Public Perception of Social Media Usage in the Prevention and Control of COVID-19 Pandemic in Awka Metropolis, Nigeria

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Abstract
Social media are assumed to be the major sources of trusted information, and misinformation about the COVID-19 pandemic. Therefore, this study aimed at examining the perception of the public of social media usage in the prevention and control of the COVID-19 pandemic in Awka Metropolis of Anambra State. Its theoretical base is the Health Belief Model (HBM). The population of the study was 167,738, and the Creative Research Systems Calculator was used to determine the sample size of 383. Questionnaire was utilised as the instrument for collecting data. Some of the key findings of the study show that 56.03% of the residents of Awka reported that social media are very effective in disseminating Coronavirus/COVID-19 information. Respondents held that they mostly access Coronavirus/COVID-19 messages via various social media platforms such as WhatsApp, Telegram, Instagram, YouTube, Twitter, and Facebook. Also, 35.34% of the respondents reported that, to a great extent, they access Coronavirus/COVID-19 messages via social media. Based on these findings, it was recommended, amongst others, that having realised the critical functions of social media in combating the scourge of Coronavirus/COVID-19, the government and all stakeholders should deploy all available social media platforms that are hitherto not being used, to more effectively prevent and control the disease.

Keywords: *Social Media, Prevention, Control, Coronavirus/COVID-19*

Introduction

Coronavirus, and the disease it causes, COVID-19, is a pandemic. It came like a thief in the night, not giving a hint about its visit, hence catching the whole world unawares. Apart from the health hazards it poses, every aspect of human life has been affected at varying degrees, posturing different challenges to human existence. It brought socio-economic uncertainties to nations and disrupted their economic foundations. Coronavirus, a microscopic parasite 10,000 times smaller than a grain of salt, subdued civilisation and brought in its wings COVID-19, which attacks the physical body as well as "the cultural foundations of our lives, the toolbox of community and connectivity that is for the human what claws and teeth are for the tiger," according to Davis (2020, p.1).

It brought about a total shutdown of nations' economies; schools, places of worship, markets and restaurants, banks and offices, industries and factories, hotels and recreational parks, and many other business places were closed down completely at one point or the other. Also, clubs, gymnasiums, cinemas, and tourist cum entertainment centres were deserted. There were restrictions on international and inter-state travels to curb the spread of COVID-19. People who suspect they may have the disease because they have come in contact with people who have tested positive for it went into (self-) quarantine while those who tested positive for the disease went into (self) isolation. Majority also observed 'shelter in place.' People were virtually confined to their homes. Curfews were imposed in nations, and movements were restricted.

The International Monetary Fund (IMF) says the global economy now faces its worst downturn since the Great Depression, and that world leaders committed about $19.5 billion to tackle the COVID-19 pandemic and its effects on the people (Ujah, 2020). Oxfam International has also warned that half a billion people could be pushed into poverty as a result of the unfolding Covid-19 crisis (World Economic Forum, 2020). Due to the pandemic, about 235 million people are expected to be in need of humanitarian aid in 2021, hence Mark Lowcock, UN humanitarian aid chief, declares that, "the rich world can now see the light at the end of the tunnel. The same is not true in the poorest countries" (*Premium Times*, 2021). According to Al Omian (2020), the pandemic exposed the world system's major flaws, which might lead to its reformation. She believes that it will lead to a shift to highly automated manufacturing, which will save energy, decrease production costs, and enhance quality, resulting in less human working hours and, in turn, improved health, allowing companies to continue without interruption.

Apart from the emergence of more tech startups, a reduction in business travel, and increased

confidence in technology, Al Omian (2020) believes that the pandemic will force governments to implement e-services across the region, including in areas such as courts, immigration and passport services, ministries, and other various institutions; adding that "governments, business leaders, and companies" will all benefit from the pandemic (p. 6).

At present, there are more than six drug makers around the world that are conducting advanced clinical trials, each with tens of thousands of participants, and several expect to know if their COVID-19 vaccines work and are safe by the end of this year **(***Premium Times*, 2020). However, some people believe that the COVID-19 and the lockdown that followed had some positive sides, one of such is Chris Kwakpovwe, a Pastor, who opines that his ministry was launched into the On-line world due to the lockdown. Kwakpovwe (2012) admits that, "I had never liked online or social media but now it is one of our power transfer media" (p. 16).

On the other hand, the mass media, ably represented by social media, would remain the epicenter of the COVID-19 discourse. It was through the media that the news of its existence first broke, and it is through them everything being said and done about it are being relayed all over the world. Glase (2020) affirms that news organisations are giving dedicated coverage to the COVID-19, with reporters practically on the front lines of the crisis because "a world without local journalists means a world without important life-saving information" (p.1), especially now that people need information about how to stay safe.

Davis (2020) observes that, for the first time in history, "all of humanity has come together, informed by the unprecedented reach of digital technology, focused on the same existential threat, consumed by the same fears and uncertainties, eagerly anticipating the same, as yet unrealized, promises of medical science" (p.1). Guanah, Okowa-Nwaebi, and Dalung (2018) assert that the media are key sources of health information for the general public, and that it has always aided in boosting citizen awareness in order to achieve long-term behaviour change that improves people's health. According to the trio, the media is "helping enormously in the battle against illnesses and other health-related problems, with regular reporting of health issues that enlighten audience members and make them more aware of health issues that affect them" (p.159-160).

Special mention must be made of social media, because it is through them information spread faster, as enabled by the Internet. This is made possible with the possession of the mobile phone connected to the Internet, which enables its owner to receive or disseminate information globally. It is in recognition of the important role the social media play in health communication that made

health bodies like World Health Organisation (WHO), Centers for Disease Control and Prevention (CDC), Nigerian Centre for Disease Control (NCDC), and others to have dedicated websites and social media platforms through which they disseminate information, issue statements, and give guidelines on COVID-19 and other health issues, and advice citizens not to share "just any forwarded message", but to share only authentic information coming through medical experts (Img, 2020). Recently, the Nigeria Centre for Disease Control (NCDC) launched a digital platform called Surveillance Outbreak Response Management Analysis System (SORMAS) being used to communicate directly to individuals to ensure speedy delivery of COVID-19 results in the Federal Capital Territory, Abuja.

