

## **Covid-19 Conspiracy Theories, Social Media and Response to Vaccination Campaigns**

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**Abstract:** *Following the outbreak of the novel COVID-19 virus in Wuhan City, China in 2019 and the subsequent metamorphose into a global pandemic in the first quarter of 2020; the world was thrown into frenzy due to information overload about the cause, nature, origin, aim, effect and likely solution to the virus. There was a preponderance of conspiracy theories from all quarters: health, academic, religion, politics, cosmology and mythology about the subject matter. The media, especially social media played a huge role to fan the embers of the theories. Four years on from the outbreak, a lot of the propositions have been proven while many have become obsolete and others have been discovered as false alarm. In addition, globally the fight against the pandemic has moved to the vaccination stage. Accordingly, this study sought to find out the extent and influence of the different conspiracy theories on the vaccination campaigns. 393 adult and educationally advanced residents of Uyo, the capital of Akwa Ibom State, Nigeria were sampled via an online Google questionnaire. The questionnaire was purposefully distributed through social media platforms such as WhatsApp, Facebook Messenger and Telegram etc. Findings from the study revealed first, high level of exposure to conspiracy theories about COVID-19 on social media. Second, despite the high level of exposure to such fake news on the subject matter, the exposure did not influence the acceptance or otherwise of the COVID-19 vaccines by the respondents. The study recommended among other things, promotion of media literacy education among the citizenry and strengthening of legal framework to detect and prosecute erring members of society or who originate fake news.*

**Keywords:** COVID-19, conspiracy theories, social media, fake news and vaccination campaign.

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## INTRODUCTION

The media dependency theory as enunciated by Sandra Ball-Rockeach and Melvin DeFleur in 1976 states that in times of emergencies, or crises individuals tend to depend more on the media to reduce their anxieties or even confirm their fears. And the outbreak of COVID-19 pandemic in 2019 was nothing short of a health emergency. The pandemic was described as an *infodemic* by the World Health Organisation. *Infodemic* etymologically comes from the words information and pandemic due to the sheer amount of information that was published and circulated about the pandemic during the outbreak of the pandemic. Advertently or inadvertently, but definitely unfortunately, most of the information about the subject matter was fake and unsubstantiated. The quest and desire for information due the health crises as highlighted in the media dependency theory above was exploited if not abused in no little way by individuals and institutions with access to social media platforms.

During the peak of the pandemic in early 2020, the World Health Organisation and other relevant health authorities cautioned against the whirlwind of fake and unsubstantiated news that was shared and broadcast on the various social media platforms. In fact, fake news was so rampant that some social media companies like Facebook, WhatsApp and Twitter issued warnings against posting and broadcasting unverified news about the pandemic. Some COVID-19 related posts were either brought down or the account and users suspended. The battle to contain and curtail fake news weighed side by side with the battle against the pandemic. However, the fake news about the causes, nature, origin, aims, effects and likely solution to the virus metamorphosed into different sets of conspiracy theories. At some point, people did not know what to believe and what to disregard about the virus again.

However, this time, unlike in the 1970s when the media dependency postulations were made, it was not only the conventional mass media in operation; the social media was well and truly alive. Social media without exaggeration played a great role in the global fight against the pandemic; arguably, positive and negative roles. Several studies such as Wong, Ho, Olusanya, Antonini, and Lyness (2020) and Idiong, Umoren and Udonquak (2022) have underlined the importance of social media in the fight against the pandemic. While Abbas *et al.* (2021) and Ekezie1 and Bosah (2021) submitted that social media played a negative role in the fight against the pandemic. However, Obi-Ani, Anikwenze and Isiani (2020) in Nigeria, González-Padilla and Tortolero-Blanco (2020) and Venegas-Vera, Colbert and Lerma (2020) said it played both positive and negative roles in United States of America in Spain respectively. The diverse views and findings notwithstanding, the obvious fact remains: social media was central to the fight against the pandemic.

