinated against COVID-19. Islam teaches us to seek medical treatment, and I see vaccination as a proactive step in preventing harm and promoting the greater good (informant 2)*

> *My perception is that Islam encourages us to take practical steps to protect ourselves and others from harm. When it comes to COVID-19 vaccination, I see it as a responsible choice. It's about following the teachings of our faith while also relying on medical expertise to make informed decisions (informant 17)*

In the same vein, informants 8, 11, and informant 13 buttressed further that Islam religion is a key factor in acceptance of the vaccine. It is noteworthy that the religion in the community to an extent brings about a positive attitude to vaccination in the community, as there is no religious influence against such action.

> *My religion did not go against being vaccinated and even in the Holy Quran, there Is nowhere that is stated that or stipulated not to take care of oneself. And I have never seen an Alfa that has ever said that when something is wrong with you, you should not use drugs. Almighty Allah even said we should take care of our health (Informant 11)*

The proximity of Ara village to Kwara Polytechnic has also influenced the knowledge of the inhabitants on COVID-19 vaccination. Informants thought that the presence of students living in the community has made them get to know certain things about the vaccination which in turn brings about acceptance. Students' level of exposure, level of education and knowledge of vaccination directly affect the residents of the Ara community's acceptance of the campaign.

> *When it was announced on the radio that we should accept the vaccine to prevent Corona, the virus, you know I had not learned, I just informed our children who live with us here in the Ara community, who are students of the Ara community and they enlightened us on the campaign we heard on Radio, the information from all these children also helped us because they took their time to explain everything that is not clear to us (informant 12)*

> *I appreciate how the students took the time to explain the COVID-19 vaccines to me. They spoke in a way that was easy to understand, and I feel more informed now. They even shared stories about their own families getting vaccinated, which made me feel more comfortable (Informant 11)*

Peer groups play a significant role in socialization and development, as they influence behaviours, attitudes, and choices. Also, recounting the lived experience of the informant, it was found that some informants also accepted the vaccine based on peer influence. Social norms and peer influence play a significant role in shaping behaviour, including vaccine acceptance. The views of the Informants were captured here:

> *I did not want to accept COVID-19 vaccination before, because I wasn't diagnosed with the virus, and my own belief is that only sick people need to get treatment. I later got the vaccine because virtually everyone around me and the community had received it, I just joined them so that I wouldn't be the only one who did not accept it. It's because everyone does it that made me take it (Informant 3)*
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> *I noticed that many people in our community have already received the COVID-19 vaccine. It seems like getting vaccinated is the expected thing to do within our*

community, so I feel motivated to get the first dose when the health workers come. Well, I accept the campaign mainly because most people in the community already took it, and that's what persuaded me to also take the vaccine. (Informant 15)

Hmm, not about culture or belief here, but at times it's all about what people do at times, you follow steps or soothe, since it's not harmful, I also joined them to receive the vaccine and since almost everyone took it and no repercussion, I believe so much in herbs and I am using it till today, but you just follow the trend at times (Informant 21)

Theme 2:Belief in the scientific method and Trust in Governance

Belief in the scientific method entails trust in scientific methods to the development of vaccines. The informants have confidence in scientific methods on the safety and effectiveness of vaccines to prevent the spread of the virus which brought about acceptance. Their views are captured below:

When it was announced that we should get the vaccine, I didn't even have any doubt about it, we often receive the vaccine when we are kids and it works well on us, I have personal belief also in drugs and medicine and I know it works, when you go to the hospital, those nurses and doctors will give you the right portion for any sickness compare to herbs that you won't know the quantity, I always take drugs and when we were told to do so, I did not even hesitate. (Informant 17)

My own belief is that both the traditional herbs and vaccine are good all these vaccines are made up of "ewe and Egbo" and they both work well, I accepted the vaccine because I have a belief that the vaccine is good (informant 9)

I've always had faith in the progress that science brings, and that's why I eagerly got vaccinated against COVID-19. I've seen how vaccines have changed the course of history, and I'm confident that these vaccines will help us overcome this pandemic (Informant 16).

