



# COVID-19 VACCINE: A QUALITATIVE STUDY ON PERCEPTION AND ACCEPTABILITY AMONG STAFF OF THE UNIVERSITY OF CALABAR, CALABAR, NIGERIA.

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## ABSTRACT

The study assessed the perception and acceptability of COVID-19 vaccine among staff of the University of Calabar, Calabar, Nigeria. The COVID-19 pandemic has been reported in all countries of the world with 703,850,963 cases and 7,003,395 deaths and significant adverse health and socio-economic consequences. This qualitative study used seven Focus Group Discussions (FGDs), two Key Informant Interviews (KIIs) and one In-depth Interview (IDI). The study was conducted among both the teaching and non-teaching staff of the University of Calabar. Positive and negative perceptions of the vaccine were recorded. Religion exerted both negative and positive effect on perception and acceptability. Alleged intimidation by the government, other employers of labour and school authorities also affected acceptability. Other barriers to the uptake of the vaccine included: fear of contacting the virus while accessing vaccination, health system barriers such as misinformation from healthcare providers, out-of-stock syndrome, corrupt practices of healthcare providers who would issue the vaccination card to someone who had not actually been vaccinated, distrust in government; also, culture and myths and misconceptions. The findings may provide information for the government, Civil Society Organisations (CSOs) and other stakeholders to promote knowledge and positive perceptions through behaviour change communication regarding COVID-19 vaccine. Attitudinal orientation and reorientation of healthcare providers could address some of the health system barriers associated with poor perception and low acceptability of the vaccine.

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**KEYWORDS:** COVID-19, coronavirus, vaccine, perception, acceptability.

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## **INTRODUCTION**

The outbreak of the novel coronavirus disease (COVID-19), caused by severe acute respiratory syndrome coronavirus - 2 (SARS-CoV-2), was detected in Wuhan city, Hubei province, China in 2019. In response, the World Health Organization, (WHO) on 30<sup>th</sup> January, 2020 declared COVID-19 outbreak a public health emergency of international concern (PHEIC) and, subsequently, on 11<sup>th</sup> March, 2020, declared COVID-19 a pandemic (Zarocostas, 2020; Cucinotta and Vanelli, 2020). Common clinical symptoms of COVID-19 observed included fever, fatigue, dry cough, shortness of breath, pneumonia, anosmia and ageusia (WHO, 2021). The COVID-19 pandemic resulted in disruption of healthcare service delivery, educational and economic activities and local and international travels (Di Domenico et al, 2020; Fakhruddin et al, 2020).

By 2<sup>nd</sup> March, 2024, the number of COVID-19 cases recorded worldwide was 703,850,963 with 7,003,395 deaths (Richardson et al, 2020). In Nigeria, as of December 31<sup>st</sup>, 2020, there had been 87,607 confirmed cases of COVID-19 and 1,289 deaths. By 13<sup>th</sup> April, 2024, these figures had risen to 267,188 and 3,155 confirmed cases and deaths, respectively (Worldometer, 2024). Curiously, the African continent has remained the least affected with a little over 5.0 million confirmed cases (Richardson et al, 2020)

There is currently no cure for COVID-19. Prevention, therefore, remains the best control measure. The measures adopted to control COVID-19 transmission included mainly individual and community actions of improved hand hygiene such as regular hand washing and use of sanitizers, physical distancing and the use of face masks. Vaccination is one of the most cost-effect public health prevention strategies ever known to man. It has been successfully used in the eradication of an infectious disease, smallpox (Smith & McFadden,2002). Similarly, another infectious disease, poliomyelitis has been eliminated in various regions of the world and is, therefore, at the verge of a global eradication, using vaccination (Sutter et al, 2001).

