

**African Indigenous Knowledge System and the Fight Against Covid-19 Pandemic:
Assessing Nigeria's Level of Preparedness**

By

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Introduction

Ever since the outbreak of Corona Virus in a small Chinese province of Wuhan in Hebei Province around December, 2019, the entire world space has known no peace. Popularly known as Severe Acute Respiratory Syndrome (SARS-CoV-2) strain, the disease has proven to be one of the most deadliest history has ever recorded. The worrisome upsurge in the level of infections across the world prompted the World Health Organization to declare the virus, and unequivocally too, that it has become a pandemic. Daily reports of the number of infections of the covid as obtained from various sources points to the fact that a total of 243,547,503 cases have been recorded recently globally (Worldometersinfo, 2021); 4,949,697 persons have died, with a paltry of 220,661,965 recovery cases. Of the total deaths recorded, 46,183,693 covid deaths have been profiled in the United States alone. India has a total of 36,157,608; Brazil 21,697,341; South Africa has recorded 2,745,889, Kenya, 252,395 deaths; Nigeria, 209,960, among others. It should however, be noted here that out of the 193 countries gazetted by the United Nations, only five countries around the Oceania and Pacific Island have no reported cases. For instance, countries such as North Korea, Turkmenistan, Tonga, Tuvalu and Nauru (Koryo, 2021).

It does appear, from the foregoing analysis that Africa generally, and Nigeria in particular, is less vulnerable to infections of the covid virus when compared with other advanced nations of the world. For the benefit of hindsight, it can be recalled that ever since the outbreak of the pandemic, developed countries such as the United States of America, France, Germany, Canada and many others have embarked on research innovations to be able to tackle the virus headlong. This ambitious gesture has given rise to quite a number of outcomes and the subsequent emergence of synthetic covid-19 drugs and/or vaccination namely, Pfizer-BioNTech, Moderna, Johnson & Johnson's Janssen, mRNA, Viral vector, among others. These vaccine jabs, no doubt, have been

in use over a long period since the covid outburst. Although, there have been worldwide protests and resistance over the emergence and administration of the vaccine due largely to a number of conspiracy theories by sceptics, efforts have been intensified to ensure that proper information management and efficient public orientation is strengthened to enable the growing army of infections slow down.

Unfortunately, however, it appears that the rate of responses in taking the vaccines in advanced countries have risen to almost over 50 percent. For instance, United States alone has recorded the administration of about 190 million doses; China, 1.05 billion, India 190 million persons fully vaccinated, and Brazil, 109 million.

According to Adewumi (2021) though covid infections in Africa generally remain abysmally low, the general response to covid vaccination remains at its lowest ebb, with the entire continent having only fairly above 2 percent population fully inoculated. While it can be argued that a vast majority of Africans do not even believe on the existence of the covid pandemic, a good percentage of persons have insisted that the vaccine job are meant to tactically reduce the world population. This incidence has informed the basis for why a large number of persons are now infected all over Africa, whether consciously or unconsciously.

However, Adewumi has averred that the spread of the pandemic in the African continent may not necessarily have any connection with stereotypes and conspiracy theories. To him, Africa needs global solidarity and what he christened “vaccine justice for Africa”. To further buttress his position on the dearth of the covid vaccine in the continent, the African Development Bank president alluded further that:

So far, 14.6 million vaccines have been delivered in Africa... we are way off the mark in terms of getting to 60% of hard immunity, and sadly, I do not see that happening for another year or two at this rate we are going, not until things change (emphasis added) (African Development Bank Group, 2021).

What is very apparent from the above excerpts by Adewumi and the African Development Bank Group is that frantic efforts geared towards stamping out covid-19 in most countries have been the use and application of synthetic medicine. This is seemingly opposed to the therapies that are currently being propagated by African traditional and/or indigenous knowledge system as antidote for effective handling and care of covid-19 patients.

African Indigenous Knowledge System and the Fight against Covid-19

As earlier noted, the sudden eruption of covid-19 with its attendant health risks among patients the world over have been alarming. To be sure, the symptoms of covid-19 patients range from fever, shortness of breath, fatigue, confusion, drowsiness, pneumonia, among others (Guo, Cao, Hong, Tan, Chen, Jin, Tan, Wang & Yan, 2020). It can be said that the risk of infection is higher in elderly patients with underlying health challenges than in young people, which is why associated deaths in minors are far less compared to those experienced by the aged.

Be that as it may, the treatment of the virus has been greatly focused on the general antiviral drugs and other safety measures such as wearing of face masks, isolation of sick patients, avoiding close affinity to sick patients, washing of hands at frequent intervals and all what nots.

To Yang, Islam and Wang (2020) opine that since the outbreak of the pandemic, no one form of anti-viral drugs or medications have been administered for the cure. Thus, while some of these vaccines considered to be repurposed, and under intense laboratory investigations and experimentations, quite a number of indigenous herbs have been formulated.

