A Review of COVID-19 Pandemic: Myths, Misconceptions, and Role of Media Education in Nigeria

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Authors’ contributions

This work was carried out in collaboration among all authors. Authors EDI and PTN designed the study, performed the statistical analysis, wrote the protocol and wrote the first draft of the manuscript. All Authors managed the analyses of the study. Author PTN managed the literature searches. All authors read and approved the final manuscript.

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ABSTRACT

The COVID-19 pandemic has affected Nigeria and many countries of the world in recent times. It has introduced some level of new concepts and social phenomena in many countries. The interference of myths and misconceptions in the mitigation of the epidemics in Nigeria calls for attention. Many Nigerians harbor some level of myth or misconceptions about COVID-19. Lack of confidence in the integrity of government, security agents, health officers among many other factors is the popular opinion that has contributed to the spread of misconceptions of the COVID-19 pandemic by many Nigerians. The mass media through programs, activities, campaigns, information dissemination etc, educates and detect to the society what is important. There is need
for synergism between the private, public, local and international organization for the masses to receive the proper education that will debunk the harmful myths and misconceptions among many Nigerians.

Keywords: COVID-19; pandemic; myths; misconceptions; media; education; Nigeria.

1. INTRODUCTION

Nigeria the most populous black nations of the world has an average population of over 200 million persons. Her high fertility rate and cultural values have largely influenced the population by a growth rate to 2.7% annually [1,2]. COVID-19 pandemic; an epidemics that is affecting Nigeria and many countries of the world, has brought some new concepts and social phenomena. On the 6th day of February 2020, an Italian in Lagos state tested positive for the Coronavirus and became the first COVID-19 official case recorded in the country [2]. Coronavirus Disease (COVID-19), from the family of Coronavirus, is a contagious respiratory illness transmitted through the eyes, nose, and mouth, via droplets from coughs and sneezes, close contact with an infected person and contaminated surfaces [3]. Despite the report from the Nigeria Centre for Disease Control (NCDC) and other recognized health institutions in the country, there exist some myths and misconception arising from the assessments of many Nigerians about the pandemic [4]. The history of myths and misconceptions about health and diseases in the Nigeria society remains historical as culture and religion have gone a long way to influence the Nigerian people. Besides the COVID-19 pandemic other diseases like Cancer, Sickle cell disease (SCD), Ebola and some previously endemic diseases within Nigerians and other African countries also had some history of myths and misconceptions [5,6,7,8,9].

Nigeria has approximately forty-six million students that were affected by the covid-19 pandemic with a large percentage of teachers and students not adequately equipped with the requisite skill to sustain the learning processes during the lockdown [10]. Over time, research has proven that Mass media education and awareness creation is a very reliable tool to help combat the spread of epidemics in Nigeria [11,12,13]. Poor education and detailed awareness of diseases has been a major challenge before the pandemic. The aftermath has led to the wrong decision by the masses and sufferers of certain diseases in Nigeria [14]. The existence of unrealistic myths and misconceptions about the pandemic resulted in some level of poor compliance to the NCDC set out rules to combat the pandemic [15]. Since research has proven that myths and misconceptions have previously mitigated the eradication of certain disease within Nigeria. It is not out of place to say that existence of myths and misconceptions about COVID-19 may have contributed to the slow in the eradication of the disease within the region [5,16]. The Table 1 is a representation of the number of suspected cases, confirmed cases and the deaths recorded since the incidence of the COVID-19 in Nigeria.

Table 1. Representation of suspected, confirmed and the deaths associated with the COVID-19 pandemic in Nigeria

<table>
<thead>
<tr>
<th>Number of Weeks</th>
<th>Month</th>
<th>Suspected cases</th>
<th>Confirmed cases</th>
<th>Deaths</th>
<th>Number of states</th>
</tr>
</thead>
<tbody>
<tr>
<td>13th</td>
<td>March</td>
<td>2,168</td>
<td>323</td>
<td>10</td>
<td>19</td>
</tr>
<tr>
<td>17th</td>
<td>April</td>
<td>27,078</td>
<td>4,399</td>
<td>143</td>
<td>--</td>
</tr>
<tr>
<td>22nd</td>
<td>May</td>
<td>94,323</td>
<td>16,086</td>
<td>420</td>
<td>35</td>
</tr>
<tr>
<td>26th</td>
<td>June</td>
<td>183,294</td>
<td>32,558</td>
<td>740</td>
<td>36</td>
</tr>
<tr>
<td>30th</td>
<td>July</td>
<td>319,851</td>
<td>46,577</td>
<td>945</td>
<td>36</td>
</tr>
<tr>
<td>35th</td>
<td>August</td>
<td>442,075</td>
<td>56,256</td>
<td>1,082</td>
<td>36</td>
</tr>
<tr>
<td>39th</td>
<td>September</td>
<td>507,006</td>
<td>58,324</td>
<td>1,108</td>
<td>36</td>
</tr>
</tbody>
</table>