Although population-based, non-pharmaceutical control measures such as social distancing, partial and comprehensive lockdowns, closing schools and businesses and/or wearing face masks in public helped some nations to flatten the epidemic curve, the need for sustainable, more convenient

and acceptable preventive measures became an overdue imperative (Vardavas, 2021; Wu et al, 2021; Fuss, Weizman & Tan,2022, Murphy et al, 2023). So far, vaccination appears to be the only such sustainable measure. Vaccination is meant to slow the spread of SARS-CoV-2 infection and mitigate its health effects (Mostaghimi, 2022). Given the alarming morbidity and mortality associated with COVID-19, the development of a safe and effective vaccine became a critical step to halt the pandemic (Albrecht, 2022). As of December 23, 2020, the WHO documented that 61 COVID-19 vaccine candidates were awaiting clinical evaluation and 172 vaccine candidates were in preclinical evaluation (WHO, 2020). As at December, 2023, more than 13 billion COVID-19 vaccine doses had been administered globally (WHO, 2023).

Despite Nigeria being the first country in the world to introduce the new 5-in-1 vaccine against meningitis (Men5CV), studies had documented challenges faced by Nigeria's vaccination programme such as myths and misconceptions (Etokidem et al, 2014), cultural, political and religious barriers (Anyene, 2014), male child preference (Etokidem et al, 2021) and health system barriers. These challenges have led to low vaccination coverages in Nigeria.

Perception of a health technology is a key determinant of its acceptability and eventual uptake. Therefore, positive perception will lead to increase in uptake while negative perception will lead to outright rejection or reduction in uptake. Nigeria is one of the countries with the worst perception of vaccines. This contributed to Nigeria being one of the last bastions of poliomyelitis. An earlier study by Adejumo et al (2021) documented that only 53.5% of Nigerian healthcare providers had a positive perception of the COVID-19 vaccine and only 55.5% of them were willing to receive the vaccine compared to 86% in the United Kingdom (Williams, 2020). In a related study, Agede (2022) reported that only 46.4% of Nigerian higher institution lecturers used COVID-19 preventive measures. This may be a reflection of the belief that COVID-19 is a hoax and may therefore also affect perception and acceptability of the vaccine.

Little is known about perception and acceptability of the COVID-19 vaccine.

It is therefore pertinent to assess the perception and acceptability of the vaccine among university staff since they have the potential to influence the perception and acceptability of other community members.

**Objective:**

The general objective of this study was to assess the perception and acceptability of COVID-19 vaccine among staff of the University of Calabar, Nigeria.

**Specific Objectives:**

1. To explore the perception of COVID-19 vaccine among staff of the University of Calabar, Nigeria.
2. To assess acceptability of COVID-19 vaccine among staff of the University of Calabar, Nigeria.

**MATERIALS AND METHODS****Study design and study setting**

The research adopted a qualitative data collection methodology. It was conducted from February to July, 2023 to assess the perception and acceptability of COVID-19 vaccine among staff of the University of Calabar, Nigeria. The study took place in the University of Calabar, Cross River State of Nigeria. The University of Calabar is a Federal University located in Calabar, an ancient city with a long tradition of culture and contact with western civilization. The University has a College of Postgraduate Studies, a College of Medical Sciences, 20 Faculties, 3 Academic Centres, 3 Institutes and 116 Departments that offer high-quality academic programmes. The University of Calabar is one of the three tertiary educational institutions in Calabar, the others being the University of Cross River State and the College of Health Technology, Calabar.

**Study population**

The study population consisted of both academic and non-academic staff of the University.

**Data collection**

Qualitative data for this study were collected using Focus Group Discussions (FGD), Key Informant Interviews (KIIs) and In-depth Interviews (IDIs) guides. FGDs were conducted with a maximum of 8 staff from each of the selected faculties. There were altogether four sessions for teaching staff and three sessions for non-teaching staff. In order to ensure homogeneity of discussants within each group, similarity of ranking was considered in the selection. The total number of participants was 64. Key Informant Interviews were conducted with two Deans of Faculties. An in-depth interview was conducted with a Head of Department. Each FGD and interview session lasted between 60 to 90 minutes and had a moderator and note-taker. Each session was audio-recorded after obtaining consent from the participants.