From the classic works of Zhang, Wu, Zhang, Dang & Peng (2020) several natural compounds from plant materials have been confirmed to be potent or active against the activities of the covid-19 infection. Corroborating the position put forward by Zhang et al about the usefulness of non-synthetic herbs against the covid attacks. Zhang went further to claim that more than 85% of patients in China have been treated of covid-19 virus with what is generally referred to as Traditional Chinese Medicine (TCM) treatment. This is largely responsible for the downward spiral of the volume of infections in China in recent times.

In Africa, quite a number of indigenous plant materials have been used since the outbreak. In their study on preventive practices and complementary medicine against covid-19, Patrick and Youmsi (2020) have identified well over 30 plant species and recipes that have been in use to fight the rampaging scourge of covid-19 in Africa. Furthermore, it can be said that some of the antidotes were composed of not only plant species; but also other essential ingredients such as rock salts, salt, hot water, mentholatum ointment, honey, olive oil, bi carbonate as well as urine extracts from humans. In Africa, the most commonly used plant extracts, aside from other substances takes the form of tree backs, herbs shrubs, trunk, flower, leaf and bulb.

Table 1.1 below shows the application of African indigenous knowledge system for the fight against covid-19.

Table 1.1: showing African indigenous knowledge system for the cure of covid-19

S/N	Name of plant (family name)	Botanical name	Common name	Part of plant used for cure of covid-19	Reported anti-viral effects on patients
1	Amaryllidaceae	Allium sativum	Garlic	Bulb (Herb)	Inhibits effects of virus on bronchitis when taken
2	Amaryllidaceae	Allium cepa	Onion	Bulb (Herb)	Inhalation attacks mild infection at infant stage
3	Asparagaceae	Aloe vera Burm	Aloevera	Leaf (Herb)	Inhibits of multiplication of covid-19 virus
4	Anacardiaceae magnifera Indica	Mangifera Indica	Mango	Leaf (Tree)	Has potency for killing virus in respiratory tracks
5	Bromeliaceae	Ananas Comosus	Pineapple	Fruit (Herb)	Improves rate of severe cough in covid-19 patients
6	Caricaceae	Carica papaya	Paw paw	Bark (Tree)	Active against covid-19 virus
7	Lauraceae	Persea Americana	Avoado tree	Leaf (Tree)	Strongly inhibits activities of virus in patients
8	Nil	Gossypivum arboretum	Cotton	Leaf (Shrub)	Acts against virus activities in patients
9	Moringaceae	Moringa oleifera	Moringa	Leaf (Tree)	Acts as antiviral antidote against covid-19 virus in patients
10	Myrtaceae	Psidiumguajava	Guava	Leaf (Tree)	Anti-viral substance against infection.
11	Nil	Eucalyptus globules	Eucalyptus	Leaf (Tree)	Effective against virus in patients.
12	Zingiberaceae	Zingiber officinale Roscoe	Ginger	Rhizome (Shrub)	Act against virus infection.

Source: Culled from Patrick Valere, et al (2020): Ethnobotany Research Applications.

Table 1.1 above presents a number of African indigenous knowledge system through effective use of herbal plants to combat the dreaded covid-19 pandemic. From the presentation, it can be observed that aside from synthetic vaccines used for the prevention of the virus, these herbal mixtures and plant extracts present potent means of curative healing and prevention.

For instance, Erharuyi, Falodun and Langer (2014) in their earlier studies on the efficacy of some of these medicinal plants claimed that herbal substances such as pawpaw, mango, avocado, ginger, garlic, among others, can be effectively used to treat symptoms associated with covid-19 infection such as fever and gastro-intestinal disorders. As a recipe for cure of the virus, the various traditional institutions and even private individuals alike, have at various times applied the traditional medicinal substances to covid patients through drinking of cooked liquid, chewing, messaging, gagling and so on.

Covid-19 Pandemic and Nigeria's Level of Preparedness: An Assessment

Just like any other political entity around the world, the Nigerian state has been gravitating back and forth in the struggle to mitigate the devastating effects of covid-19. According to Salman (2020) noted that soon after the first sign of the virus was reported in Nigeria in February, 27, 2020, frantic efforts have been in top gear to combat the disease pandemic. First is the establishment of the Nigerian Centre for Disease Control in February 28, 2020; the establishment of the National Emergency Operation Centres designed to track and test all contact persons to victims of covid-19 virus, as well as the activation of the Presidential Task Force on covid-19 three weeks afterwards. However, in spite of the creation of these critical health infrastructures, there appeared to have been no respite from the outset in the management and control of the devastations and number of confirmed cases across the country.