Source: [17]
2. METHODOLOGY

This paper was written based on review and analysis of several scholarly research works published in journals, text books, online news papers and relevant websites where information on the pandemic, myths, misconceptions and media awareness activities are disseminated. The major content of the Literature search strategy is represented in Table 2.

3. SYMPTOMS AND MODE OF TRANSMISSION OF THE NOVEL CORONAVIRUS (COVID-19) IN NIGERIA

COVID-19 is the acronym for a novel strain of the Coronavirus that was first discovered in Wuhan, China. It is an epidemic which became pandemic in the year 2020. The virus was unknown before the outbreak of the epidemic at Wuhan, in December 2019 [18]. Coronaviruses are a large family of viruses which may cause illness in animals or humans. In humans, several species are known to cause respiratory infections ranging from the common cold to more severe diseases such as Middle East Respiratory Syndrome (MERS) and Severe Acute Respiratory Syndrome (SARS). The common symptoms and the mode of transmission of the disease are not different from other countries with experience of the pandemic. The common symptoms of COVID-19 are fever, dry cough and tiredness. Other less common symptoms which affect some patients include aches and pains, nasal congestion, headache, conjunctivitis, sore throat, diarrhea, loss of taste or smell or rash in skin etc [19,2,20,21]. The contagion could lead to severe respiratory problems or death, particularly among the elderly and persons with underlying chronic illnesses [3]. The main mode of transmission of COVID-19 is human to human by droplets which are generated during coughing, talking or sneezing and are then inhaled by a healthy individual. Asymptomatic carriers of the virus are at major risk of being super-spreaders of the disease, as they may not develop symptoms of the disease [22,3,20,21]. The virus can be indirectly transmitted to a person when they land on surfaces that are touched by a healthy individual who may then touch their nose, mouth or eyes allowing the virus entry into the body [3,20,21]. Transmission can be broken by putting in precautionary safety and control measures. Also, remedial measures of early detection, isolation and treatment are necessary to prevent further complications [23]. The virus has an incubation period of approximately one to fourteen days [20,21]. Individuals who developed symptoms were taken to government-designated medical centres for test and treatment. The chart below is a representation of the report of suspected and confirmed cases from the Nigeria Centre for Disease Control (NCDC).

4. MYTHS AND MISCONCEPTIONS ABOUT COVID-19 IN THE NIGERIAN SOCIETY

Despite the effort of the government, researchers and health workers towards curbing the spread of the disease, there are misconceptions held by some people about COVID-19 which is a challenge affecting the control of the disease [4]. Various factors ranging from cultural, educational and religious backgrounds influence the belief system of people over the years. Despite the civilization in our societies, these factors still hold a firm grip over the people who believe in them. Misconceptions over various subject matters on health have been in existence before the onset of COVID-19. Its impact is very evident in society and affects the compliance or non-compliance of people to precautionary measures to reduce the disease spread [6,7,24,9]. The influence, of
culture, religious beliefs, traditions, customs and rituals in the development of myths and misconceptions cannot be overemphasized [25,5,8]. A high proportion of people believe in the efficacy of modern medicine because of their educational status. On the contrary, a sizeable number despite the influence of education still have their conception within religio-magical belief [26].

Many Nigerians believe that COVID-19 is not real [4]. Social media has been very effective in disseminating these ideas to other individuals causing harm to the health care system. There exists so much confusion among many Nigerians especially the rural dwellers. Limited information about the pandemic has promoted certain misconceptions among the vast majority of rural dwellers in Nigeria [4]. Some of the urban dwellers dare to say that drinking alcohol protects one against COVID-19. Gargling with salt and warm water will kill COVID-19 and the practice of swallowing of antibiotics will protect one from the disease [27]. There were deadly misconceptions like Spraying and introducing bleach into the body will provide immunity against the virus. Some persons propagated that eating garlic prevents one from being infected by COVID-19. That the 5G mobile networks spread COVID-19 was also a misconception among some society elites. Some also promoted the idea that taking Vitamin C and D, keeping the throat moist will prevents one from the disease. Many also believed that because of the high temperature in Nigeria the virus cannot survive the harshness of the climate to cause disease. Some category believed that Africans have a strong immune system to withstand the virus. Some persons including few elites in the society believed the conspiracy theories of COVID-19 as a bio-weapon which has been engineered by international agencies and that it was engineered by scientists from China. Many social media users promoted the idea that this pandemic is a population control scheme etc. [28,29,16].