**Data analysis**

The audio records were listened to several times. The field notes were also read several times. Thereafter, transcription of the data was carried out. Data analysis was then carried out both manually and using Atlas.ti software version 8.

**Ethical consideration**

Ethical approval for the study was granted by the Cross River State Health Research Committee (CRS-HREC). Informed consent was obtained from all the participants after explaining the objectives, significance and benefits of the study to them. Participation was strictly voluntary, which implied that any participant who wanted to discontinue participation for any reason was free to do so. All the information provided by the participants for this study were treated with strict confidentiality. Anonymity was maintained by not obtaining participants' names or other identifying information.

**RESULTS**

**Table 1: Frequency of occurrence of key words**

KEY WORD	Frequency of occurrence in group									
	FGD1 Acad*	FGD2 Acad	FGD3 Acad	FG4 Acad	FGD5 NonAc**	FGD6 NonAc	FGD7 NonAc	KII 1	KII2	IDI
COVID-19	20	27	17	19	10	12	12	14	9	22
COVID-19 vaccine	28	30	28	30	21	12	16	9	9	23
Population control	2	0	1	1	2	2	0	0	2	1
China	3	5	0	0	1	2	0	0	0	2
Virus	4	10	7	3	2	4	0	0	2	1
Malaria	2	4	3	3	3	2	5	0	3	0
Typhoid	0	1	1	0	0	0	0	0	0	0
Rumour	3	3	2	1	2	0	2	0	3	0
Symptom	0	3	5	3	1	2	4	3	4	0
Vaccinate/vaccination	3	0	6	5	2	1	1	2	4	3
Health	2	5	6	2	3	2	1	2	3	0
Government	7	6	2	8	6	1	3	0	1	1
Pastor	0	4	1	4	1	0	0	1	0	0
Barrier	3	5	0	4	0	0	2	0	3	5
Immune/immunity	4	0	0	7	0	0	0	0	1	0
Media	4	0	3	6	1	2	1	0	4	2
Religion/religious	3	2	2	2	1	1	3	2	1	2
Tradition/Traditional	0	0	1	3	1	2	0	0	0	0
Culture/Cultural	2	1	0	0	0	1	0	3	0	0
Disease	2	0	1	2	0	2	1	0	1	2
Church	2	2	1	2	1	3	1	3	0	0
Fever	0	1	1	2	8	0	1	2	3	3
Infect/infected	0	0	4	1	3	2	1	2	1	0
Anti-Christ	0	2	1	1	2	0	1	0	0	0
Herb	3	1	2	0	2	1	0	0	1	0
Scam	2	1	0	0	2	1	0	0	0	0
Kill	2	0	0	0	0	3	0	0	0	1
Die/died/death	0	1	1	3	2	4	0	0	2	4