Moreover, social media perform the same functions as traditional media, though in slightly different ways, dimensions, and extent. Social media are always agog and saturated with various views about Coronavirus because it is highly infectious and highly transmissible, and has no known cure for now. They make the Coronavirus/COVID-19 stories to dominate and get an equal share of news headlines across the world.

No doubt, COVID-19 pandemic brought about the increase of digital and social media use. Globally, social media users make up 3.8 billion of the estimated 4.5 billion Internet users, this figure is about 85% of the total Internet users. Since the surge of the pandemic, social media use rose from 75 to 82 minutes per day for each person (Kermani & Faust, 2021). Social distancing and lockdowns that were put in place in most countries made people to sort for other means to connect and communicate with one another. For instance, according to Kermani & Faust, 2021), as of 2020, TikTok has 1.5 billion users worldwide, but its number of downloads increased by more than 100 million between the last quarter of 2019 and the first quarter of 2020. Also, "Instalive, the Instagram feature for live video chat, surged as an alternative digital video format across the world" (p. 192). Also, about 15.8% of Nigeria's population are now active on social media (Nairametrics, 2021). That was not the case before the outbreak of the Coronavirus.

Given the different opinions about the positive and negative effects of the use of social media in the dissemination of information, this paper intended to highlight their usage in the prevention and control of COVID-19, especially now that "Coronavirus will be present 'forever in some form or another'" (BBC News, 2020, p.1). In other words, this study looked at the role of social media in mitigating the rate of spread of COVID-19 and flattening the curve of morbidity.

Statement of the problem

The effect of the novel COVID-19 on the collective psyche of the world is

unprecedented in human history. The situation is worsened with different conspiracy theories, misinformation, fake news, and disinformation about the disease which are majorly peddled through social media. Social media are saturated with a lot of suggested "miracle cures" and prescriptions (for the disease) that has not been scientifically tested. These are being propagated by both qualified and unqualified medical personnel. Therefore, the need arose to critically examine the role of social media in the Covid-19 discourse, hence this paper is written.

Objectives of the Study

The study sought to:

1. determine how Awka residents perceive the use of social media in communicating and disseminating Coronavirus/ COVID-19 information;
2. evaluate the extent to which the residents of Awka metropolis are accessing Coronavirus/COVID-19 messages via social media; and
3. ascertain the social media channels through which residents of Awka metropolis mostly access Coronavirus/COVID-19 messages.

Theoretical Base

This paper finds support in the Health Belief Model (HBM). A group of United States Public health service social psychologists developed this model in the 1950s while wanting to explain why so few people were participating in programmes to prevent and detect diseases, and it was updated in the 1980s (Boskey, 2020). Although it was meant to model the adoption of preventive health behaviours in the United States, today, it has been successfully adapted to fit diverse cultural and topical contexts (Griffin, 2012; Scarinci, Bandura, Hidalgo & Cherrington, 2012).

It is a theoretical model that can be used to guide health promotion and disease prevention programs, and it is considered to be an ideal explanatory framework for communication research (Jones, Jensen, Scherr, Brown, & Weaver, 2016). According to Rural Health Information Hub (2020), and Glanz and Bishop (2010), it is one of the most widely applied theories for understanding health behaviours.

As studies expanded on this theory, researchers concluded that that six main constructs will predict health behaviour or influence people's decisions about whether to take action to prevent, screen for, and control illness; Champion and Skinner (2008) mentions them as: risk susceptibility, risk severity, benefits to action, barriers to action, self-efficacy, and cues to action.

Explained further, the HBM postulates that people are bound to take action to prevent an illness if they feel they are vulnerable to an illness or disease (perceived susceptibility), if they believe it may have grieve repercussions (perceived severity), if

they believe that an action taken by them can douse the vulnerability or bring about other positive outcomes (perceived benefits), if they perceive few negative attributes related to the health action (perceived barriers), "self-efficacy", which is, if they believe that one can successfully complete the behaviour of interest despite considered barriers (Boskey, 2020; Rosenstock, Strecher, & Becker, 1988; Rural Health Information Hub, 2020), and if they believe that specific cues, such as factors in one's environment, can impact the final action one takes (Champion & Skinner, 2008). In other words, the Health Belief Model (HBM) posits that messages will achieve optimal behaviour change if they successfully target perceived barriers, benefits, self-efficacy, and threat (Jones, et. al, 2016).

In considering HBM for implementation, Rural Health Information Hub (2020) identifies five key action-related components that can be used to design or adapt health promotion or disease prevention programmes. They are:

i. Gathering information by conducting health needs assessments and other efforts to determine who is at risk and the population(s) that should be targeted.
ii. Conveying the consequences of the health issues associated with risk behaviors clearly and unambiguously to understand perceived severity.
iii. Communicating to the target population the steps that are involved in taking the recommended action and highlighting the benefits to action.
iv. Assisting in identifying and reducing barriers to action.
v. Demonstrating actions through skill development activities and providing the support that enhances self-efficacy and the likelihood of successful behavior changes.

Social media effectively play the foregoing roles. Therefore, the relevance of this theory to this study lies in the fact that it adequately addresses the main components of this study, which are the prevention and control of Coronavirus/COVOD-19 pandemic. It outlines the reasons that can make people consider the change of behaviour towards a health issue, in this case, COVID-19.

Conceptualisation of Coronavirus/COVID-19

Coronavirus (SARS-CoV-2) first broke out in Wuhan City, Hubei Province of China in December 2019 when patients had a form of respiratory sickness that presented itself like pneumonia but the cause couldn't be identified. It is for this reason the former President of the United States of America, Donald Trump, called it "Chinese Virus"; he also referred to it as "Kung-fu Virus"

and "China Plague" (Kwakpovwe, 2020, p. 83; Yusuf, 2020).