5. MYTHS AND MISCONCEPTIONS OF COVID-19 IN NIGERIANS; PAST, PRESENT AND PROSPECTIVE CHALLENGES

The spread of unsubstantiated COVID-19 news content termed as misinformation has contributed to the spread of the disease [30]. The extent to which public health education has influenced positive behavioural changes among Nigerians remains vague. Coronavirus restrictions have required security forces across the globe to support lockdown measures and enforce emergency laws. Security forces consequently were accused of using excessive force to impose COVID-19 lockdown measures, spreading fear and mistrust. The government adopted enforcement strategies through deployment of police, military and paramilitary
organizations. However, this development in Nigeria, also generated many problems due to the brutality of citizens by some security officers [2]. According to BBC News National Human Right Commission confirmed that members of the public rang their hotline and sent videos evident to the killing of people. In its report, it was stated that law enforcers killed 18 people in Nigeria since lockdown from 8 separate incidents of extrajudicial killings.

Many faith-based organizations and political rallies in recent times have continued to defy the directives on social distancing and use of face mask in public gatherings and social events. COVID-19 misinformation and rumours are masking other credible healthy behaviours like hand-washing, social distancing, use of face mask and promoting incorrect practices that will potentially increase the virus spread. A majority of the masses who care to use the facemask do that inappropriately by, exposing their nose; placing it on their jaw rather than having it cover their mouth and nose region as illustrated in Fig. 2 [31,32].

Also, people are engaging in self-medication with their refusal to visit health facilities which might lead to complication of their health conditions and render the effort of the health system abortive. The lack of government transparency and poor reporting by the media has hampered the measures that could have been taken by health care systems globally to deal with the COVID-19 threat [33]. There were numerous cases of chloroquine overdose in Nigeria after alleged news from the media claimed its efficacy for the treatment of COVID-19 [34]. The use of unapproved products to treat COVID-19 can put people in danger, giving a false sense of security and distracting them from cardinal anti COVID-19 health practices, increase self-medication and the risk to patient safety [35,36].

Poor education of people and unclear information influenced by many factors like ambiguous words and language barrier also contributed to the gross misconception about the disease. People’s perception or interpretation of disease outbreaks influences their health care-seeking behaviour [37]. Some Nigerians, due to superstitions and
ignorance of the science behind the infection, prefer only to pray and use anointing oils, talisman, herbs or rituals to prevent contracting and spreading the virus [38]. Misconceptions contribute to the gross non-compliance and loss of trust of the masses in the government, health systems and other trustworthy organizations. Medical conspiracy theories can lead to mistrust of government and health professionals that can impact people’s health care-seeking behaviour [39].

6. THE GOVERNMENT AND MASS MEDIA EDUCATION

Every modern society depends on the mass media for the dissemination of necessary information. The mass media through programs, activities, campaigns, information dissemination etc, educates and detect to the society what is important. The Masses have learnt to trust the mass media with this obligation in every millennial society [40]. There is no doubt; the level of knowledge that an individual has about an infectious disease will determine his/her attitude towards the spread of the practice of preventive measures to stop the spread of the disease [41]. Research has shown that the majority of Nigerians in both urban centres and rural localities are usually aware of pandemic diseases. However many of them especially in the rural communities fail to put up some health modification behaviours due to certain misconception that proliferates due to lack of awareness of the consequence of such negligence [42]. Understanding the various forms of misinformation about COVID-19 and the threat it poses to the general public could be essential for various governments, public health officials as well as the media to design effective information campaigns and other pragmatic interventions [30]. There is an urgent need for thorough rumour surveillance to curb misinformation and proliferation of myths and misconceptions [43]. All media and print houses must ensure that adequate programs are organized to provide the awareness that is needed by the masses. To prevent or bring to a halt the transmission of COVID-19 virus, the masses need to be well informed about the disease and how it spreads. By providing deeper insights on the linkages between the concepts, a better understanding could also help guide interventions targeted at reducing false beliefs on COVID-19 [44].