**\*Academic Staff**

**\*\*Non- Academic Staff**

**Tabel 2: Number of sentences in which frequently used key words occurred**

Key word	Number of sentences in which word occurred									
	FGD1 Acad*	FGD2 Acad	FGD3 Acad	FG4 Acad	FGD5 NonAc**	FGD6 NonAc	FGD7 NonAc	KII1 1	KII2	IDI
COVID-19	19	26	14	16	9	10	10	12	7	21
COVID-19 VACCINE	20	22	22	17	13	11	10	9	8	20
Population control	2	0	1	1	2	2	0	0	2	1
China	3	5	0	0	1	2	0	0	0	2
Virus	4	9	7	3	2	4	0	0	2	1
Malaria	2	3	3	3	2	2	4	0	3	0
Typhoid	0	1	1	0	0	0	0	0	0	0
Rumour	2	3	2	1	2	0	2	0	3	0
Symptom	0	3	5	3	1	2	4	1	2	0
Vaccinate/vaccination	3	0	5	4	2	1	1	2	3	3
Health	2	5	5	2	3	2	1	1	3	0
Government	7	5	2	7	6	1	2	0	1	1
Pastor	0	3	1	4	1	0	0	1	0	0
Barrier	3	4	0	4	0	0	2	0	3	5
Immune/immunity	4	0	0	6	0	0	0	0	1	0
Media	3	0	3	5	1	2	1	0	3	2
Religion/Religious	3	2	2	2	1	2	3	2	1	2
Culture/Cultural	2	1	0	1	0	1	0	0	0	0
Tradition/Traditional	0	0	1	0	1	2	0	0	0	0
Disease	2	0	1	2	0	2	1	3	1	2
Church	2	2	1	2	1	3	1	3	0	0
Fever	0	1	1	2	6	0	1	2	3	0
Infect/infected	0	0	4	1	3	2	1	2	1	0
Anti-Christ/666	0	2	1	1	2	0	1	0	0	0
Herb	3	1	1	0	1	1	0	0	1	0
Scam	2	1	0	0	2	1	0	0	0	0
Kill	2	0	0	0	0	3	0	0	0	1
Die/died/death	0	1	1	3	2	4	0	0	2	4

**\*Academic Staff**

**\*\*Non- Academic Staff**

**Negative perceptions about COVID-19 vaccine**  
**Some participants perceived COVID-19 vaccine as a danger.**

“My perception about COVID- 19 vaccine from other viral videos that I saw, was a kind of a camouflage for the developed countries to see how they can intimidate Africans.I saw the vaccine as danger waiting to explode.” (Male, Academic, 40years, FGD).

**COVID-19 vaccine seen as a weapon to kill Africans/reduce the population of Africans.**

“Most people saw the vaccine as a weapon to kill Africans and reduce our population. So, people were like, if I go and take this vaccine now, I will die.” (Male, Non-Academic, 38 years, FGD)

**Positive perceptions about COVID-19 vaccine**  
**COVID-19 vaccine as a solution and evidence of positive action by government**

“I saw the advent of the vaccine as a way being shown to the masses that the government has interest to curb the situation at hand at that time. And I also saw it as a way to subdue the pressure of the pandemic. Because I was told that it was a pandemic that had no cure at the moment, so the vaccine was as an assurance by the government that we are on the game to handle the situation.” (Female, Academic, 36 years, FGD)

**Acceptability of COVID-19 vaccine**

Some felt the vaccine made them stronger and in better health than before.

“I went and took my dose and from the time of the vaccination and now over six months nothing has happened to me. I hear a whole lot of complain like severe headache, fever, I never experienced such. Rather I am even feeling better health-wise like I use to be.” (Academic, M, 48, FGD).

**Some felt, although erroneously, that the vaccine prevented them from having malaria**

“No negative side effect, I felt safe and healthy. And from that moment that I took the vaccine anything called malaria drug I have not taken. I feel strong and better in health now than before” (Academic, F, 29, FGD)

“I will advise my colleagues yet to take to have a rethink and go for the vaccine because it is safe. I have taken it and I am well and strong. You can do same.” (Non-Academic, M, 46, FGD)

**Non-acceptability of COVID-19 vaccine**

The influence of the opinion of foreign “experts” on acceptability was also observed.

“I did not take the vaccine because of the video I saw online from a well-profiled American citizen

that analyzed the vaccine. According to him, he said if you take this vaccine, it will kill your natural immune system.” (Academic, M, 45, FGD)

**Religion and acceptability of COVID-19 vaccine: Negative impact**

“For me I watched a movie and preaching about the negative effect of the vaccine and also the intention of the government, that the intention of the government was to reduce the population of the world over through the vaccine.” (Academic, M, 42, FGD)

“Religion was a barrier because some religious leaders saw it as an anti-Christ. They preached against it and made their people to pray against it.” (Academic, M, 38, FGD)

“A lot of controversy because most people believe the vaccine was a form of 666 initiating people into anti-Christ. Some people also believe that there is a chip in the vaccine. I personally, I don't believe that there was COVID and for me the vaccine was not good enough because some who took it reported to have liver problem” (Academic, M, 27, FGD)

