
RESEARCH ARTICLE

**Cultural Perspectives on COVID-19 Existence, Origins, Preventive Measures and Remedies:
A Survey of Selected Communities in the Yaounde Municipality**

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ABSTRACT

Broadly, this paper is concerned with understanding what participants think about the existence and origins of COVID-19. It also sought their views regarding the barrier measures aimed at stopping the spread of the virus; how the virus can be completely eradicated, as well as the preventive measures that they think can be employed or which they have personally or collectively employed to keep safe from the virus in their communities; and whether their knowledge of COVID-19 issues is influenced in any way by their cultural perceptions or worldviews. This study adopted a mixed-method research design. The population was made up of all the inhabitants of ten randomly selected communities within the city of Yaoundé. A mixed sampling method (purposive and snowball) was employed to draw 50 participants from this population. A total of 50 questionnaires were administered. Forty-six were completed and returned, representing a 92 percent return rate. The questionnaire consisted of both close-ended and free response items. The findings have revealed that the majority of the participants, 41 (89.13%), agreed that COVID-19 exists. Nevertheless, some participants, though small in number 4 (8.70%), claimed they had never heard of COVID-19. Although participants could name barrier measures aimed at preventing the spread of COVID-19, they did not think the measures had the desired impact. The finding on how to eradicate COVID-19 in Cameroon presents a mixed picture, with participants suggesting prayers and the involvement of herbalists, and the appeasement of ancestors. The findings have further shown that the majority of the participants know of herbal treatments or remedies that can be used or which they have actually used against the COVID-19 disease in their communities. And some think their cultural perceptions about diseases, in general, equally apply to COVID-19. Finally, this study has added to existing voices on why Cameroon is struggling with convincing the population to vaccinate against the COVID-19 virus, at least as far as the participants in the participating communities in this study are concerned. It is concluded that cultural perspectives can affect health-related behaviours. While the biological sciences can help us prevent future pandemics, we argue that understanding individual behaviours, through the social sciences, including education, can improve health practices and prove critical in managing future pandemics.

KEYWORDS

Cultural Perspectives, Origins, Treatment, COVID-19, Social Sciences and Education, Cameroon

ARTICLE INFORMATION

ACCEPTED: 20 September 2022

PUBLISHED: 30 September 2022

DOI: 10.32996/jhsss.2022.4.3.32

1. Introduction

The world has not seen anything like the current coronavirus pandemic – it could hardly have been imagined that '[o]ne virus [could hold mankind] hostage and impose a new norm of relationships and collaborations for individuals, nations and multilateralism' (News Agency of Nigeria, 2021). According to the National Institute of Allergy and Infectious Diseases, the COVID-19 disease 'emerged from China in December 2019 and was declared a global pandemic by the World Health Organization on March 11, 2020' (para, 1). The current coronavirus 'called SARS-CoV-2' is the 'third to emerge in this century' and is responsible for the COVID-19 disease (National Institute of Allergy and Infectious Diseases, 2021, para 1). The 2019 outbreak, with its associated delta and omicron variants - appears to be '... one of the direst and most devastating viral outbreaks in modern history' (Haghani

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and Bliemer, 2020, citing Sohrabi *et al.*, 2020; and Wang *et al.*, 2020), in terms of infections and mortality rates, and the unprecedented amount of resources – both human and material - that have been mobilised to fight the pandemic globally (Haghani and Bliemer, 2020). On the global infections and mortality rates, there are currently more than 581 million confirmed cases and about 6.4 million deaths as at 31 July 2022 (Worldometer, 2022).

In his pronouncements that COVID-19 should be regarded as a global health pandemic, the WHO Director-General emphasised that ‘the greatest concern is the potential for ... [the COVID-19] virus to spread to countries with weaker health systems which are ill-prepared to deal with it’ (WHO, 2020). However, it would appear the impact of the virus in these ‘countries with weaker health systems’ is yet to get to the proportion feared, at least in some of the countries - but the danger remains.

There have been sustained efforts globally to contain the COVID-19 pandemic, and this is not without challenges. The ‘unprecedented circumstances created by the COVID-19 pandemic have presented huge challenges to’ (World Bank Group, 2021) nations globally. In spite of this, the global community has been indefatigable in the fight against the COVID-19 virus since it was declared a pandemic by the World Health Organisation (WHO) on March 11, 2020 (Osier *et al.*, 2021). This is demonstrated in the resources (both human and material) that have been mobilised so far, especially in developing vaccines; and recently, the scientific community has been in search of ‘drugs that can treat Covid (sic)’ (Gallagher, 2022, para. 1). Although the world cannot be said to be out of the woods, just yet, with regards to the complete eradication of the virus - as a complete cure is yet unavailable – at least, vaccines are now available against COVID-19, and many more are in the course of being developed.

This study aligns with one of the research themes identified by Titanji (2020, p. 213) aimed at understanding the COVID-19 pandemic in Cameroon, which is the ‘Human behaviour and response to the pandemic’, as it deals with ‘knowledge, attitudes and practices’ of individuals as they approach the pandemic. Titanji has suggested that ‘[k]nowledge attitudes and Practices (KAP) studies should be undertaken in our communities about the COVID-19 ... spread and management’ (p. 213). Thus, this paper pushes the frontiers of knowledge within the social sciences, including education, in this fast-growing field of research in COVID-19, as it reflects on ‘how different cultural [perceptions] affect health-related behaviours ...’ (Napier *et al.*, 2004, p. 1612, citing Rivers), especially as it relates to the pandemic; and supports the notion that ‘... beliefs and practices are embedded within traditional [or cultural] world views’ (Napier *et al.*, 2014, citing Rose, 2006; Lock, 2005; Helman, 1978), or perspective.