The disease was initially called various names like "Pneumonia of Unknown Aetiology", "2019 novel coronavirus" or "2019-nCoV". However, according to the Centers for Disease Control and Prevention- CDC (2020), on February 11, 2020, the World Health Organisation announced an official name for the disease that is causing the 2019 novel coronavirus outbreak as 'coronavirus disease 2019', abbreviated as COVID-19. In COVID-19, 'CO' stands for 'corona,' 'VI' for 'virus,' and 'D' for the disease. '19' stands for the year 2019.

Coronavirus, as it is known, is a severe acute respiratory syndrome (SARS) type of virus, more appropriately named SARS-CoV-2, to denote that it is a novel virus. It affects the upper respiratory tract (nose, throat, airways, and lungs). The virus that causes COVID-19 is easily transmissible from person to person, mainly through respiratory droplets produced when an infected person coughs, sneezes, or talks or when one has contact with contaminated surfaces, objects, or items of personal use of an infected person (CDC, 2020; Deji, 2020; Img, 2020), but it hardly survives for long outside a host (human). Spread is said to be more likely when people are within about 6 feet close contact with one another (CDC, 2020).

In symptomatic patients, it starts with symptoms of common cold and might aggravate to cough, fever, and difficulty with breathing. It could even lead to respiratory failure, altered consciousness, kidney failure, and of course, death. CDC (2020) affirms that people with COVID-19 have reported a wide range of symptoms – from mild symptoms to severe illness, and those symptoms may appear 2-14 days after exposure to the virus.

According to Img (2020), the mortality rate ranges between 2-3%. Risk of death is only higher in older people (above age of 60 years) and people with pre-existing health conditions. It is on record that almost 80% of people have mild symptoms, and recover from the disease in 2 weeks and that most of the symptoms can be treated with timely medical care (John Hopkins Center for System Science and Engineering, as cited in Img, 2020). Nigeria recorded its first fatality from the virus about 24 days after its index case, an Italian national, was confirmed on 28 February 2020 (Onyeji, 2020).

To reduce the chances of being infected or spreading COVID-19, WHO (2020) recommends taking some simple precautions like:

a. Regularly and thoroughly clean your hands with an alcohol-based hand rub (Sanitizer) or wash them with soap and water.
b. Maintain at least 1 metre (3 feet) distance between yourself and others.
c. Avoid going to crowded places.
d. Avoid touching eyes, nose, and mouth.

e. Make sure you, and the people around you, follow good respiratory hygiene.
f. Dispose of used tissue immediately and wash your hands.
g. Stay home and self-isolate even with minor symptoms such as cough, headache, mild fever until you recover. Have someone bring you supplies. If you need to leave your house, wear a mask to avoid infecting others.
h. If you have a fever, cough, and difficulty breathing, seek medical attention, but call by telephone in advance if possible and follow the directions of your local health authority.
i. Keep up to date on the latest information from trusted sources, such as WHO or your local and national health authorities.

Science and Health Communication

Health is defined by Agudosy (2007b, p.6) as "a state whereby one is not perturbed by either physical, or spiritual (mental illness), or by injury of any kind." Also, Agudosy (2007a) cites Ogah (2006) as defining health as "the ability of man to pursue and actualise his life ambitions, the ability of man to eat when he is hungry, the ability of man to travel or move about freely when he feels like (sic) so and even the ability of man to make love when he has urge or drive" (p.1). While considering health communication, an option is to first look at science communication since health is science oriented; both of them have a nexus.

Hitherto, Guanah (2018) has defined communication as "the movement of information from Person/Medium/Point A to another Person/Medium/Point B through a dedicated channel to bring about a desired effect or reaction" […] while mass communication is reaching out to a mass of population through various media (mass media)" (p.390). On their part, Gamble and Gamble (1999), note that mass communication has "the capacity to reach 'simultaneously' many thousands of people who are not related to the sender […] and finally, unlike one-to-one communication, it produces only minimal, delayed feedback to its senders" (p. 478).

Referring to science communication, Fischhoff (2013) states that, "effective science communication informs people about the benefits, risks, and other costs of their decisions, thereby allowing them to make sound choices" (p. 14033). Also, Fischhoff and Scheufele (2014) state that in the interface between science and society, some puzzles manifest themselves and better science communication becomes critical to reconciling the puzzles. They reason thus, "better communication to the public and policymakers can help scientists send clearer signals regarding accomplishment, promises, and uncertainties of their work. Better communication … can provide scientists with clearer signals regarding the public's concerns and

science's role in addressing them" (p. 13583).

Health communication involves using different communication means to create awareness, and to pass across health messages for the attainment of better health conditions by the recipients of the information. Through health communication, people get informed about new medical discoveries, existing diseases, various health challenges, the danger they pose, and how to prevent, and tackle them necessary. Health communication, therefore, involves the study and the use of communication strategies to inform and influence individuals and community decisions that enhance healthy living (Healthypeople, 2014).

The mass media, comprising of the radio, television, newspapers, magazines, and social media, are at the forefront of the dissemination of health information (communication), and they do so through different means. Hence, Atakiti and Ojomo (2015) declare that "the role of the mass media is a vital one such that without the media, it would be impossible for health promoters and stakeholders to disseminate information, as well as, monitor and coordinate activities of the various countries on health issues" (p.170). Supporting this assertion, Ohaja (2003, p. 88) maintains that "the mass media function within each of the social systems to foster interaction, exchanges sustenance of the society" (p.88). Further, McDevitt (1996, p. 270) cites O'Keefe and Reed to note that: 'At best, the media are "effective at building citizen awareness of an issue" but more complex attitudinal or behavioural change requires "more direct forms of citizen contact and intervention" (p.215).

Virtual communication is a technology that works perfectly with social media, and during this COVID-19 pandemic, through virtual communication apps like Zoom, conferences, meetings, and learning by students take place without them gathering together in the same place. This has gone a long way to reduce the spread of the disease, and prevent many more people from contracting it.

The role of the media in combating the COVID-19 pandemic is sacrosanct, hence while receiving the "Distinguished Nigerian Ambassador for COVID-19" award for beginning an early campaign on steps to be taken to avert the spread of coronavirus pandemic, Theodore Ekechi, former Commissioner for Information in Imo State, notes that he was encouraged by some journalists who helped him to spread the message as well as parted him on the back for the campaign, saying that "Many people agreed that I said the truth. Many journalists that I called at that time encouraged me and helped to disseminate the message.... Even when the coronavirus took the centre stage in the country, it's the journalists that helped me to spread the message" (Agbakwuru, 2020, p.3).