“In my area there was a pastor or a prophet rather that said that COVID-19 was not real, that government came with it just to see how they can reduce population and if you take the vaccine you will die and go to hell fire. It is a sign of the mark of the beast so some members actually followed the lead of their prophet and refused testing or receiving the vaccine.” (Academic, M, 33, FGD)

**Religion and acceptability of COVID-19 vaccine: Positive impact**

“I took the vaccine because a pastor in my church, whom I trust so well, asked me to take the vaccine, so I did but I was initially skeptical about this vaccine of a thing because of all the rumours I read on the media.” (Academic, M, 32, FGD).

“Religious leaders motivated people. Like in some churches you needed to show your card before entering to worship. This made some members to go for the vaccine.” (Non-Academic, M, 38, FGD)

**Intimidation as a tool to induce acceptability**

Evidence of vaccination required in schools.

A parent reported about intimidation by school authorities:

“I took my child to school and they had put up notice that very soon, parents will present their COVID-19 (vaccination) card before entering the school premises.” (F, Academic, 36 years, FGD)

Intimidation by employers and government was reported thus:

“The employers instructed their workers that they must be vaccinated.” (Academic, M, 45, FGD).

“Furthermore, Government directives made people to go and get the vaccine. There was this directive from the Federal Government giving workers a period to be vaccinated or their names will be removed from the payroll.” (Academic, M, 33, FGD)

“Some also took because it was a government directive and there was a task force (to effect compliance). Some forged the document because there was going to be stoppage of salary.” (Non-Academic, F, 42, FGD)

“There was this information that government at a certain period will demand to see COVID-19 vaccine cards in the banks, in your office and even when children need to be enrolled in school. This, I am sure, made most people to rush for the vaccine who ordinarily, would not have and who might not also believe there was COVID -19.” (Academic, M, 51, IDI)

#### **Personal barriers to uptake of vaccine**

Fear of contacting the virus while accessing vaccination

“The crowd and queuing for the vaccine. Someone who wants to go for vaccine can also contact the virus due to the crowd they experience when going to get the vaccine.” (Academic, M, 38, FGD).

#### **Ease of availability of vaccine became a barrier despite worldwide cries for solution.**

“People felt we just had COVID-19 in 2019 and in 2020 vaccines were already flooding everywhere and there was so much doubt. People thought in real sense it could take like 10 years to come out with a good vaccine, so people has so much doubt about the strength and potency of the vaccine. Someone even said we have had HIV for many years now why have they not been able to get a vaccine for it yet it took just months to produce the vaccine for COVID-19.” (Academic, F, 38, FGD)

#### **Health system barriers**

##### **Healthcare providers as sources of misinformation**

“I have a doctor friend who said that taking the vaccine actually affects one from having children. There are different controversies to the vaccine. We saw the bulb lighting also, there were also other health problems of the vaccine.” (Academic, M, 33, FGD)

##### **Out-of-stock syndrome**

“The vaccine was lacking in some centres and so people could not access it easily then.” (Non-Academic, M, 35, FGD)

#### **Corrupt practices of healthcare providers who issue cards without vaccination**

“There was speculation that the vaccine is used to weaken the African and reduce the population so I was afraid and had to get a card without the vaccination.” (Academic, M, 28, FGD).

“I went to one of the centres close by because I needed the card to enable me to apply for something but when I got to the centre they said they didn’t have the vaccine so I was discouraged. I was compelled to go for the vaccine. Since I could not get it then I decided to go get the card without the vaccine. I needed it urgently then to travel.” (Academic, M, 33, FGD)

#### **Distrust in the government**

##### **Lack of faith in Government fuelled disbelief in COVID-19 and affected vaccine acceptability**

“Anything free in Nigeria is questionable. Because we are not used to having something provided by the government free, so if it is free, we are afraid, so we rather pay to have it and we are sure because the free thing could be compromised before it is offered to us.” (Academic, F, 32, FGD).