A cultural perspective has been defined as ‘seeing a situation or concept through the eyes of an individual’s native environmental and social influence. It is the influence that culture and society have on a person’s worldview and perspective’ (AlleyDog.com, 2021, para. 1). In this study, this may include the social influence of religion as well – whether it is traditional or mainstream. Broadly, this paper is concerned with understanding what the sampled communities located within the Yaoundé metropolis think about the origins of SARS-CoV-2 – the virus that causes COVID-19, the preventive education measures put in place, and the remedies that they think can be employed, or which they have personally employed to keep safe from the virus. In other words, the unique methods and approaches, if any, that people in these communities have used or are currently using to fight the pandemic – individually or collectively; and whether their knowledge of COVID-19 issues is influenced in any way by their cultural perceptions or worldviews.

2. Literature Review

2.1 On the Existence and Origin of COVID-19

According to the National Institute of Allergy and Infectious Diseases, there are many coronaviruses known to man found largely in animals such as ‘pigs, camels, bats and cats’ (National Institute of Allergy and Infectious Diseases, 2021, para 1). ‘Sometimes those viruses jump to humans—called a spillover event—and can cause disease’ (National Institute of Allergy and Infectious Diseases, para. 1).

Although the COVID-19 pandemic first started in China in 2019, ‘[t]here remain many unanswered questions as to the origins of SARS-CoV-2, the virus that causes COVID-19 ...’ (McCaul, 2020, p. 3), ‘and the circumstances of the first cases of human infection, remain unknown’ (The National Academies of Sciences, Engineering, and Medicine, 2021, para 1). In their statement on the origin of SARS-CoV-2, ‘the presidents of the National Academies [of Sciences, Engineering, and Medicine] urge that investigations of the origins of SARS-CoV-2 and COVID-19 be guided by scientific principles...’(para. 2). According to the presidents ‘[s]cience is our best tool to ascertain or to understand to the extent possible, the origins of SARS-CoV-2 and COVID-19, which could help prevent future pandemics (para 1). They argue that

... misinformation, unsubstantiated claims, and personal attacks on scientists surrounding the different theories of how the virus emerged are unacceptable and are sowing public confusion and risk undermining the public’s trust in science and scientists, including those still leading efforts to bring the pandemic under control (para 1).

‘While the source of the virus is currently unknown’ (McCaul, 2020, p. 7), the concern of the international community at the moment is on how to mitigate its impact - economic, social, and health, now and in the future (Ehrenberg *et al.*, 2021). Because, in spite of

the progress made in the fight against the pandemic, 'much still needs to be done to [completely] stop the pandemic, particularly in developing nations (The National Academies of Sciences, Engineering, and Medicine, 2021, para 3).

When the COVID-19 pandemic first struck Africa, Cameroon was amongst the very first countries that experienced it. Cameroon had its first case of the virus on March 6, 2020, when a passenger who had arrived in the country from France tested positive for the virus (Mbopi-Keou, Pondi, and Sesso, 2020). However, according to Beche (2020), the government of Cameroon kept mute for well close to a 'dozen days' before it could release a statement 'on the Cameroonian response to the pandemic' (p. 760).

As at 'May 2020, Cameroon had the highest number of confirmed [COVID-19] cases (i.e., 2069) in the Central African sub-region and the highest number of confirmed cases on the continent, behind Algeria, Egypt, Morocco, Nigeria, and Ghana (Ojong, 2020, citing Africa Centre for Disease Control and Prevention). Again, by September 10, 2020, 'Cameroon [had] reported more cases and deaths than most countries in Central Africa – nearly 20,000 cases and 415 deaths... [y]et many hospitals remain woefully unprepared six months into the pandemic (Saadoun, 2020, para. 12), citing the World Health Organization. Current figures, as at 30 July 2022, show that Cameroon has 120 215 confirmed coronavirus cases and 1,931 COVID-19-related deaths (Worldometer, 2022).

Denial of the existence of COVID-19 has been a challenge to many countries in fighting the virus. In fact, even from the early days of the pandemic, and until now, it appears the majority of the people, including those in rural and peri-urban areas, believed COVID-19 did not exist (Ngeunga, 2020); or if it did, it is not a black man disease, as it affects more of the white people (Osugwu *et al.*, 2021). And more so, they argue that they cannot be infected by the virus because Africans have immunity to the virus due to their culture, including the food they eat, the traditional herbs they use for various ailments, etc. However, this way of thinking was challenged by the Afro-British actor, Idris Elba. In an earlier interview (Ross, 2020, para. 4), the actor expressed his worries, thus

"[t]here are so many stupid, ridiculous conspiracy theories about black people not being able to get it. ...That is the quickest way to get more black people killed. And I'm talking about the whole world, wherever we are. ... Just know you have to be just as vigilant as every other race."

Elba could afford to say this because he once tested positive for the virus himself, so he has no doubts that it exists. According to Nebe (2020, para. 1), '[d]enialism is impeding the ability of African governments to curb the spread of COVID-19. [And] [s]tate corruption and poor communication make buying into conspiracy theories tempting, especially for young people.' A church in Cameroon was sealed off for claiming that 'COVID-19 does not exist' (Kindzeka, 2020). Kindzeka cited a member of the church as saying, '[we] are asking everybody to go on their knees and pray and know that there is nothing as coronavirus' (para. 4). A 49-year-old farmer Fotso said she believes in the teachings of the church that deny the existence of COVID-19, as they

... just confirmed her thoughts that COVID-19 is a hoax.... [She added that] no member of a group of 300 farmers where she belongs [has] ever attested that she saw a COVID-19 patient and none of them has been sick of the so-called coronavirus' (Kindzeka, 2020, para. 6).