How Social Media can be used to prevention and control Coronavirus/ COVID-19

The use of social media platforms has increased over the years, and they can be very effective tools for health communications, as they function to promote increased awareness about health issues like COVID-19. There are different social media platforms, they include Facebook, Instagram, WhatsApp, Twitter, Snapchat, Blogs, SoundCloud, Hulkshare, 2go, Zoom, GooglePlus, Facebook Messenger, Tancent, Telegram, Tik Tok, Skype, LinkedIn, Pinterest, Evernote, YouTube, and many more. According to Pepitone (2010), social media are one such technology that has seen increased usage as an information source. Due to media convergence, which has been made possible by the Internet, social media messages can be communicated through text, pictures, and music, having the ability to combine the functions of the newspaper, television, and radio at the same time. Therefore, Dudo and Besley (2016) identified five scientists evaluated specific communication objectives to include: Informing the public about science, exciting the public about science, strengthening the public's trust about science, tailoring messages about science, and, defending science from misinformation.

During this period of COVID-19 pandemic, people are turning to the media to get answers on how to navigate through as per what would happen to the most vulnerable people, how they can handle emergency cases and manage suspected patients and so on. Social media are handy in the gathering and dissemination of crucial timely information about the pandemic to both victims and medical care givers. They provide platforms for interaction among people about COVID-19. Through social media, awareness about the virus is created; details of how COVID-19 can spread are reported, and guidelines on how to prevent contracting the virus are given by medical experts. That is to say, they offer solutions apart from just spreading vital information about the pandemic. Smailhodzic, Hooijsma, Boonstra, and Langley (2016) affirm that social media can be used for health-related reasons and relationships between patients with healthcare professionals.

Social media were used recently by the Nigeria Centre for Disease Control to upload its new handbook entitled "COVID-19 Patient's Handbook for Home-based Care in Nigeria". The contents of the book include: What is Coronavirus Disease 2019? What is Home-based Care? What is Home-based Isolation? Why Home-based Isolation and Care? Who is Eligible for Home-based Care? Who is not eligible for Home-based Care? What Medicines can be Used During Home-based Care? What should be done if Symptoms Worsen? Infection Prevention Control for Households Members During Home-based Care; When Can I Exit Home-based

Isolation? Caregiver's Health; Home-based Techniques to Manage Your Cough; Home-based Techniques to Manage Your Breathing; Home-based Techniques to Clear Your Chest, and Home-based Techniques to Manage Breathlessness (Nigeria Centre for Disease Control- NCDC, 2021).

Social media functions are akin to that of the traditional medial, to wit, information, surveillance, entertainment, and education, among others. Under these basic functions of the media, the issue of the role of social media in the prevention and control of the Coronavirus/COVID-19 can be robustly discussed. No doubt, COVID-19 exposed the inadequacies in the healthcare systems of nations like Nigeria, and social media have been effective fora through which citizens have been calling out their various governments to imsprove and provide critical health infrastructure and services in their different domains.

Being social creatures, the mental health of humans can be affected by the Covid-19 pandemic, and this can bring about spikes in depression, post-traumatic stress disorder (PTSD), substance use, domestic violence, and a broad range of other issues (Fox, 2020). The snag here is that these can be experienced by those who contracted the disease, those who had close friends and relations that contracted it, and those who did not contract it at all. However, social media help to combat depression that may come up due to loneliness and isolation by replacing physical interactions, both in and out of the workplace for people of all categories. This they achieve by keeping people busy with their work while using these media, and also entertaining them through music, videos, etc.

In the aspect of entertainment, they have been the companion of most people, especially during the lockdown period. Social media largely disseminate human interest stories, and such stories are needed now so that the human side of this crisis can be understood better. Since people were confined to their homes to control and prevent the spread of COVID-19, watching online videos and other entertaining programmes was not an option. Most of these entertaining online content filled the days of the people with laughter, especially while watching comedy strips which were mostly shared through the WhatsApp platform. Just as the Bible reports in Proverbs 17:22 that a merry heart does good like medicine to the spirit, soul, and body (Maxwell, 1982), renowned neurosurgeon, Avery Jackson, attests to the fact that recent research proves that laughter, in conjunction with exercise, repairs the body far beyond anything one can do in the natural. Enumerating five surprising health benefits of laughter for the spirit, soul, and body, Avery Jackson, emphasizes that laughter increases blood flow, reduces pain, prevents disease, improves emotional health, and strengthens one's spirit (Kenneth Copeland Ministries, 2019).

Recently, Nigeria's Federal Ministry of Industry, Trade, and Investment (FMITI) gave the Federal Competition and Consumer Protection Commission (FCCPC) an award for outstanding performance during the COVID-19 pandemic for successfully sanctioning the groups, individuals, suppliers, and retailers of protective apparels like face masks, hand gloves, and hand sanitizers who hoarded these items and sold them at higher prices the moment Nigeria recorded its first case of coronavirus. FCCPC efforts also made Jumia Nigeria (online sales platform) to delist 390 products belonging to 168 sellers of hand sanitisers and face masks from its online platform. According to Adegboyega (2020), the commission also arraigned four major pharmacies and supermarkets at the Federal High Court, Abuja, for allegedly taking advantage of the COVID-19 outbreak in the country to increase the prices of key hygiene products, contrary to law. These feats were achieved, courtesy of the multiple social media posts received by the Commission's COVID-19 response team through a dedicated platform through which it received information and complaints or intelligence. Here, social media are performing their surveillance function.

In performing the information dissemination function, social media are creating awareness on the virus, to ensure that people present themselves for the test, and if they test positive for coronavirus, they are isolated and cared for. Through social media, the government carries out sensitisation and grassroots mobilisation, and risk communication to bring about engagement to the COVID-19 response. Social media also give update on the development of researches for vaccines and drugs to combat COVID-19. Via social media, medical personnel in different countries can compare notes and share ideas on how to tackle challenging health issues like COVID-19.