In the same vein, when people believe in government initiatives, it means they have faith that the actions and programs introduced by the government will lead to positive outcomes and improvements in various aspects of society. In the same vein, some informants corroborate the trust and confidence they have in the vaccination efforts undertaken by the government. They recounted on following public health measures implemented by the government to address concerns about vaccine safety and efficacy through transparent information. The views of the informants were captured here:

Every government has its era, so anything they tell us to do, we need to do it, so far it's to prevent the people from danger. The government know what is good for us and they will not harm us, and since we also asked our children and they also supported it, then I accepted it. (informant 11)

I believe that the government's vaccination initiative is a crucial step in controlling the pandemic and returning to a sense of normalcy. I am

confident that the government's commitment to distributing vaccines equitably will help protect vulnerable populations and prevent further spread of the virus (informant 20).

I don't even doubt the message because I know there are reasons why the Government brings such initiatives for the people and since it's about people's health, we need to embrace it (Informant 18)

Theme 3: Ideology and Myth of Vaccination

Ideology as regards COVID-19 vaccination encompasses various beliefs and viewpoints of residents of the Ara community to acceptance of the vaccine. Informants have a strong ideology on herbs to combat any form of disease. Ideology towards herbs reflects cultural beliefs and practices related to traditional remedies, herbal medicine, or alternative treatments. Some informants prefer these remedies over vaccines due to cultural or historical practices, which can impact their willingness to get vaccinated against COVID-19.

My personal belief and upbringing on natural herbs do not make me value or put more importance on modern vaccines. I did not believe in using herbs together with modern drugs, because combining the two can be detrimental, I only chose herbs that have been working for me and have never fallen sick in my entire life…. You can even ask my people around (Informant 10)

I believe that consuming a specific combination of herbs will help boost my immune system and protect me from getting COVID-19. I think that using certain herbal remedies can provide a natural alternative to COVID-19 vaccination, but not gotten vaccinated till now because I am not always available if I chance I might consider getting it (Informant 5)

While also sharing her experience, informant 21 believed that natural remedies can provide sufficient protection against the disease:

Honestly, both vaccines and herbs are good, and I did not go against people deciding on which one works best for them, no culture goes against vaccination in our community here, but I believe so much in herbs and that's what have been using from childhood till now that I am an adult (Informant 21)

In the same vein, some informant believes in myths about COVID-19 vaccination. Informants who believe in these myths are swayed by misinformation that spreads through various sources. These myths can create doubts about the necessity of COVID-19 vaccines. Here are the views that corroborate the findings:

I've heard that the COVID-19 vaccines affect females and give them serious side effects, I heard in the community some time ago that, females were mandated not to receive the vaccine, I don't know how true this is though, but then I was sceptical about such information which made me worried about their long-term effects (Informant 4)

People always have different things to say about the vaccine, some people complained bitterly about it and that they don't enjoy their body after taking it, some said it has severe immediate side effects while some said they don't

have any complaints, these rumours made me unsure about getting vaccinated (Informant 17).

Also, explaining further on myth of prevention of diseases through traditional means, Informant 10 elucidated that he has several cultural intakes in his body that will prevent modern drugs from working on his body:

In fact, let me tell you, I have several "okigbe" and " gbere" and other intakes that will not even make the vaccine work on my body, and I can even give you ways to make some drugs that can prevent any form of ailment….(informant 10)

Theme 4: Communication Tone

Communication tone is the emotional quality or attitude expressed in the way language is used. Informants expressed their thoughts concerning the message tone and message focus of the COVID-19 vaccination campaign which affect acceptance of the vaccine. Informants ascertained that the choice of words and language used by health workers at times instil fear and unwillingness to accept the vaccine while other messages employed a compelling tone. A fearful communication tone was pinpointed by the informants on the COVID-19 campaign they were exposed to as the communication tone intentionally or unintentionally instils fear. The informants recounted their experience on message tone

Truth be told, the way some health workers that came to our community here to inform us about the vaccine communicate to people at times is not good enough, the way they pass across the information even scared people more, they were saying " Ewagbaaberekoroooo, E wagbaaberekoroooooo, " come and receive COVID-19 vaccine, come and receive COVID-19 vaccine" as if we have koro in the community(Informant 6)