On those grounds, therefore, she said she 'will follow [the church's] order not to wear a mask' (para. 5). Curiously, it looks like the denial of the existence of COVID-19 is not uncommon in countries in the sub-Saharan region. For instance, a porter in Kenya was quoted as saying that he does not "believe the coronavirus disease exists. [He argued], [l]ook at the people around here: No one is wearing a mask. I don't think that disease has reached Kenya ..." (Nebe, 2020, para. 2). To Lucia Mueni, a '29-year-old [Kenyan] university student', the pandemic is "a lie." She was further quoted to have lamented that 'her education has been put in jeopardy by a disease that does not exist' (Nebe, 2020, para. 3). According to Lucia Mueni, "COVID-19 was invented as a fake disease by China and America to ruin our economy because they saw how close we are getting to them.'" She urged the Kenyan government to " [o]pen schools, open businesses and go the Tanzanian way ..." (para 4).

Still, within the context of downplaying the existence and how virulent the COVID-19 virus is and the impact it might have on peoples' attitudes towards measures designed to curb its spread, the late president of Tanzania declared the country 'completely free of the virus after an initial strict shutdown in response to the pandemic' (Sippy, 2021, para. 4). According to Juma (2021, para. 13), the president argued 'that the [COVID- 19] virus has been defeated by prayers', and urged Tanzanians to take lemon and ginger to treat COVID - 19 symptoms (Mpoti, 2020, para. 3). He even stopped releasing 'statistics on infection or deaths from the virus' (Juma, 2021, para. 14). However, the new President of Tanzania has 'acknowledged that Tanzania can no longer wish the [COVID -19] virus away' (Juma, 2021, para. 15).

At one point in Cameroon, statistics on COVID-19 infection rates and deaths stopped being released to the public. It can be argued that such decisions can lead to distrust in the minds of the people about their government's intentions or motives. According to Nebe (2020, para. 7), 'distrust in the government's motives and poor health communication have also fueled conspiracy theories

across the continent....' This assertion has been corroborated by Hollingsworth (2021) when the author argued that 'rampant misinformation [could make] ... some people ... not taking the threat seriously.' Evidently, people have been quite ambivalent about the COVID-19 pandemic in Cameroon. Even with the existence of different variants of the virus, they still seem not to care much, as there is still doubt in their minds about the existence of the virus.

As has been suggested by the National Academies of Sciences, Engineering, and Medicine, (2021), collective effort is required globally, including from developing nations, to win the fight against the COVID-19 pandemic. In Cameroon, as in most countries in Africa, local communities have a role to play in finding a way to stop the progress of COVID-19 in their communities and countries – as the virus is still with us. Therefore, what they think of the origin of the virus can inform their attitudes towards the measures put in place to fight the virus, now and during future pandemics. Also, how they think the virus can be eradicated can contribute to efforts to stop the coronavirus in these nations, now and in the future.

2.2 Health-seeking Behaviours and Personal Preventive Measures of Traditional Africans in the Context of COVID-19 and other Diseases

As mortals, we sometimes get sick. And when we do, we search for remedies to our ailment from a variety of sources. As Africans, we have a choice between traditional medicine and orthodox (Western) medicine (White, 2015). Generally, Africans who adhere to traditional ways of treatment have never been 'against a western medical way of treatment or healing process [but they generally] believe that there are some diseases that western medicine cannot treat and therefore need' (White, 2015, p. 1) traditional approaches. Hence the advent of western medicine and healthcare systems has hardly changed African communities' reliance on traditional medicine for their healthcare needs (WHO, 2001).

Health-seeking behaviour is "any action or inaction undertaken by individuals who perceive themselves to have a health problem or to be ill for the purpose of finding an appropriate remedy" (Olenja, 2004, cited in Laturji and Akinyemi, 2018, para. 5). According to Chukwunke, Ezeonu, Onyire, and Ezeonu (2012, p. 332), '[u]nderstanding human behaviour is [a] requisite to change behaviour and improve health practices.' Chukwunke and colleagues further note that

Several factors play a role in the health-seeking behaviour of individuals, and they include predisposing variables such as age, gender, culture, religion, occupation, prior experiences with illness, level of education, general attitudes towards health services, and knowledge about presenting illness. Others are the enabling factors such as availability of health services, financial resources, social networks, and support services, and perception of the severity of the disease (p. 332).

In the context of Cameroon, as in other African countries, the diverse cultures in the country, with more than 250 languages, and the complex cultural and religious practices that ensue 'reflect on the people's attitudes and understanding of their health matters within the same country' (Chukwunke *et al.*, 2012, p. 332), or even community. According to Chukwunke *et al.* (p. 333), '[c]ulture and personal beliefs play a very important role in the health-seeking behaviour of people, especially in rural areas.' For instance, some Africans believe 'that most of the health problems are spiritually related and therefore do not need the attention of an orthodox medicine' (Chukwunke *et al.*, p.333).