The use of evidence-based campaign on mass media could help ameliorate the myths and misconception among the populace [15]. There is need for the government and media houses to partner with telecommunication companies to offer affordable or free mobile data package for Nigerian students to connect to educative programs from the media houses and online safety practice lessons by school tutors etc. Such educative platforms must be closely supervised to ensure that the level of distrust that has risen by anti-science movements in recent times is replaced with proper education [31].

Having an understanding that the lack of regards for human rights can promote misconception among the masses, the United Nations High Commissioner for Human Rights Michelle Bachelet, warned that countries and governments must be reminded that emergency responses to the Coronavirus must respect people’s fundamental human rights [45,46]. Against this backdrop, there is, therefore, need for educating the general public on the need to avoid human right infringements. The program targeted at educating the law enforcement agencies and the general public on the need to respect human rights should be promoted by the mass media. Health officers should be advised to resist the infringement of non-ethical processes by government functionaries, influential individuals and politicians in the society as the trust in public health officials and the information they provide is essential for the public uptake of preventive strategies to reduce the transmission of COVID 19 [47,48]. Trust is believed to be the main core of hearing, interpreting and responding to public health messages. The government must provide complete information about the pandemic to maintain public trust even when the information is limited. They must never downplay the reality of risk and vulnerabilities to reduce public fears and worries [49].

It is not debatable that the classrooms remains a major means of educating young people especially students. However, before the COVID-19 pandemic, Nigeria has a record of 13,200,000 school-age children that are out of school. This has made the country to have the highest number of out of school children in the world [10,50]. The limited budgetary for education, poverty, gender issues, ethnonreligious factors etc has immensely contributed to the number of out of school children in the country [10]. Besides, the lockdown made all students stay away from
their teacher(s) while it lasted. It became very obvious of the importance for the use of media to educate the vast majority of our students. Mass media education and awareness creation became a very reliable tool to help combat the spread of the epidemics in Nigeria [11,12,13]. It is quite expected that some media houses and broadcasting stations will want to argue that a majority of people have been sensitized on the pandemic. It is however plausible to state that educating and lurching of awareness without an appreciable change in the misconceptions among the vast majority will not be helpful in the control of the pandemic.

7. CONCLUDING REMARKS AND FUTURE PERSPECTIVES

The interference of myths and misconceptions in the mitigation of endemic epidemics is not strange in Nigeria. The vast majority of Nigerians harbours some level of myth or misconceptions about COVID-19. Therefore, It is not out of place to say that the existence of myths and misconceptions about COVID-19 have contributed to the slow in the eradication of the disease within Nigeria [5,16].

The current status of the country’s situation implies that if the issues of distrust on the government, interference from the social media network, fear and stigmatization etc are not carefully addressed, there is possibility of an increase in the number of cases within the country as a vast majority of the masses may not see any logical reason to comply to directives [15]. As research evidence is growing at a faster rate about different aspects of COVID-19, there is need to be aware of the potential facts about the illness and not to believe in any facts which have no authentic evidence or claim by an international Health Body [51]. Following the onset of COVID 19, it is tempting to mitigate the upholding of sanctions against perpetrators of corruption. The pandemic should not be seen as an opportunity to take advantage to abuse the access to power/authority for private gain. In this unique circumstance, the government should ensures that the penalty for corruption is not ignored [52]. It is important that health and education sectors of the country are given quick attention. There is a dear need for the upgrading of our education system. It is high time that the government should invest in technologies that enhance the learning processes of students. Health officers should be protected from vulnerability to influence in their practice as it will contribute to building trust and confidence of the populace in the system. Nigeria's current national health systems need to be equipped with the requisite facilities and manpower expertise, as the current status cannot effectively respond to the growing needs of already infected patients requiring admission into intensive care units [53]. An awareness campaign should be frequent, very educative and also targeted towards debunking myths and misconceptions that will make the masses to be hearers without putting up health modification behaviours.

DISCLAIMER

The products used for this research are commonly and predominantly use products in our area of research and country. There is absolutely no conflict of interest between the authors and producers of the products because we do not intend to use these products as an avenue for any litigation but for the advancement of knowledge. Also, the research was not funded by the producing company rather it was funded by personal efforts of the authors.

CONSENT

It is not applicable.

ETHICAL APPROVAL

It is not applicable.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

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