Also, the centrality of the message is on those with the virus, which changes informants' attitudes towards acceptance. Informant 6 also explained that the message should not focus on the victims alone but rather on protection. Informant 12 recounted the lived experience of a close relative on communication tone:

I've heard stories of people complaining about the way some health workers present information on COVID-19 vaccination, they complained that the health workers told them if they don't receive the second dose they should not bother to receive the first dose, this creates fear in the mind of people who already receive the first dose and haven't receive the second dose. Some will even say ''E je wagbaAberekoro, ke ma baku" "You should come and receive the vaccine so that you won't die" and this creates fear" (Informant 12)

While also recounting on communication tone of messages they are exposed to, the informants emphasized some compelling messages on the campaign. They recounted messages on the radio with compelling tones and guidelines. Here are the views of the informant who talks about this perspective:

Have listened to a radio programme that compels people to get vaccinated, in the programme people were told that the vaccine helps to take control of one's health and protects them from the serious effects of COVID-19. The

way the information was disseminated was nice and convinced people (informant 2).

I always hear announcements on the radio on COVID-19 vaccination, they always advise us to take the vaccine seriously and the way the information is being disseminated will always warrant you to follow the necessary guidelines (informant 9)

Also, informants talked about the way health officers persuaded them to accept the vaccine with a compelling tone, they talked about health workers' endorsements as they provided accurate information on the vaccine.

Honestly, those health workers are nice as they were lenient in convincing people, although some of them don't know how to relate well with people some of them relate well with us and tell us their personal experience on the vaccination to convince us (informant 8)

Theme 5: Community Leader (Alangua)

The influence of Alangua swayed public opinion and behaviour related to vaccination. Community leaders (Alangua) in the community have established networks and relationships within the communities which enable them to reach out to community members on the spread of accurate information about the vaccine and encourage acceptance. Informants in the community ascertained that they accepted the campaign on COVID-19 vaccination through the influence of Alangua. In the Ara community, Alangua is the community leader who controls everything that happens in the community, he's the first contact to be reckoned with for any opportunity or development to be carried out in the community. This is evident from the following submissions they made

Alangua played a key role in this community's acceptance of COVID-19 vaccination, when those health workers came, it was Alangua that followed them from one house to another even to the Ara community field where the vaccination was taking place, if Alangua did not support the vaccination, many people will not want to accept or believe it, even including me. If Alangua said we should not receive the vaccine, we don't have any choice but not to receive the vaccine in this community, but we can accept it elsewhere (Informant 7)

Also, Informants 13 and 11 talked about Alangua influence on acceptance by demonstrating confidence in the vaccine and highlighting its importance to encourage others to follow suit.

As for me, I embraced anything that the government brings so far it is welcomed by our Alangua in the community because we know Alangua can never do anything that will harm us (INFORMANT 13)

Alangua also made an important impact towards people receiving the vaccine where most of us receive the vaccine just because Alangua also is involved in the process and he also got his own for us to ascertain that the vaccine is safe, that's why many people receive it. (Informant 16)

We so much have trust in our Alangua, and all of us in this community obey and respect him so much. The trust we had in him made most of us accept the

vaccine because I believe there is nothing herbs cannot solve, I don't dispute the fact that all this "oyimbo medicines" are also made from herbs, but Alangua say matter a lot as it regards the vaccine.

Discussion of Findings

This study examined the influence of cultural factors on COVID-19 vaccine acceptance campaigns among the people of the Ara community in Kwara State. The theme describes the cultural factors of COVID-19 vaccination acceptance campaigns among residents of the Ara community. The study found that positive religious influence is a cultural factor in the acceptance of the COVID-19 vaccine campaign among Ara residents as the dominant religion in the community is Islam, which places a high value on the preservation of human life and getting vaccinated against disease. The finding on religion as a factor in acceptance is however in tandem with López-Cepero's (2022) submission that religiosity is linked to COVID-19 vaccination intent, beliefs, and attitudes. It also resonates with Louiegi and Federick's (2021) assertion that religiosity, along with vaccine knowledge, impacts vaccine hesitancy. Furthermore, the results of this research corroborate the assertion made by Kadiri, Ahmad and Mustaffa (2014) that integrating religious principles and the values they impart into STI campaigns would lead to a more favourable transformation in STI-related behaviours among the youth.