Although substantial 'efforts are underway in the developed world to find a' permanent cure for COVID-19, with the hope that once there is a breakthrough, Africa will benefit, as it has often been the case with past diseases; Africa should not drop the gauntlet – instead African scientists should redouble 'efforts to find a new treatment for the disease' (Titanji, 2020, p. 211). While we support Titanji's call for African scientists to work hard to find a permanent cure for COVID-19, we think that there is a need for traditional herbal practitioners to equally join the fight and work to produce an effective herbal remedy against the virus. This need even becomes urgent because of the time it takes for medication that is discovered in the west to find its way to 'African populations'. Examples abound of medications that existed for years in the USA and Europe before being made available to Africa. By that time, scores must have perished for, otherwise, preventable diseases. The medication for the treatment of HIV has been cited as a case in point (Titanji, 2020).

According to White (2015, p. 6), '[l]ong before the advent of Western medicine, Africans had their own way of dealing with diseases, and it worked for them.' The author argues, while citing Truter (2007, p. 57), that;

African traditional healers or diviners were intelligent enough to prescribe traditional solutions to diseases, whether they had spiritual or physical causes with little or no side effects. [And that] [w]hen it is psychological, the person is sometimes counselled and is given the necessary attention.

Hence, the holistic nature of African traditional healing means that it does not only take care of 'the physical condition but also [of] the psychological, spiritual and social aspects of individuals, families, and communities' (Truter, 2007, p. 57 as cited in White, 2015, p. 6); and the herbs are readily available and affordable, unlike orthodox medicine. According to Kofi-Tsekpo (2004), the unavailability and high cost of allopathic medical healthcare and pharmaceutical products have 'made African traditional medicine

become increasingly popular'; and also affordable (Omonzejele, 2008), which explains, perhaps, why many people patronise them. Hence, Matiashe (2021) points out that

In the early days of Covid-19, people from Zimbabwe to Tanzania turned to home remedies for a disease about which little was known. But now, even as African countries begin rolling out vaccine programs, many could still stick with traditional treatments (para. 1).

Matiashe cites Itai Rusike, the executive director of Zimbabwe's Community Working Group on Health, as saying that

...it's common for people in the country to first consult traditional healers or use home remedies to treat general illnesses before seeking modern medical care services, especially for those in rural areas who live far away from medical health facilities (para. 4)

An attitude that

has been exacerbated by the Covid-19 pandemic, as the majority of people in Zimbabwe seem to have more faith and trust in home remedies to prevent and treat Covid-19 related illnesses due to vaccine disinformation and skepticism' (para. 5).

However, traditional African remedies are not known to satisfy safety and efficacy requirements (White, 2015; Titanji, 2020). In other words, their safety and efficacy are supposed to be tested under laboratory conditions, in line with ethical requirements, and be licensed for human consumption (Titanji, 2020) if other people must patronise them. Perhaps, until this is done, herbal medicine discovered in much of Africa will not be recognised outside the shores of Africa. However, Mr. Vitalice Ochieng, Senior Programme Manager for TICAHA [Trust for Indigenous Culture and Health], argued, as quoted by UNESCO (2020, para. 10) that

We will improve the value and recognition of traditional medicine if we place the practitioners (sic) at the center of policy formulation and implementation. Within their grassroots networks, they can learn from each other, challenge each other and address the questions of ethical practice that often pose a challenge to the sector.

Perhaps it is in recognition of the crucial role that traditional medicine can play in healthcare that '[t]he World Health Organization (WHO) ... called on African governments [almost two decades ago to grant] formal recognition to traditional medicine, create an enabling environment for its practice, and integrate the time-honoured system of medicine into their national health systems' (WHO Africa, 2003, para. 1). Dr. Ebrahim M. Samba, who made the call, was the WHO Regional Director for Africa - at the time; Dr. Samba underscored the virtues of traditional medicine, noting that it has

played a crucial role in combating multiple and complex conditions affecting Africans and that because of its popularity, accessibility and affordability, more than 80% of the people in the Region continued to rely on it for their health care needs (WHO Africa, para. 2).

He further points out that

In several African countries, traditional medicine is currently being successfully used for the treatment of common diseases such as malaria and for the management of HIV/AIDS and sickle cell anaemia, as well as chronic conditions such as diabetes and hypertension (WHO Africa, 2003, para. 11).

Perhaps it is against this backdrop that there have been some bold attempts in some quarters in Africa to tout African herbal remedies as an effective treatment against the COVID-19 virus (Matiashe, 2021), with some downplaying the infectious and lethal nature of the virus, saying it is not more than a 'viral pneumonia' – in order to promote the fact that African herbs can decimate the virus; an example is the case of Tanzania in the early days of the pandemic (Sippy, 2021). The president of Tanzania (now of late) recommended that the people should take lemon and ginger, as his own son recovered from COVID-19 by drinking this mixture (Mpota, 2020). According to Mpota, 'while the majority believe that local herbs are effective treatments, others – including some educated youths and civil servants - are more sceptical, arguing that there is limited scientific evidence to support their use' (para. 19), especially as it is difficult to tell if the reported symptoms are actually those of COVID-19 because of limited testing or absence of testing.