“A lot of people said that for each dose of the vaccine one takes the foreign body was paying the government, so why will I take when the government is using me to make money for themselves?” (Non-Academic, F, 42, FGD)

##### **COVID-19 or other diseases?**

##### **Similarity of symptoms of COVID-19 and other diseases fuelled disbelief**

“Most of the symptoms of COVID-19 were similar to malaria and typhoid so the people believed that when people had malaria, they attributed it to COVID-19.” (Academic, F, 32, FGD).

##### **False sense of protection by the weather**

“From my area people complained that because of our weather in Nigeria that COVID-19 does not affect people where the room temperature is high; rather it thrives in cold areas. Since our temperature this way is high, many people did not believe that COVID-19 existed in Nigeria. So many people refused to take the vaccine.” (Non-Academic, M, 28, FGD)

##### **Side effect discouraged completion of dosage of vaccine**

“I also experienced fever, the vaccine came and woke the fever that was in me, it was so severe that I had to treat. I became skeptical taking the second dose because I didn’t want to feel the same way I did after the first one.” (Non-Academic, F, 28, FGD)

### **Culture and acceptability of COVID-19 vaccine**

"In my community where I come from, there are certain illnesses we don't use English medicine. My people called COVID-19 "**Akpaipai uto enyin**" and so they already had herbs and did not see any need for vaccine. They could treat through their local herbs." (Non-Academic, M, 30, FGD)

### **Myths and acceptability of COVID-19 vaccine**

"I didn't test because I heard so many stories of what people say about the virus and what happened to people who tested and took the vaccine. Their body could magnetise metal object. I was scared." (Non-Academic, F, 29, FGD)

### **Fear of shortening of one's lifespan**

"There was also other information I got about the vaccine, they said it has the tendency of shortening the life span of people." (Non-Academic, M, 29, FGD)

### **COVID 19 attributed to supremacy battle between America and China**

"For me it was just a tussle between China and America to be known as the world power. I did not believe and still don't believe there was COVID-19." (Non-Academic, M, 39, FGD)

### **Prioritizing recipients of COVID-19 vaccine**

While some felt some categories of persons such as the elderly and healthcare providers should be prioritized, others felt everyone should be considered because the virus does not discriminate.

"No prioritization because the virus does not discriminate, it can affect anybody whether big or small, young or old, rich or poor. So, everybody should be given the vaccine." (Non-Academic, M, 38, FGD)

"I think those who are at more risk should be vaccinated. Like the elderly, their immune system is no more as active as it used to be because of aging" (Non-Academic, M, 39, FGD).

"The health workers should because they are the people that first have contact with patients so they should protect themselves" (Non-Academic, M, 21, FGD)

## **DISCUSSION OF FINDINGS**

The above findings validate those of previous studies which documented that vaccine uptake is influenced by poor perceptions and misconceptions about vaccine efficacy, adverse effects, and the belief that vaccines can cause diseases. Earlier researchers found that those who used vaccines effectively did so for the

purpose of protecting themselves, family and friends. Other reasons which affected vaccine acceptability included recommendation from a family member or close friends (Piccirillo & Gaeta, 2006; Chor, et al, 2009; Etokidem et al, 2014; Vasilevska & Fisman, 2014; Terefa, 2021; Geoghegan, 2020; Kishore, 2021; Dhankher, 2023).