Moreover, another factor to vaccination acceptance is the socio-cultural factor, which is influenced by nearness to a tertiary institution (Kwara State Polytechnic), as well as cohabitation of the students with the residents in the community, this gives the residents leverage on the knowledge of the students and ask various questions as it relates to the grey areas on vaccination. Scientific method and government trust were also found as factors in the acceptance of vaccination, as some people believe in the scientific method as a safe way to prevent the pandemic and they believe so much in government initiatives towards health, just as some see it as a means of exploitation by government. These findings are consistent with Lupu and Tiganasu's (2023) conclusions that governance significantly shapes COVID-19 vaccination rates. Similarly, they correlate with Trent, Holly, Abrar, Salmon and MacIntyre's (2021) perspectives that cultural disparities and political influences can sway COVID-19 vaccine acceptance across different nations.

Furthermore, the study uncovers ideology, attitudes towards herbal remedies and myths, and communication tone as additional factors impacting acceptance. The discovery regarding ideological views on vaccination aligns with Lasher, Fulkerson, Seale, Thomas and Gadomski's (2022) assertions that conservative political ideology, which is often associated with right-wing news consumption, can foster vaccine hesitancy. This finding resonates with the works of Al-Ghuraibi, Dighriri, Elrggal and Obaid's (2023) which apposite that socio-demographic factors, leader endorsements, religion, medical policy trust, and sociocultural traits play pivotal roles in vaccine acceptance. Likewise, Irma et al. (2022) found that socio-demographic, cultural understanding, knowledge levels, and health considerations are intertwined with vaccine acceptance.

The study's observation regarding communication tone aligns with Laran, Janiszewski and Salerno's (2014) observation that positive emotional tones in health-related campaigns enhance message sharing. Also, the study found that community leader plays a great role in the acceptance of vaccines, the finding is in tandem with Piltch-Loeb, Savoia, Goldberg, Hughes, Verhey and Kayyem (2021) that traditional information channels increase vaccine acceptance likelihood.

Conclusion

The main focus of this study is to assess the cultural factors of the COVID-19 vaccine acceptance campaign among the people of Ara community in Kwara State. The participants acknowledged various factors that influence acceptance of the COVID-19 vaccine campaign. The study however concluded that the cultural factors to acceptance of COVID-19 vaccine campaign among Ara residents are positive religious influence, socio-cultural factors, personal belief in scientific method and trust in government, ideology and myth towards vaccination, community leader and communication tone. In essence, the study has proven that there is a link between cultural factors and acceptance of the COVID-19 vaccine as there is strong religious influence and traditional leader influence to the acceptance of the campaign in the community.

Recommendations

1. Campaigns should make use of culturally appropriate language, visuals, and metaphors that align with specific cultural values, beliefs, and practices to make the message effective
2. Since traditional leader influence is very effective towards vaccine acceptance, it is therefore recommended that health officers, non-governmental organisations on health and other agencies collaborate with local community leaders, religious figures, and influencers who hold influence and credibility within specific cultural or ethnic groups which can help address community concerns, dispel myths, and promote vaccine acceptance.
3. Religious influence is also a key factor in vaccine acceptance, it is therefore recommended that religious concerns should be addressed by working closely with religious leaders and organizations by emphasizing the compatibility of vaccination with religious values while clarifying misconceptions that may exist within certain religious communities.
4. Since communication tone also plays a significant role towards the acceptance of vaccination campaigns, it is therefore recommended that vaccine-related information should be communicated in a simple and compelling tone with multiple languages to reach diverse communities. This will provide accurate and reliable information to individuals and enable them to decode the message very well.
5. Since some people also believe in the communal decision to accept vaccines, community participation in the vaccination campaign should be encouraged by involving community members in asking questions through town halls, open forums, and other platforms to address concerns and build trust.

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