### **Statement of the Research Problem**

Just like every other war, the fight against the COVID-19 pandemic has been fought in phases. Globally, the war is now at the vaccination stage. International health organisations, governments at all levels, non-governmental organisations, multinational corporations and even individual have all been focused to produce, procure, distribute vaccines to all parts of the world in other to make the world, COVID-19 free. Interesting these global efforts to eradicate the virus through vaccination have been meet with stiff opposition. The opposition might not be unconnected to the series of conspiracy theories and fake news that were broadcast during the peak of the pandemic across various social media platforms. Many prominent Nigerians with huge followership (online and offline) were among the theorist. To this end, it is imperative to ask: To what extent have the conspiracy theories about the COVID-19, influenced the response to vaccination campaigns in Nigeria? This is the broad objective of the study.

### **Research Objectives**

- i. To find out the frequency of exposure to COVID-19 conspiracy theories on social media during the peak of the pandemic.
- ii. To discover the influence of the conspiracy theories on the response to COVID-19 pandemic vaccination campaigns.

### **Research Questions**

- i. What was the frequency of exposure to COVID-19 conspiracy theories on social media during the peak of the pandemic?
- ii. What is the influence of the conspiracy theories on the response to COVID-19 pandemic vaccination campaigns?

## **REVIEW OF RELATED LITERATURE**

### **Conspiracy Theories, COVID-19 and social media**

In any discourse on conspiracy theories, there are two major concepts. The first is conspiracy; the second is theory. A conspiracy refers to an act involving two or more persons, working secretly to obtain some goals usually understood with negative implications. Douglas, Uscinski, Sutton, and Cichocka, *et al.* (2019) submit that “conspiracies typically attempt to usurp political or economic power, violate rights, infringe upon established agreements, withhold vital secrets, or alter bedrock institutions” (p. 4). On the other hand, the word theory comes from a Greek verb meaning “contemplate”. Though scholars disagree on the finer points of theory, all seem to agree on a basic definition: theory is a description of a phenomenon and the interactions of its variables that are used to attempt to explain or predict (Thomas, 2017). It refers to plausible or scientifically acceptable general principle or body of principles offered to explain phenomena.

In relation, a conspiracy theory is an attempt to explain harmful or tragic events as the result of the actions of a small powerful group. Such explanations reject the accepted narrative surrounding those events; indeed, the official version may be seen as further proof of the conspiracy (Reid, 2021). Axelsen and Emberland (2020) define conspiracy theories as “explanations that describe the secret and wicked plans and actions of a powerful group of conspirators as the most important cause of an event or state of affairs” (p.1). Conspiracy theories increase in prevalence in periods of widespread anxiety, uncertainty, or hardship, as during wars and economic depressions and in the aftermath of natural disasters like tsunamis, earthquakes, and pandemics (Reid, 2021). It be recalled that there was palpable fear and anxiety following the outbreak of COVID-19 pandemic in 2020.

Although conspiracy theories are by no means limited to extreme political groups, they are often central to extreme ideologies and may radicalise followers (Axelsen and Emberland, 2020). However, even when conspiracy theories are highly unlikely to be true as observed following the outbreak of COVID-19 pandemic, they have an impact on important life dimensions such as health, interpersonal relationships, and safety. This impact is rooted in the subjective reality of belief (van Prooijen and Douglas, 2018). It is a form of psychological indoctrination, arrest and incapacitation. The theories blur, blend and bend the audience perception of reality. Conspiracy theories most times often result in negative consequences. Although, it must be accepted that it could also lead to positive outcomes. However, that is always the exception and not the rule.

Evidently, while COVID-19 was spreading aggressively and rapidly across the globe, many societies equally witnessed the spread of other viral phenomena like misinformation, conspiracy theories, and general mass suspicions about what was really going on (Coninck, Thomas, Koen, Leen, and Grégoire, *et al.*, 2021). It was against the background of rampaging fake news, misinformation, false alarm and conspiracy theories and the sheer havoc that these misconceptions were posing against the global fight to curtail the pandemic that the Director-General of the World Health Organisation warned that the world is not just fighting an epidemic. “We are fighting an infodemic. Fake news spreads faster and more easily than this virus and is just as dangerous. That is why we are also working with search and media companies like Facebook and others to counter the spread of rumours and misinformation. We call on all governments, companies and news organisations to work with us to sound the appropriate level of alarm, without fanning the flames of hysteria” (WHO, 2020).