As a result of the growing challenges as to how to contain with the 'new disease', it can be said that it was pretty difficult to vehemently fight against the pandemic given the negligible amount of funding as well as shortage of health facilities. Thus, from the beginning, the total reported cases of covid had risen up to 184 on 2nd of April, 2020, with 1 percent death, 11 percent discharged

cases and 88 per cent of cases receiving medical care in various designated or isolation centres. From empirical statistics, there were a total of 13 states with worse case scenario in terms of infection. They are namely; Lagos (98) cases, Federal Capital Territory (38), Osun state (14), Oyo (8), Akwa Ibom (5), Edo (4), Kaduna (4), Ogun (4), Bauchi (3), Enugu (2), Ekiti state (12), Benue (1) and River state (3) cases. Of the total of 184 confirmed cases at the time, 93 of the patients (representing) (51%) had travel history to high risk countries with escalating rate of infection; while 35 (19%) were people who came in contact with infected relations, doctors on call or other paramedics. Yet again, there were other victims in Nigeria, who as a result of the conspiracy theory supposing that the “virus does not exist”, got caught up with the pandemic due to negligence.

In all of these, a lot of curious minds have wondered whether the Nigerian government has responded, and positively too, in order to tame the tide of the virus. The answer is yes. To a lesser or greater extent, the federal government of Nigeria has been better prepared to tackle the virus, though not without obvious challenges.

From the works of Unah (2020) noted that Nigeria was among the first countries to recognize the risk factors and hence, commence effective planning after a week of reported cases of covid-19 in China. Just like the previous fight against the emergence of diseases such as Ebola, polio maliattis and Lasser fever, the Nigerian government in collaboration with the Nigerian Private Sector Coalition Against Covid-19 have engaged in building formidable synergy to dismantle the pandemic.

Again, it has been reported from various sources that the federal government of Nigeria through the Presidential Task Force on Covid-19 in conjunction with the Federal Ministry of Health, the Centre for Disease Control and other relevant ministries have been flexing muscles good enough

to effectively manage and stamp out the disease pandemic. Above all, is the critical efforts that have been carried out by the government in consonance with departments, agencies, the World Health Organization, stakeholders and other partners in either the coordination and review of national response strategies and implementation strategies on every day basis to checkmate the spread of the virus (NCDC, 2020), African News (2020).

At the moment, a number of pharmaceutical measures have been employed to forestall the importation of new cases from other countries, mitigate local transmission and discourage the spread among persons and groups. Several measures have been put in place by the federal, state and local government, religious bodies, the civil society organizations, higher institutions of learning, among others. Consciously or unconsciously, people have been encouraged to stay at home, wear face masks in public and crowded places, diagnose and isolate where necessary and many others. Again, as part of the strategies to mitigate the impending covid virus, the federal government of Nigeria was said to have expanded its social safety nets and welfare programmes to all affected states. It should be recalled that the period following the emergence of the virus was a bit dicey. Owing to the total or partial lockdown declared by the federal government, life became quite nasty, and the Nigerian populace were grappling for survival. There was high poverty rates, hunger and starvation, etc. The federal government in its wisdom embarked on some kind of social safety and bailout for the citizens through food rations, food vouchers, conditional cash transfers and other brands of palliatives ostensibly to ameliorate the sufferings of the impoverished and vulnerable groups (Africannews, 2020). Unfortunately, however, some of these palliatives were literally diverted by the powers that be, while hundreds of thousands of Nigerians were languishing in hunger and starvation during the lockdown. It should be noted here that until the rampaging Nigerian youths under the aegis of “End SARS” protests bursted some of the government food

storage facilities in places like Lagos, Plateau, Cross River states, it would have been practically impossible to discover that food items meant for the masses have been stashed away into private coffers.

Conclusion

This brief paper has examined African indigenous knowledge system in the fight against the corona virus or covid-19 pandemic. The paper has examined the Nigerian federal government's level of preparedness in the wake of the rising tides of the pandemic and beyond. What the study has discovered is that Africa generally, and Nigeria in particular, has made ambitious strides in the control of the pandemic. The effective application and use of traditional medicine and herbal substances as it widely practiced have proven that the continent has all it takes to tap and harness its contents and technology for the growth, development and survival of its people. Again, the study has proved that contrary to world views which has subjected the continent to a second fiddle in the international global arena, the continents and its people possess the required potentials and skills that can compete favourably with her peers all over the world.

What the governments and administrations of the African states can do is to ensure that the continent's image and what it is capable of doing in terms of local innovation should be sufficiently projected to the outside world. Experience has shown that the rate of infection in Africa generally is far less compared to those obtained in developed countries. The initial fears expressed by renowned world leaders was that the African continent was going to be worst hit by the virus when the news of its eruption first broke out. Contrary to this perception, today the continent stands tall, and its system is gradually bouncing back to normal owing largely to nature's magnanimous gifts of traditional indigenous therapies for the control of covid-19. It is an experience worth emulating

by other nations who still suffer the pangs and challenges of the disease to date. This work does not hold brief for all kinds of sentiments and propaganda against synthetic vaccines from advanced economies. What we have said here is that Africa and indeed its indigenous knowledge in the campaign against covid-19 should be given global acclaim. Africa and its local technology should now be duly recognized by the Guinness Book of Records as an outstanding traditional medical therapy that can be enhanced, further promoted and developed, not only for the covid-19 pandemic, but also used and kept for a foreseeable future should in case any such misfortune strikes the face of the earth and its people ever again.

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