In Cameroon, the Minister of Health signed, on July 8, 2021, a decision approving the use of three local remedies, developed separately by Bishop Samuel Kleda and Dr. Yagnign Mfoupou, for use in the treatment of COVID-19 patients; two of the remedies, known as 'ADSAK' and 'ELIXIR COVID' were developed by Bishop Kleda, and the other known as 'THYMUS VULGARIS' was developed by Dr. Yagnign (Pefok, 2021, p. 5). As in most sub-Saharan African countries, the belief system of an average Cameroonian, within the context of healthcare, reflects their social, cultural, political, or even economic positions or standings in

the larger society. Africans, including Cameroonians, do not depend on one source 'to safeguard their healthcare.' Indeed they have a 'whole repertoire ... for dealing with' their health issues. They use 'prescription drugs', foreign or western branded [over the counter] medicines, as well as 'herbs or herbal-derived treatments' (Jones, 2006, p. 179; see also WHO Africa, 2003, para.8).

2.3 Beliefs (cultural perspectives) on the causes or origin of disease and implications for the adoption of COVID-19 preventive measures and the uptake of vaccines or medications

In much of sub-Saharan Africa, 'understanding the health problems and their causes differ from community to community ... from religion to religion and from culture to culture' (Chukwunke *et al.* 2012, p. 332). Chukwunke *et al.* further point out that '[m]ost people believe diseases are caused by supernatural beings, the handiwork of neighbours or vengeance from an offended god as a result of transgressions committed in the past by an individual or parents.' The authors suggested that to this group of people, traditional medicine is the preferred mode of treatment.

But Perra (2021, para. 1) argues that '[o]ur interactions, movements, and behavior affect the spreading of infectious diseases', and '[t]he unfolding of such illnesses, in turn, might drastically affect our actions' (para. 1). This is a more modern viewpoint of how diseases could be spread, but that which is equally shared by some Africans whose thinking is embedded in different traditional beliefs and customs, especially the aspect of how our behaviours could lead to the spread of diseases. There are a host of other ways Africans who are immersed in their cultures or traditions –that is, those who live 'in accordance with the values and norms of the traditions of [their] society' (Iroegbu, 2005, p. 82, cited in White, 2015, p. 2), explain or understand the causes or the origin of diseases.

There is this 'view that disease is often caused by attacks from evil or bad spirits.' Based on this understanding, it is believed that ancestors could punish individuals with all sorts of diseases if they were not treated well (Magesa 1997, p. 75 and Westerlund 2006, pp. 91–95, cited in White, 2015, p. 2). Ancestors are said to be angry if they are 'neglected or forgotten by their relatives' and can thus send the individuals 'misfortunes as punishment' (Nyamiti, 1984, cited in White, 2015, p. 2). As for White (2015), this anger can only be assuaged 'through prayers and ritual in the form of food and drinks' (p. 2).

Yet another cause or origin of disease, from a cultural or traditional perspective, could be through '[s]pell-casting and witchcraft', which makes one become sick. In this case, it is believed 'that people with evil powers could cause other people they see as their enemies or are disrespectful to them to become sick as a way of punishment (Olupona 2004, p. 113, cited in White, 2015, p. 2). Corroborating Olupona (2004)'s view, Obinna (2012, pp. 137 – 139; Thorpe 1993:25 also cited in White, 2015, p. 2) argues that 'many traditional African communities are of the view that certain illnesses which defy scientific treatment can be transmitted through witchcraft and unforeseen forces; these include barrenness, infertility ... persistent headaches and repeated miscarriages.' Maybe some people might feel that the COVID-19 virus should be included in the list.

Taboos have also been implicated as a cause or origin of diseases. 'Taboos form an important part of African traditional [worldview]. They are things, or a way of life that is forbidden by a community or a group of people' (Isiramen 1998:186, as cited in White, 2015, p. 2). To Magesa (1997:76, 148–149, also cited in White, 2015, p. 2), '[t]aboos exist to make sure that the moral structures of the universe remain undisturbed for the good of humanity.' Taboos must not be disobeyed, as disobeying them 'is one of the ways people could become sick' (Gyekye 1995:133, cited in White, 2015, p. 2). According to White (2015, p. 2),

[t]he amazing part of many of these taboos is that, when one violates any of them secretly, the person does not go scot-free. The consequences always manifest either on the person(s) concerned or the entire community in the form of diseases and possibly death.

As with other peoples elsewhere, it is hard to discuss sickness without mentioning health among culture-focused Africans - the two concepts go in tandem. 'Good health for the traditional African is not a subjective affair' (Omonzejele, 2008, p. 120). Africans with a deep sense of tradition have an 'integrated view of health ... based on the unitary view of reality' (Omonzejele, p. 120). Consequently, Omonzejele argues that good health for the traditional African embodies the 'mental, physical, spiritual and emotional stability [of] oneself, family members, and community' (p. 120).

According to Iroegbu (2005, p. 82, cited in White, 2015, p. 2), good health to a traditional or cultural African understanding is 'believed to be the result of appropriate behaviour; that is, living in accordance with the values and norms of the traditions of society.' Consequently, 'traditional medicine has at its base a deep belief in the interaction between the spiritual and physical wellbeing of people (Setswe 1999:56–60, cited in White, 2015, p. 2). Generally, 'good health also includes the viewing of an individual as a collective member of the community; as such, good health would also include good relations with ancestors and the community (White, 2015, p. 2).

There are obvious implications of these beliefs for the success of country-specific healthcare systems. For instance, such beliefs could influence individuals' attitudes regarding visits to the hospital when they are unwell, which could have an impact on the

uptake of vaccines and medication for the treatment of COVID-19 and future pandemics; and even the respect of the measures put in place to stop the spread of the virus.