By definition, infodemics according to WHO, are an excessive amount of information about a problem, which makes it difficult to identify a solution. They can spread misinformation, disinformation and rumours during a health emergency. Infodemics can hamper an effective public health response and create confusion and distrust among people (The United Nations Department of Global Communications, 2020). The Internet in general and the social media in particular provided ample breeding ground for the infodemic to thrive. Admittedly, social media and the

Internet are filled with conspiracy theories. These theories range from highly implausible in light of logic or scientific knowledge. Example, chemtrail conspiracy theories; flat-earth conspiracy theories to theoretically possible or even plausible; to the allegations that secret service agencies routinely violate privacy laws (Axelsen and Emberland, 2020). However, the pandemic raised it to another level never experienced before in the history of humankind.

For instance, at the peak of the pandemic, a series of conspiracy theories made the rounds about the causes, effect and origin of the virus. First in no particular order, it was alleged that the virus is caused by 5G cellular technology. According to Dangi, Lalwani, Choudhary, You and Pau (2021), 5G is the fifth generation of wireless technology and it offers three different services for end user like Extreme mobile broadband (eMBB). It offers high-speed internet connectivity, greater bandwidth, moderate latency, UltraHD streaming videos, virtual reality and augmented reality (AR/VR) media, and many more. However, there have been global reservations about the technology. The BBC reported that allegations that 5G could have health implications were not new. Moreover, conspiracy theories linking 5G with COVID-19 went viral during peak of the first wave (BBC News, 2020).

Second, another group of theorist advanced the course that Bill Gates, an American business magnate, computer programmer and philanthropist uses the virus to enslave humanity by enforcing a global vaccination. The *Consumer News and Business Channel* reported that the billionaire Microsoft co-founder and White House advisor Anthony Fauci, the country's top infectious diseases expert, had been frequent targets for baseless COVID-19 conspiracy theories, including claims that falsely link the pair to the virus' origins in some way or another. Others have falsely claimed that Gates planned to use COVID-19 vaccines to implant monitoring microchips in billions of people (CBNC, 2021). Furthermore, there was the angle of unbelief about the virus as well. A survey found out in May 2020, that a lot of people believed to some extent that the virus is a hoax (BBC News, 2020).

Third, there was the religious spectrum to the conspiracy as well. Religious leaders exploited the vulnerability of their followers to render unsubstantiated and unproven assertions about the virus. In Nigeria it was more pronounced due to the societal status of the religious leaders involved. Chris Oyakhilome, the founder and president of LoveWorld Incorporated, also known as Christ Embassy views of the virus were the most pronounced. He stated: "I have said before, what killed people in Wuhan, China was not the virus, it was the 5G. If you say it is not, tell us how you discovered yours. This is the reality. That is what killed them. I told you, what the world is dealing with right now is not a virus. The problem is not a virus. This is the biggest deception in the world. It's not a virus" (The *Premium Times*, 2020). This statement generated a lot of reactions in Nigeria and across the globe.

The debate about the veracity of the statement was intense on the mass media. With the world in a lockdown as parts of effort to contain the spread of the virus, online interactions and discussions

increased exponentially during the period as well. Social media provided a means of escapism from the harsh reality of the lockdown depending on individual's needs and interest. More so, social media and the Internet are filled with conspiracy theories in every normal sense (Axelsen and Emberland, 2020). And as can be imagined, social media took the spread of the COVID-19 conspiracy theories to another level. Worse-off, the inability of the layman to sieve authentic information from an avalanche of half-truths and false information available on social media networks during the peak of the pandemic was major propellant of the conspiracy theories (Ahmeda and Msughter, 2022).