The unwholesome practices of healthcare providers such as issuing vaccination cards even when someone has not been vaccinated can lead to loss of confidence in the health system. This is in tandem with the findings of Thacker (2021) that COVID-19 vaccine uptake is improved when clients have trust in the healthcare system. Similarly, distrust in the government as expressed by the respondents in this study, also contributes to poor acceptability of the vaccine. Trust issues play such an important role in vaccination that Barry (2021) opined that: "the most important ingredient in all vaccines is trust"

The opinion of one of the discussants that people at high risk such as healthcare providers should be prioritized in COVID-19 vaccination is in tandem with the recommendation of the WHO (2020). This is one of WHO's six core COVID-19 vaccine allocation and prioritization principles termed, "Reciprocity" which recognizes those who are at increased risk due to their service to humanity, and the need for them to be prioritized. Healthcare workers fit this definition indubitably. An earlier study in Italy also found that almost all respondents confirmed the need for prioritization of COVID-19 vaccine for healthcare providers. The respondents also saw the need to also prioritize essential services, law enforcement officers and other vulnerable individuals such as the elderly (Craxi, 2021). However, regarding also prioritizing the elderly, Giubilini et al (2020), argued that it should not necessarily be so. They reason that children should rather be prioritized in order for the elderly to derive the benefit of indirect immunity. A close look at the argument by Giubilini et al and the WHO's six core allocation and prioritization principles raises the issue of temporality. Giubilini et al's publication was earlier than the WHO's. It may be reasoned that arguments such as Giubilini et al's may have prompted the WHO to promulgate the allocation and prioritization principles which WHO member countries were expected to comply with.



Although some of the discussants alleged that government used coercion such as threat of stoppage of salary and removal of names from payroll, extensive literature review did not reveal any evidence that government ever issued such a threat. This allegation against government is not peculiar to Nigeria. The fear that employees may make such allegations regarding the vaccine may have prompted the Government of New Zealand to proactively issue a warning that it had no vaccine mandates (NZGov, 2023).

From this study, religion had a dual effect on perception and acceptability of the vaccine. To some, it had a positive effect, encouraging acceptability while to others, it had a negative effect, leading to misperception and discouraging acceptance. That religion plays this dual role was earlier averred to by a researcher in South East Nigeria (Atoi, 2022). Similarly, in an earlier study, Olagoke et al (2021) documented the negative effect of religiosity on acceptance of the vaccine. In their study, they found that some people discountenanced other COVID-19 preventive measures such as social distancing and embarked on religious gatherings believing that God would protect them. Some religious adherents were found to refer to COVID-19 as “an Act of God of which humans have no control over” (Sinding, 2019). With such perception, it is easily understood why there would be low acceptability of preventive measures like COVID-19 vaccination. Other studies which documented the negative effect of religiosity on vaccine acceptability include those of Miligan (2021) and Edwards (2021). Conversely, the Global Alliance for Vaccines and Immunization (GAVI) documented acceptance of the vaccine and encouragement of his members to take the vaccine by the head of one of Nigeria’s most populous religious denominations. He is quoted to have said: “It is foolish to keep having faith that God will protect you from an infection when He has made provision for vaccines that can provide a high percentage of protection. I have taken the jab. I prayed about it and got a clear direction from God to go and receive it” (GAVI, 2021). This is an example of the positive impact of religion on perception and acceptability of the vaccine.

The fear of side effects can affect the perception of any medical technology, not only vaccines. Some of the discussants in this study either did not commence COVID-19 vaccination or discontinued subsequent doses because of the fear of side

effects. In a study in Bangladesh, Moshsin (2022) documented that side effects of COVID-19 vaccine can affect perception about it.

### CONCLUSION/RECOMMENDATION

This study found that acceptability of COVID-19 vaccine is influenced by both negative and positive perceptions. Some participants perceived the vaccine as dangerous while others perceived it as a solution and evidence of positive action by the government. Religion acted as a double-edged sword, improving perception and acceptability on the one hand and negatively affecting them, on the other hand. The importance of trust on vaccine acceptability is highlighted. Culture and myths are also responsible for non-acceptability of COVID-19 vaccine. It is recommended that the government should build trust in the populace through pro-people policies, education and empowerment programmes. Health education and other forms of behavior change communication should be massively embarked upon both by government agencies and civil society organizations. Community, traditional and religious leaders should be made key partners in healthcare delivery. Attitudinal orientation and reorientation of healthcare providers should also be embarked upon so that they can desist from some of the sharp practices mentioned by the participants in this study.

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