Like in most other countries in Africa, the government of Cameroon portrayed COVID-19, in its early days, as a very deadly disease and 'responded aggressively to the threat' posed by the pandemic. People were advised, through education campaigns, to take preventive measures such as the compulsory wearing of face masks in public places, maintaining social distances, avoiding gatherings of more than 50 people, and regular washing of hands with soap or using hand sanitizers. To achieve this, shops, drinking spots, and government offices were mandated to keep buckets of water with soap at the entrance to their buildings. All shops and drinking spots were forced to close at 6:00 pm, and no one was expected to stay in bars beyond that time.

However, the government fell short of ordering a total lockdown because of fears of 'destroying the economy and normal social life' (Titanji, 2020, p. 210). As with many countries in Africa, 'the economic implications of a nationwide shutdown made it unsustainable' (Kollamparambil and Oyenubi, 2021, citing Wills *et al.*, 2020) for the government of Cameroon to go this route; since '... over 80% of the population relies on the informal economy for a living ...' (Ojong, 2020, p. 8). This means that an outright lockdown would have 'prevent[ed] the interurban travel of informal workers' (p. 8), which would have shut down the economy.

In reality, however, implementing a lockdown in Cameroon would have been a huge challenge because of a few simple reasons, including poor electricity supply to maintain refrigerators, the health system cannot support the doctors reporting to emergencies; so even if you call the dedicated number provided it is very unlikely that medical personnel will visit your home. There is also the problem of water supply – most cities experience water shortages, making regular washing of hands difficult (Ojong, 2020).

It has been predicted 'that many countries in sub-Saharan Africa, including Cameroon, would be ill-prepared to address the devastating health and economic impacts of COVID-19, where fragile health systems and chronic poverty represent significant challenges for the government [s] ... [and] communit[ies] ...' (Ammassari, 2020, para 1). It appears this was the situation the government of Cameroon found itself in, as it could not sustain the enforcement of the initial barrier measures it put in place to fight the pandemic; it was not long before cracks started appearing in its efforts at enforcing these measures. Although the government 'responded aggressively to the threat' posed by COVID-19 in the early days, as noted previously, it also faced huge challenges and thus faltered in a few critical areas.

These challenges (of maintaining the uninterrupted flow of the economy) must have led to the government hastily 'ease [ing] [some of the barrier] measures [put in place] on May 1, with public transportation [allowed to run] as normal, and bars, restaurants, and leisure facilities permitted to open past 18:00 (local time), as long as they adhere to social distancing measures' (Gardaworld, 2020, para. 2). But the population interpreted this as government's declaration of the end of COVID – 19 in Cameroon. This government action was later followed, on 1 June 2020, with the reopening of schools, universities, and training centres, in spite of the fact that the infection rate from the virus was rapidly increasing – at that time, it stood at '6,380 confirmed cases of the virus with 273 deaths' (Kindzeka, 2020, para. 1).

It would appear it was from that time onwards that majority of the population stopped wearing face masks and respecting other barrier measures put in place, even with the announcement that the second wave of the virus was already in the country; and a third wave was underway in some countries on the continent (Africa Centres for Disease Control and Prevention, as cited in Nwai, 2021).

Later, all efforts by the government to try and repair the damage caused by relaxing the restrictions too early, such as reminding the population that the pandemic was not over yet; so they should continue to respect the barrier measures in place, seem to have fallen on deaf ears – as they were not being respected.

As with most African countries, the non-respect of these measures in Cameroon seems to have been partly because of '... limited capacity for monitoring [which] implies that it is largely left to the individuals to comply with the regulation and other precautionary measures to prevent COVID-19 infection' (Kollamparambil and Oyenubi, 2021, citing Chowdhury *et al.* 2020). Further drawing from Kollamparambil and Oyenubi (2021) as they reflect on the situation in South Africa and compare it with that of Cameroon, it could be suggested that like in South Africa, 'the responsibility of managing the pandemic [in Cameroon] through restrained behaviour has essentially shifted to residents of the country ... [and] with no immediate prospects of eradicating COVID-19, non-pharmaceutical interventions remain the most effective defence against the pandemic' (Chowdhury *et al.* 2020, cited in Kollamparambil and Oyenubi, 2021); but this might require the population to be highly mobilised and informed for such interventions to be effective (Osugwu *et al.*, 2021). At the moment, it looks like not many people know why the measures have been put in place, or perhaps they simply do not care.

In fact, '[t]here is currently a lot of concern on social media that Africans will be targeted as "guinea pigs" for drugs and vaccine development' (Titanji, 2020, p. 211; see also Sippy, 2021). This has further been worsened by the suggestion from two French

scientists, who said Africa should be used to test any new medication that will be developed against COVID-19 (Busari and Wojazer, 2020). This might have fuelled the current attitude against COVID-19 vaccine uptake in sub-Saharan Africa. The government of Cameroon is currently struggling to convince the population to vaccinate against COVID-19. According to WHO (2022), '[a]t 10 July 2022, a total of 1,849,562 vaccine doses have been administered' out of a population of more than 25 million people. Even the hosting of the African Cup of Nations between 9 January 2022 and 6 February 2022, in which the Confederation of African Football (CAF) encouraged vaccination as a pre-condition for attending matches, seems not to have changed attitudes; otherwise, the total number of vaccine doses administered to date should have been more.

2.4 Statement of the Problem

There are conflicting reports 'as to the origins of SARS-CoV-2, the virus that causes COVID-19, the root of the global pandemic' (McCaul, 2020, p. 3). Some people claim the virus escaped from a laboratory in Wuhan, China. Not everybody agrees. Researchers who dispute this claim argue that the virus might have jumped to humans through a 'spillover event' (National Institute of Allergy and Infectious Diseases, 2020, para. 1).