The comment feature embedded in social media platforms avail consumers of online information the opportunity to air their views on various issues, and in this case about Coronavirus/COVID-19. Guanah (2020) opines that "the comment feature serves as the oxygen and window that enriches the freedom of expression of citizens" (p.78). The fact that social media are fast in spreading information to a large audience very easily is what citizens exploit to comment on COVID-19 pandemic. Through this section, which serves as strategic platforms for galvanising diverse ideas, citizens ask questions to get clarifications about the disease from health professionals and other users of the platforms that have knowledgeable ideas to share.

Social media are also at the forefront, championing the call for hospitals to be well-equipped, that enough testing gadgets and respirators be provided, and that the needed and appropriate personal protective equipment - PPE (e.g., gowns, gloves, NIOSH-certified disposable N95

respirator, eye protection) be made available for health workers.

Social media also play the role of education by teaching citizens how to prevent contracting COVID-19, and what to do if they notice the symptoms of the disease. There has been occasions where online panels comprising different medical personnel and care givers were convened, and these lead to sharing of vital information and tips about the pandemic and how the personnel can handle different situations in their various domains. Also, social media are used to educate citizens against getting involved in self-medication, which is dangerous to their health, especially now that there are various claims of efficacious herbal solutions and traditional medicine, and citizens tend to be tilting towards using them due to what Abati (2017) refers to as the increasing cost of healthcare in the country, restriction of access to regular hospitals, and "the out-of-pocket mode of health financing in the country" (p.2). Recently, Namibia's Health Minister, Kalumbi Shangula, warned the country's citizens against the use of elephant dung, traditionally steamed and inhaled as a cure for the flu, to ward off the coronavirus. Okogba (2020) reports that many Namibians have turned to natural remedies in the hope of protecting themselves against COVID-19.

There is a need for citizens to be well informed and educated about Coronavirus/COVID-19, since "wrong knowledge is as good as lack of knowledge (Kwakpovwe, 2020, p. 91), and "real knowledge is to know the extent of one's ignorance" (Anonymous, as cited in Kwapkovwe, 2020, p. 91). Hence, the educational role of social media is quite germane and relevant here. It is also through the education function of social media that citizens are likewise taught how to wash their hands frequently, and properly disinfect their environment to lower the risk of spreading the disease.

They educate by telling citizens to stay hydrated and get adequate rest; to take their medicines as and when advised by the doctor**;** visit a doctor if condition worsens or does not get better with time; don't sneeze or cough into your hands; use a tissue and throw it away immediately, or sneeze in the inner side of your elbow; don't travel or visit crowded places if you're sick; do wear a mask if you're sick and also if you are taking care of someone with the symptoms; if you feel unwell, seek medical attention; if you have a fever, cough, or difficulty breathing, stay indoors, and call healthcare professionals and follow their advice (Img, 2020).

Through social media, citizens are not only enjoined to observe all Nigerian Centre for Disease Control (NCDC) COVID-19 Protocols, which include: hand washing with soap in running water, use of alcohol-based hand sanitizer, compulsory use of face shield/mask, and maintaining social/physical distancing, but they are taught how to go about achieving these. The demonstrations of how to

'stay safe' videos, made by medical experts and health workers, are circulated through various social media outlets.

In this period of vaccination against Covid-19, social media stand as the most effective platforms for creating awareness and mobilising people en masse to participate in the programme, especially with the numerous conspiracy theories in the public domain which will make some people to be reluctant to take the vaccination. Kotziagkiaouridis and Bedi (2021) observe that the rapidity with which scientists developed COVID-19 vaccines exacerbated existing mistrust proliferated by social media. According to them, a study conducted by Pew Research Center, in the United States of America alone, shows that a whopping 80% of respondents report seeing fake news about the pandemic.

There has been a lot of disinformation and misinformation about the coronavirus vaccine that YouTube has to ban coronavirus vaccine misinformation, Recent studies indicate that Facebook is the most used platform for sharing misinformation overall (Kotziagkiaouridis & Bedi, 2021). It is only through social media that misinformation about the virus and the vaccine can be effectively combated. This is so, especially now that the COVID-19 vaccine resistant social media following has ballooned to at least 58 million followers globally on English language vaccine resistant channels alone (Kotziagkiaouridis & Bedi, 2021).

In summary, social media are very efficient in mobilising citizens to participate in community mitigation actions against Coronavirus/COVID-19 by engaging individuals, communities, schools, businesses, healthcare organisations, and all relevant stakeholders.

Research Method

The survey method was adopted for this study because it is a potent method of measuring data relating to demographics, attitude, opinion, and perception when it comes to generating quantitative data.

The population of this study is the entire residents of Awka metropolis. According to the World Population Review (2020), the population of Awka is 167,738. To determine the sample size, the Creative Research System Calculator (1982) at 95% level of acceptance (confidence level) and 5% confidence interval (margin of error) was used. Statistically, this gave a sample size of 383.

The formula of the Sample Size Calculator is spelt out thus:

Sample Size

$$SS = \frac{Z^2 x(p) x(1-p)}{C^2}$$

Where:

Z = Z value (e.g. 1.96 for 95% confidence level)

p = percentage picking a choice, expressed as decimal (e.g. .5 used for sample size needed)

c = confidence interval, expressed as decimal (e.g. 5)

Correction for Finite Population

$$new\ ss = ss\ /\ 1 + \frac{ss - 1}{pop}$$

Where: pop = population

$$ss = \frac{Z^2 x(p) x(1-p)}{C^2}$$

$$ss = \frac{1.96^2 x(0.5) x(1-0.5)}{0.05^2}$$

$$ss = \frac{3.8416 x(0.5) x(0.5)}{0.0025}$$

$$ss = \frac{0.9624}{0.0025}$$

$$ss = 384.16$$

Correction for Finite Population

$$new\ ss = ss\ /\ 1 + \frac{ss - 1}{pop}$$

$$new\ ss = ss\ /\ 1 + \frac{ss - 1}{pop}$$

Break into parts

Part (a)

$$\frac{ss - 1}{pop}$$

$$\frac{384.16 - 1}{167738}$$

$$ans = 0.0023$$

Part (b)

1 + 0.0023

$$ans = 1.0023$$

Part (c)

$$new\ ss = \frac{ss}{1.0023}$$

$$new\ ss = \frac{384.16}{1.0023}$$

$new\ ss = 383.28$, approximately 383.