Without gainsaying, humanity has witnessed numerous outbreaks of pandemics. But arguably, no era has seen a concentrated global panic like COVID-19 era, largely due to the spread of myths, fake news and conspiracies amplified through modern new media tools made possible by evolving digital communication technologies like social media (Inobemhe, 2021). As Aondover (2020) submits, outbreak of COVID-19 in Nigeria and indeed globally, spurred a digitalised reaction with people surfing about COVID-19 content to gather information about the virus. Facebook, Instagram, WhatsApp, and Twitter, appeared to be among the prominent platforms consulted by Nigerians to create awareness on COVID-19 in the country. Rothschild and Fischer (2020) corroborate this position with their assertion that social media contributed immensely in the spread of panic among users due to the uncontrollable broadcast of conspiracy theories on the platform.

Thus, according to Ahmeda and Msughter (2022), it is safe to argue that the COVID-19 pandemic exacerbated the fake news problem and there as there were instances of the use of social media to spread fake and conspiracy theories news about the pandemic. Whereas historically, Nigeria has grappled with highly disruptive vaccine hesitancy and refusal resulting from negative rumors and loss of public confidence as Wonodi, Obi-Jeff, Adewumi, Keluo-Udeke and Gur-Arie (2022) observed, it remains to be seen, the extent to which the conspiracy theories about the pandemic has affected or influenced the response to vaccination campaign in the country. This is the gap in literature which the study intends to fulfil. Keeping on hindsight, the failure recorded in 2003 during oral polio vaccine campaign due to rumours of the vaccines containing porcine material and sterilising agents which observers said led to a boycott of polio vaccination in Northern Nigeria.

In a review of related studies, Ahmeda and Msughter (2022) assessed of the spread of fake news of COVID-19 amongst social media users in Kano State, Nigeria. The study sought to investigate the extent to which social media users in Kano State were aware of fake news on COVID-19; to find key areas of COVID-19 on which fake news was spread on social media in Kano State, to find out the factors that influence the spread of fake news on COVID-19 among social media users in Kano State as well as to examine the consequence of the spread of fake news on COVID-19 among social media users in Kano State. Findings from the study showed that a majority of the respondents were aware of fake news on COVID-19 in Kano state. Furthermore, it was found that

social media aided the spread of fake news on COVID-19. The study concluded that the number of people who were exposed to fake news stories on COVID-19 on social media was significantly high in Kano State.

In a qualitative approach, Gambo and Shem (2021) explored the role of social media in the spread of COVID-19 conspiracy theories in Nigeria. Thirty-five participants were sampled, and interviews were conducted to retrieve data from the participants. Findings from the study revealed that there was a prevalence of conspiracy theories that had saturated social media since the outbreak of the COVID-19 pandemic. It was also discovered that ignorance, religious fanaticism, lack of censorship, and insufficient counter information on social media platforms were some of the possible factors that aided the spread of COVID-19 conspiracy theories among Nigerian social media users. Accordingly, the study recommended among other things, need to swiftly curtail the spread of conspiracy theories through consistent dissemination of counter-information by both individuals and government agencies alike to avoid national disintegration.

In Europe, Portugal, Ferreira (2021) examined conspiracy theories in times of the COVID-19 Pandemic: populism, social media and misinformation. The objective of the study was to identify the background and pre-requisites for the belief in misinformation during after the first lockdown in the country. 242 respondents were sampled. The findings from the study revealed that individuals with populist feelings had less trust in institutional strategies to fight the pandemic; privileging social media as a source of information and revealing a greater acceptance of the conspiracy theories on the disease. As a result, the paper recommended that measures be put in place by relevant government agencies and organisations to combat misinformation factors. According to the research, that will assuage and cushion the consequences of the belief in conspiracy theories and risk behaviours associated with such action.