Although there are conflicting voices and conspiracy theories as to the origins of coronavirus (COVID-19), however, the National Academies of Sciences, Engineering, and Medicine (2021, para. 2) has urged researchers across the globe 'to be guided by scientific principles' as they investigate the origins of the virus and possible remedy. Also, debates as to what can be agreed to as an effective cure for the disease have been rife, as well as whether some of the barrier measures that have been in use are good enough to ward off the virus.

While there may be multiple scenarios that could explain the origins and possible remedy for the SARS-CoV-2 virus, at least from the scientific perspective, the trade-cultural perspectives on the origins and remedies of the COVID-19 virus should not be ignored. In fact, the opinions or beliefs of traditional Africans regarding the origins and possible remedies for COVID-19 should also be examined. Whilst the source of the virus remains unknown (McCaul, 2020), all hands should be on deck to find a permanent viable cure for the virus and to mitigate its likely economic, social, and health impact on communities (Ehrenberg *et al.*, 2021); and this could, also, include from traditional practitioners or healers.

The above call becomes even more urgent because, in spite of the progress made in the fight against the pandemic 'much still needs to be done to completely stop the pandemic, particularly in developing nations (The National Academies of Sciences, Engineering, and Medicine, 2021, para 3). Thus, this resolve requires the cooperation of all actors within the healthcare system – be it traditional - or allopathic medicine, including service users (the ordinary citizens on the streets).

In the context of this paper, therefore, having knowledge of what traditional Africans think about the origins and remedies for the COVID-19 virus can help countries in sub-Saharan Africa, including Cameroon, better manage their healthcare systems by integrating these perspectives into their national healthcare strategies in order to fight the current and any future pandemics. This is because it has been argued that cultural perspectives could affect health-related behaviours (Napier *et al.*, 2004), and 'understanding human behaviour is a prerequisite to change behaviour and improve health practices' (Chukwunke *et al.*, 2012, p. 332).

2.5 Objectives of the Study

2.5.1 Main Objective

To examine the cultural perspectives of inhabitants of local communities in Yaounde municipality on COVID-19 existence, origins, remedies, and the impact this could have on the uptake of vaccines and other government actions to stem the spread of the virus.

2.5.2 Specific Objectives

1. To investigate the perceptions of inhabitants of selected communities in Yaounde municipality on the existence and origins of the COVID-19 pandemic.
2. To find out from inhabitants of selected communities in Yaounde municipality what they think about the cure and how the virus can be eradicated; and the government measures, so far, put in place to contain the coronavirus in their communities.
3. To investigate the approaches adopted by the inhabitants of selected communities in Yaounde municipality to treat or protect themselves against COVID-19 disease.
4. To ascertain the extent to which the cultural perceptions of individuals on the existence, origins, and remedies for COVID-19 could influence their uptake of vaccines (or medication) and the respect of the barrier or preventive measures put in place by the government.

2.6 Research Questions

1. What are the perceptions of inhabitants of selected communities in Yaounde municipality on the existence and origins of the COVID-19 pandemic?

2. What do the inhabitants of selected communities in Yaounde municipality think about the cure for COVID-19 disease and how the virus can be completely eradicated in Cameroon, and the government measures, so far, put in place to contain the coronavirus in their communities?
3. What are the approaches adopted by the inhabitants of selected communities in Yaounde municipality to treat or protect themselves against COVID-19 disease?
4. To what extent can the cultural perceptions of individuals on the existence, origins, and remedies for COVID-19 influence their uptake of the vaccines (or medication) and the respect for the preventive measures put in place by the government?

3. Methodology

3.1 Population and Sample of the Study

This study uses a mixed method research design employing both quantitative surveys with some open-ended questions in the same questionnaire. The population for the study was made up of all the inhabitants of ten randomly selected communities within the city of Yaoundé. The actual population of these communities could not be determined because of a lack of available data. However, a mixed sampling method (purposive and snowball) was employed to draw 50 participants from this population. The choice of the ten communities was informed by their proximity to the city of Yaoundé; in fact, all the randomly selected communities are actually part of the city but can be considered rural areas. Another reason for the choice is that, because of their proximity, the communities might not be completely removed from the happenings in the city, like the day-to-day actions of the government to stem the spread of the COVID-19 virus.

Most of the participants involved in the study were those who professed knowledge of their culture based on a verbal question asked before their being recruited to participate in the study, which was whether they saw themselves as people who are versed in the knowledge of their culture; and the fact that they are natives of the communities or have lived there for a considerable period of time – since the communities are likely to be inhabited by a large number of non-natives whose livelihood depends on the city of Yaounde. Some of the participants were sometimes identified by those already recruited for this study through a snowball approach. It was hoped that those referred would equally have knowledge of some of the issues addressed in the instrument, like those who referred them.

It is therefore hoped that participants drawn from the communities involved in this study would have opinions on issues pertaining to the COVID-19 pandemic in their communities and the nation as a whole and be in a position to provide useful information needed for this study. In this regard, therefore, it could be stated that the use of participants from these rural communities in the city of Yaounde was an objective way of assessing cultural perceptions of COVID-19 origins and remedies. Written informed consent was obtained from all the participants who took part in the study, informing them of the purpose of the study and the fact that they are free to opt out of the study at any time.