The non-proportionate quota sampling and purposive sampling techniques were adopted. The researcher, using the non-proportionate quota sampling technique, divided the sample size (383) by the number of wards (12) in Awka South Local Government Area, where Awka as the capital city is situated, i.e. 383/12=31.92, approximately 31. After the division, 31 persons were purposively selected from each ward.

A questionnaire was used as the research instrument. It was designed to evaluate the residents' perception of the usage of social media for the prevention and control of Coronavirus/COVOD-19. The 10-item questionnaire dealt with respondents' perception of the effectiveness of the social media in disseminating information about the disease, their frequency in assessing information about the diseases through the social media, the social media platforms they use for this purpose, among others. These items adequately met the study objectives.

The respondents were made of: male (70%), and 30% were females. Likewise, 20% were between the age brackets of 18-23. Also, 25% were between the age brackets of 24-29. Similarly, 27% were between the age brackets of 30-35, and 28% were between the age brackets of 36 and above. Also, 43% possessed a Postgraduate degree, 31% had a first degree while 20% earned a Post Primary school certificate, and 6% had Primary school certificate. Respondents' marital status indicated that 22% were single while 78% were married. Concerning their occupation, 53% were Government Employed,

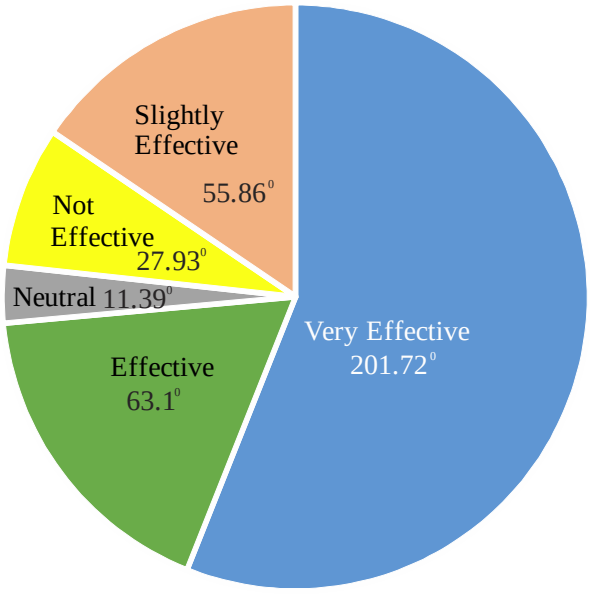
10% were Unemployed while 37% were Private Sector Employed.

The validated questionnaire was administered to the respondents to collect data. Cronbach's alpha reliability coefficients for the constructs ranged from 0.70 to 0.87. The response rate was 98.5%. A total of 383 copies of the questionnaire were administered to the respondents, but only 348 (90%) were returned and found useful for this study while 35 (10%) were not returned.

Data Presentation and Analysis

Analysis of data was done using Pie-Charts, degrees, and simple percentages.

Figure 1: *Pie Chart showing perception of Awka residents on the use of social media in communicating and disseminating Coronavirus/COVID-19 information*



KEY: Very Effective, Effective, Neutral, Not Effective, Slightly Effective

Scale: 1cm = 360°.

From Figure 1, it can be seen that most (56.03% i.e. 201.72°) of the residents of Awka metropolis believe strongly in the efficacy of social media in disseminating and receiving information during the Coronavirus/COVID-19 pandemic.

Figure 2: *Extent at which the residents of Awka metropolis are accessing Coronavirus/COVID-19 messages via social media*

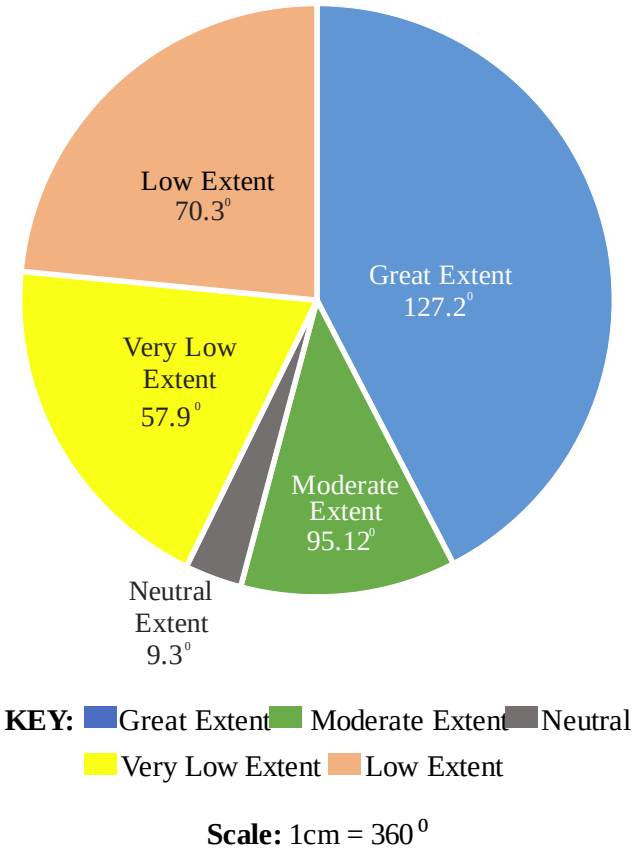
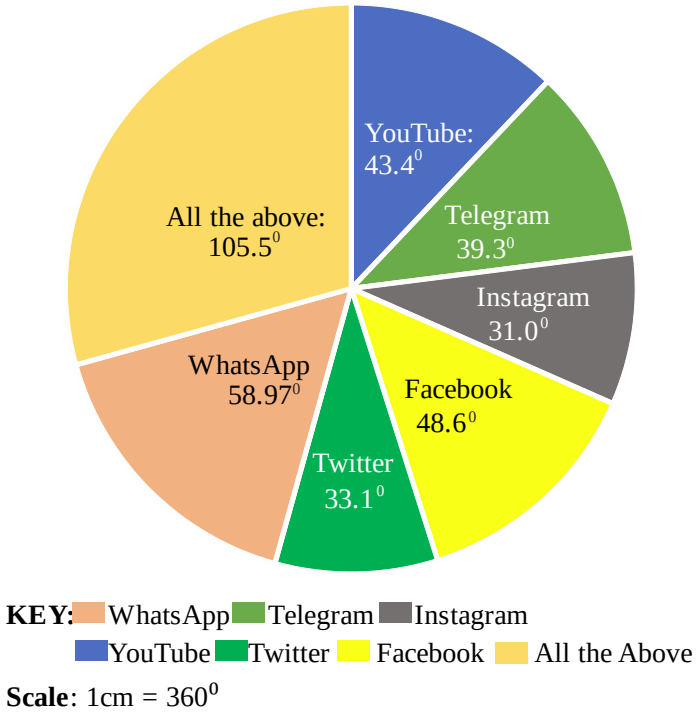