In a cross continental research, De Coninck, Frissen, Matthijs, d'Haenens *et al.*, (2021) investigated how exposure to and trust in information sources, and anxiety and depression, are associated with conspiracy and misinformation beliefs in eight countries/regions (Belgium, Canada, England, Philippines, Hong Kong, New Zealand, United States, Switzerland) during the COVID-19 pandemic. Data was collected in an online survey resulting in a multinational representative sample of 8,806 adult respondents. Findings from the study indicated among other things that greater exposure to traditional mass media is associated with lower conspiracy and misinformation beliefs, while exposure to politicians and digital media and personal contacts are associated with greater conspiracy and misinformation beliefs. Exposure to health experts is associated with lower conspiracy beliefs only. Higher feelings of depression are also associated with greater conspiracy and misinformation beliefs. Nonetheless, relevant group- and country differences were also discovered.

## **THEORETICAL FRAMEWORK**

The study is anchored on two theories of Mass Communication namely: the Two-Step and Technological Determinism theories. First, the Two-Step theory, propounded in 1940 by Paul Lazarsfeld, Benard Berelson and Hazal Gaudet anchors on the importance of opinion holders in society and the central role they play in the opinion and perception formation of their subjects. The theory holds that the media do not operate in a social vacuum but rather on social relationships to trigger action and ideas (Assmah 2011). In relation to this study on COVID-19 conspiracy theories, social media and response to vaccination campaigns, the proponents of these conspiracy theories were influential opinion holders who wield considerable level of influence over the belief systems of their subordinates. Though, it remains to be seen, the extent their opinions have on the response towards COVID-19 vaccination campaigns.

Second is the Technological Determinism theory formulated by Marshal McLuhan in 1964. The theory posits that the media does not only change or alter the environment and perceptions, but the very message it conveys. The basic axiom of the theory states that users of the media and audience learn, feel, think and behave the way they do because of the messages they receive through the current technological devices available to them. In relation to this study on COVID-19 conspiracy theories, social media and response to vaccination campaigns, this theory comes in handy and helps explain the role of new technological invention like social media in the dissemination of the conspiracies and how it influenced the response to vaccination campaigns. As it was established in the literature review, social media was a vital instrument for COVID-19 conspiracy dissemination across the populace.

## **METHODOLOGY**

This study adopted the survey research design. The data for the survey was collected through an online Google questionnaire amongst the residents of Uyo, the capital of Akwa Ibom State, Nigeria. The respondents were aged 18 years and above. Uyo, was chosen for the study because it is the residential area of the elite class in the state. The population of the area was considered knowledgeable enough to provide independent and detached answers on the subject matter. The current population of Uyo is estimated to be 1,265,000 by the National Population Commission. Using Taro Yamane formula for sample size,  $n=N/(1+Ne^2)$  with a sampling error of 0.05, 400 residents of Uyo were sampled. The purposive and available sampling techniques were employed. 7 responses were considered invalid for the research; thus, 393 responses were used for the study. The questionnaire was shared on social media platforms: WhatsApp, Facebook and Telegram. The data collected was analysed using tables and simple percentages.



**DATA PRESENTATION AND ANALYSIS****Table 1: Frequency of Exposure to Conspiracy Theories about COVID-19 on Social Media**

<b>Variables</b>	<b>Frequency</b>	<b>Percentage</b>
Very Often	179	45.6
Often	141	35.9
Rarely	46	11.7
Never	27	6.8
<b>Total</b>	<b>393</b>	<b>100</b>

*Source: Field Survey 2024*

Table 1 above reveals that a significant section of the population were exposed to the conspiracy theories about COVID-19 on social media platforms. This data implies that social media has made fake news ubiquitous; everyone at some points, through social media platforms is exposed to fake news about any subject matter.

**Table 2: Influence of the Conspiracy Theories on Social Media on the Response to COVID-19 Vaccination Campaigns**

<b>Variables</b>	<b>Frequency</b>	<b>Percentage</b>
Yes	108	27.5
No	152	38.8
Indifferent	99	25.2
Would Prefer Not To Say	34	8.7
<b>Total</b>	<b>393</b>	<b>100</b>

*Source: Field Survey 2024*

Table 2 above indicates that a majority of the respondents were not swayed or influenced by the fake news on social media regarding their decision to accept or reject the COVID-19 vaccines. It invariably points to the limited effect of social media in the respondent's decision making mechanism.

**DISCUSSION OF FINDINGS**

Table 1 provides the answer to the question on the frequency of exposure to conspiracy theories about COVID-19 on social media. 179 (45.6%) and 141 (35.9%) of the respondents stated they were very often and often, respectively, exposed to these conspiracy theories. Nonetheless, 46 (11.7%) and 27 (6.8%) respondents said they were rarely and never exposed to such news items on their social media platforms. Several studies have recorded similar findings about the omnipresence of fake news about COVID-19 on various social media platforms which gave birth to the concept of infodemic. Gambo and Shem (2021), discovered that ignorance, religious fanaticism, lack of censorship, and insufficient counter information on social media platforms were

some of the possible factors that aided the spread of COVID-19 conspiracy theories among Nigerian social media users. Similarly, Ahmeda and Msughter (2022) disclosed that a majority of the respondents in a study were aware of fake news on COVID-19 in Kano state, Nigeria.

On the other hand, Ferreira (2021) discovered mistrust in institutional strategies to fight the pandemic in Portugal while crediting social media as a source of information but without denial of the existence of the conspiracy theories on the disease. His finding agreed with Idiong, Umoren and Udonquak (2022) who discovered that social media played a positive role in the fight against the COVID-19 in Nigeria and thus, their respondents subscribed to full and unrestricted use of social media for health information and communication in any eventuality of future pandemic. Whereas, Rothschild and Fischer (2020) is of the opinion that social media contributed immensely in the spread of panic through fake news among users due to the uncontrollable broadcast of conspiracy theories on the platform.

Table 2 reveals that there is no significant relationship or influence between exposure to the conspiracy theories on social media and the corresponding response to COVID-19 vaccination campaigns. 152 (38.8%) said the exposure to the fake news did not affect their decision making about the taking vaccines while 99 (25.2%) said they were indifferent about the exposure and its influence. This finding is in contrast to the technological determinism theory of the mass media which this study draws its strength from. According to the theory, users of the media and audience learn, feel, think and behave the way they do because of the messages they receive through the current technological devices available to them. However, from this study, the reverse of the tenets of the theory is the case. The exposure to conspiracy theories on social media did not have a significant bearing on the decision-making mechanisms of the respondents.

In addition, 108 (27.5%) respondents alluded to the influence of the exposure on their decision making. This finding, albeit insignificant lends credence to the technological determinism theory which underpins this study. Furthermore, the two-step theory of the media comes to fusion here. The theory holds that opinion holders in society play a central role play in the opinion and perception formation of their subjects. And arguably, it rightly applies in this case where a section of the respondents were influenced by the various conspiracy theories which were most often emanating from opinion leaders and highly respected members of society who wield considerable influence in the decision making processes of the respondents.

## **CONCLUSION**

The researcher discovered that a significant section of the population was exposed to a series of conspiracy theories and fake news about the origin, causes, impact and solution about COVID-19 on various social media platforms. However, this exposure did not significantly affect or influence

the decision making of the respondents on the acceptance or otherwise of the COVID-19 vaccines. As a result of these findings, the following the recommendations are made:

1. Government at all levels should, as a matter of urgent importance ensure that media literacy is promoted and made compulsory from secondary school levels and beyond. A media literate population will be of immersed benefit to society as it will help address the issues of fake news as it is currently bedevilling society.
2. Media houses, citizen journalists, social media influencers and opinion leaders in society should double check their facts and ensure their news items on social media platforms are not fake news or propaganda as well as misleading.
3. Government at all levels; multinational agencies and non-governmental organisations should undertake media campaigns to disabuse the minds of the members of the public against the series of conspiracy theories they may have been exposed to. This will help to rekindle the interest of the members of the public towards the vaccination campaigns by highlighting the importance of inoculation to society at large.
4. Erring members of the public including media houses, social media influencers, opinion leaders, religious leaders etc. who post unverified, fake news ridden in conspiracy theories should be prosecuted legally. This will serve as a deterrent to others who harbour such sinister motives.

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