Figure 2 shows that the majority (35.34% i.e. 127.24°) of the respondents agree to a great extent that they do access Coronavirus/COVID-19 messages via social media. This implies that the respondents are adequately keeping themselves abreast with information about Coronavirus/COVID-19 messages using social media.

Figure 3: *The social media channels through which residents of Awka metropolis mostly access Coronavirus/COVID-19 messages*



The data in Figure 3 show that the respondents use various social media platforms to access information about Coronavirus/COVID-19. These revealed that on individual basis WhatsApp 16.38% (58.97°) was the most used of them, followed by Facebook 13.50% (48.62°), YouTube 12.07% (43.45°), Telegram 10.92% (39.31°), Twitter 9.20% (33.10°), and Instagram 8.62% (31.03°). It is also visible that 29.31% (105.52°) of the respondents access all the platforms. This most have been possible because they possess the mobile phone which is quite handy and can be conveniently used at any point in time or place.

Discussion of Findings

The first finding of this study revealed that the majority (56.03%) of the residents of Awka believe that social media are very effective in disseminating Coronavirus/COVID-19 information. It points out that social media are very veritable means of enhancing good and safe health through their inevitable functions in society. This is despite Rafat, Emadzadeh and Ahmadi (2013) referring to Mehrabani as mentioning "how social media can move on to the destruction of the health and social well-being to reproduce" (p. 388),

especially through fake health and medical news.

However, one has to be very careful because of the ease in the use of social media to spread fake/false news and disseminate disinformation and misinformation. Glase (2020) harangues that one of the most insidious parts of the COVID-19 crisis is the continued spread of misinformation about cures and prevention through social media platforms. They have also been spreading the conspiracy theory that 5G towers can aid the spread of coronavirus. Due to the search for information about the Covid-19 pandemic, people are exposed to multiple information, some of which are false, especially on social media. This accentuates the fact that fake news about COVID-19, how it came about, and how to prevent or cure it are everywhere. Hence Pomeroy and Court (2020) want to know how to combat the virus of misinformation since there is no vaccine for the 'infodemic'. The duo cite Mark Little who has sets out potential solutions to the infodemic to haven said that, "I've started to see the spread of misinformation as a global health crisis" (p.2). Aral (2020) posits that, with the rise of fake news, fake video, and fake audio, the world is hovering on the brink of the end of reality where what is real can hardly be separated from what is fake. He notes that fake/false news was 70 percent more likely to be retweeted than the truth.

In an AFP report (as cited in Vanguard, 2020a), a study was carried out by Cornell University; it was partly funded by Bill and Melinda Gates Foundation. The leader of the study, Sara Evanega, a director of the Cornell Alliance for Science, said "If people are misled by unscientific and unsubstantiated claims about the disease, they may be less likely to observe official guidance and thus risk spreading the virus" (p.2). Hence, Twitter removed a "misleading" tweet downplaying the efficacy of masks posted by a top coronavirus adviser to former President Donald Trump, Dr. Scott Atlas. According to Reuters (as cited in Vanguard, 2020b), Twitter Inc. removed the tweet, saying it violated its misleading information policy on COVID-19, which targets statements that have been confirmed to be false or misleading by subject-matter experts. Also, YouTube has been banning videos that spread misinformation about COVID-19 vaccines that claim the vaccines could cause death or infertility. Hitherto, YouTube had removed videos that dispute the transmission of COVID-19 and promote medically unsubstantiated methods of treatment (Culliford & Dave, 2020).

It is in the spirit of the fight against fake news about science and health issues that made Dudo and Besley (2016) embark on a study that demonstrated that scientists mostly prioritise communication fashioned to defend science from misinformation and enlighten the public about science

and hence "least prioritises communication that seeks to build trust and establish resonance with the public" (p.1).

Also, 35.34 % of the respondents reported that, to a great extent, they access Coronavirus/COVID-19 messages via social media. This may be because social media share relevant information that can help people make decisions on how to go about the COVID-19 pandemic in real-time. This allusion is supported by Fischhoff and Scheufele (2014) who declare that the tasks before science communication include determining what people already know about science, in this case, about COVID-19, designing communicated messages to fill the critical gaps (between what people know and need to know), and assessing the sufficiency of those communications. These are the roles social media are essentially playing at present in combating and preventing the spread of COVID-19**.**

According to the Director General, National Information Technology Development Agency (NITDA), Kashifu Inuwa latest statistics indicate that over 124 million Nigerians are using the Internet in Nigeria (Dangida, 2021). This puts the social media in a very strategic position through which to pass information and get feedbacks from the populace. It is in recognition of the importance of social media in the prevention, eradication and cure of COVID that made the Speaker of Nigeria`s House of Representatives, Femi Gbajabiamila, to put in place free campus Wi-Fi service initiative in tertiary institutions like the University of Lagos (UNILAG), Akoka Campus; Lagos State University (LASU), Ojo; Lagos State Polytechnic, Ikorodu Campus; Adeniran Ogunsanya College of Education (AOCOED), Ijanikin; Michael Otedola College of Education (MOCOPED), Epe, and the Yaba College of Technology (YABATECH). This is also in a bid to ease learning amid the ravaging coronavirus COVID-19 pandemic and with a view to building a stronger education sector (Nwabughiogu, 2021).

Thirdly, respondents held that they mostly access Coronavirus/ COVID-19 messages via various social media platforms thus: WhatsApp 16.38% (58.97°), Facebook 13.50% (48.62°), YouTube 12.07% (43.45°), Telegram 10.92% (39.31°), Twitter 9.20% (33.10°), and Instagram 8.62% (31.03°). This finding tallies with the report of 'Digital Report 2021' which found that WhatsApp is the most active social media platform in Nigeria with over 93% of users. The second is Facebook at 86.2% while YouTube is third at 81.6% (Nairametrics, 2021).

This finding also justifies the use Twitter was put into during the first wave of the pandemic. It is on record that in Brazil, Álvaro Justen, founder of the non-profit organisation known as "Brasil.IO", tweeted a call for volunteers to help with collecting data manually from all the 27 federative

units in Brazil when it was discovered that there was lack of structured data about COVID-19. Füssy (2021) attests that volunteers answered the tweet, and the group spent one whole weekend manually tabulating hundreds of epidemiological bulletins from state health departments since the beginning of the pandemic. He adds that, "all communication is made through an open-source chat platform (Rocket.Chat), while publicization of updates and new insights appear on Twitter and in a Telegram group" (p. 243).

The importance of social media, as represented by Twitter in the fight against COVID-19, are further recognised when it was reported that Nigeria's COVID-19 campaign was weakened as the World Health Organisation in Nigeria, the Nigerian Centre for Disease Control, the National Primary Health Care Development Agency, the Federal Ministry of Health and other agencies involved in the vaccine campaign stopped tweeting information on COVID-19 on Twitter when the Federal Government suspended the social media platform (Akinkuotu, 2021).

Also in Argentina, different groups used WhatsApp to coordinate the provision of provide food and clothing during the pandemic for thousands of families who live in poverty. Tarullo (2021) reports that these groups used their WhatsApp contacts and network to promote their food drives to prepare meals that they delivered once a week. Teachers likewise used WhatsApp as a "channel for communicating with families and accompanying students in what the government has called a "Pedagogical Continuity Plan" - as most students do not have access to the internet or technological devices" (p. 256).

What this implies is that the use of social media as it concerns COVID-19 is not restricted to only a medium, but extends to the use of various aspects of social media. No wonder then the subscriptions to broadband/high-speed Internet services in Nigeria have increased significantly to a peak of 82.7 million as at the end of August, 2020. This fact was disclosed by the Executive Vice Chairman of the Nigerian Communications Commission (NCC), Prof. Umar Garba Danbatta (Oyibo, 2020).

Also, this finding tallies with the dictates of the Health Belief Model (HBM) adopted for this study. According to the HBM, six main constructs would determine if people will decide to take action to prevent, screen for, and control an illness or disease, which Champion and Skinner (2008) mention as risk susceptibility, risk severity, benefits to action, barriers to action, self-efficacy, and cues to action. However, the step that precedes any of these constructs is getting to know about the illness or disease hence the respondents access Coronavirus/COVID-19 messages via various social media platforms before a decision is made. Furthermore, apart

from social media being involved in the six factors mentioned above, they are also very effective in health promotion or disease prevention programmes. They are useful in gathering information, conveying the consequences of the health issues, communicating to the target population, and providing data that can assist health workers.

Conclusion

The resurgence of COVID-19 incidents, especially in Europe and America, is likely indicating that the disease will be around for a very long time. If that is the case, it also means that social media will continue to be relevant in the discourse of the pandemic because they will help to put people in check so as not to get infected, or infect others. This they can do by constantly reminding people to stay at home and get tested if they have symptoms, wash and sanitize their hands and surfaces after possible contamination, sneeze into tissues, wear face mask always, not to touch their eyes, nose, or mouth unless their hands are clean, to observe social distancing, to get vaccinated, and to avoid poorly ventilated indoor areas where people are many.

Social media can also help to combat the incidents of COVID-19 by ensuring that these precautions become part and parcel of people's lifestyles. This is possible because the majority own phones they move around with, and social media platforms on them can be constantly used to remind them of these precautionary habits they have to imbibe.

Also, Cheney (2020) cites Bells as saying that most decisions about COVID-19 which led to the lockdown in African nations were taken without data, but with social media, enough data can be collated to help the government and stakeholders in taking and making decisions concerning the pandemic. This will make nations like Nigeria to avoid in future the situation where they would impose lockdowns without data to support their decision as the case was during lockdowns that took place in early 2020 when the disease first surfaced. Bell (as cited in Cheney, 2020) says that predictions of the catastrophic outcome of COVID-19 were published without supporting data. Social media are so crucial in the Prevention and Control of COVID-19 Pandemic in Nigeria that the Nigeria Centre for Disease Control (NCDC) had to launch a #COVID19NigeriaStories blog to document Nigeria's response to the Coronavirus (COVID-19) pandemic in order to document the process and inform the public (Vanguard, 2020c).

The fact that most people perceive social media as being very effective in disseminating Coronavirus/COVID-19 information, and they agree to a great extent that they access Coronavirus/COVID-19 messages via social media, indicate that they are largely sharing information that are accurate and consistent for public engagement in COVID-19 prevention advocacy.

Recommendations

1. Having realised the critical functions of social media in combating the scourge of Coronavirus/COVID-19, the government and all stakeholders should deploy all available social media platforms that are hitherto not being used, to more effectively prevent and control the disease.
2. Governments, especially in Africa, should glean and analyse reliable data from social media where various health experts have robustly espoused and delivered position papers on COVID-19 to develop evidence-based decisions.
3. To guide against fake, misleading, and false information about COVID-19 on social media, social media users must ensure that the sources of their information on COVID-19 are credible by fact-checking and verifying any of them before posting or acting on them.
4. The federal government and other stakeholders should invest more in social media efforts to combat the COVID-19 pandemic by putting in place laws and policies that will support the use of social media to spread important information about COVID-19 instead of attempting to enact laws that will muzzle the use of social media by citizens.

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