3.2 Data Collection

The instrument used to collect data for this study was a mixed questionnaire consisting of both structured – and open-ended questions. The questions were made up of both general, everyday questions about COVID-19 and specific questions that sought to gauge how participants' cultural perspectives could influence their responses on issues concerning the virus in their communities and the country as a whole. The questionnaire was titled "Cultural perspectives on COVID-19 origins, preventive measures, and remedies (CULPCOVOPR) questionnaire." The instrument was developed by the researchers through an exhaustive literature search and from experience gained from on-going public discussions on the COVID-19 pandemic in the country. The instrument had two sections - an introductory section, designated (A), which sought general information from participants such as their gender, age, level of education, religion, and name of the locality. Section B dealt with the actual issues relating to COVID-19 origins, preventive measures, and remedies (cures).

The general information sought from participants generated 'non-identifiable data', the reason why only written informed consent was obtained from participants. All copies of the questionnaire were administered personally by the researchers – and efforts were made to collect them back on the same day because of the difficulty of locating participants if questionnaires were left behind. The questionnaire was translated into the French language to aid understanding and to avoid any confusion since the majority of the participants were French speakers with no knowledge of the English Language. A total of 50 questionnaires were administered, and 46 were completed and returned, representing a 92 percent return rate.

3.3 Data Analysis

The instrument was divided into two parts - Sections A and B. The data collected from section A were analysed using frequency and percentages. While the data collected from Section B were analysed qualitatively – using conceptual content analysis techniques. Content analysis was chosen because 'it is possible to analyse data qualitatively and at the same time quantify the data' (Gbrich, 2007). In employing the technique, the deductive approach was used because the analysis was guided by the

questionnaire items emanating from the research questions; in other words, the data coding framework was strongly linked to the research questions to help ensure that the study remained focused on its overarching objectives; consequently, the research questions formed key aspects in the codes used. More so, the researchers, at least, had a fair idea of the themes and which way participant responses could go. Further, we looked for similarities and differences in the different sets of data to see what participants were saying or thinking on the issues under review. A number of times statements were mentioned relating to each theme or code were counted, and percentages were determined to know the number of participants expressing the idea or opinion. Ideas were taken as the same even when they appeared in different forms.

4. Results and Discussion

4.1 Discussion

Table 4.1: Characteristics of Study Participants

N= 46

	FREQUENCY	PERCENTAGE (%)
SEX		
<i>Male</i>	30	65.22
<i>Female</i>	16	34.78
AGE		
<i>15-20</i>	2	4.35
<i>21-26</i>	4	8.70
<i>27-31</i>	3	6.52
<i>32-37</i>	11	23.91
<i>38-43</i>	8	17.39
<i>44-49</i>	10	21.74
<i>50-55</i>	4	8.70
<i>56-61</i>	2	4.35
EDUCATION		
<i>Primary level (FSLC)</i>	12	26.09
<i>Ordinary level</i>	12	26.09
<i>Advanced level</i>	7	15.22
<i>Bachelor's degree</i>	6	13.04
<i>Master's degree</i>	8	17.39
<i>PhD</i>	1	2.17
RELIGION		
<i>Catholics</i>	19	41.30
<i>Protestants</i>	6	13.04
<i>Pentecostals</i>	4	8.70
<i>Muslims</i>	3	6.52
<i>Traditional religion</i>	5	10.87
<i>Atheist (no religion)</i>	9	19.57

4.1.1 Answering Research Questions

Research Question 1

This research question sought to determine the perceptions of inhabitants of selected communities in Yaoundé municipality on the existence and origins of the COVID-19 pandemic. In the course of answering the research question, the researchers sought the opinion of participants in the following areas: 1) if they think COVID -19 exists; and if they think it does not exist, why do they think so? 2) When they first learnt about COVID-19 in their communities; 3) What they think COVID-19 is in their opinion; 4) The origin of COVID-19 (where it might have come from); 5) Whether they have any idea about the COVID-19 infection rates and deaths recorded in Cameroon (this question was meant to find out how engaged participants were with issues related to the virus in their communities). The results obtained from the questionnaire items related to Research Question 1 are presented hereunder.

When asked if they think COVID-19 exists, of the 46 participants who participated in the study and provided responses to the question, 41 (89.13%) agreed that it exists; and 5 (10.87%) think it does not exist. On the first time they heard of COVID-19, 42 (91.30%) of the 46 participants who answered the question said it was in 2020 – the very first time it was reported in Cameroon,

and 4 (8.70%) said they had never heard of it. As to what COVID-19 is, 25 (54.35%) of the 46 participants who responded to the question think it is a virus created in China; 14 (30.43%) think it is a natural virus like any other; 2 (4.35%) think it is a virus sent by the gods (ancestors) to punish humans for their bad deeds, and 5 (10.87%) chose not to give an opinion. Regarding the origin of COVID-19, 32 (69.57%) of the 46 participants who answered the question think it originated in China; 1 (2.17%) believes it is a punishment from the gods; and 13 (28.26%) think it has a natural origin.

As to whether participants have any idea about the rate of COVID infections and deaths, so far, recorded in Cameroon, 3 (10.34%) of the 29 who attempted the question managed to give any figures – although not anywhere near the actual rates; 19 (65.52%) participants said they have no idea, and 7 (24.14%) opted not to answer. As we stated previously, this question was meant to see how engaged participants were with issues surrounding the pandemic. In giving reasons why they might not remember the infections and death rates, 8 (42.11%) of the 19 participants who said they have no idea said the government was not honest in giving out the exact numbers, and lots of contradicting figures on different platforms; 4 (21.05%) said government's insufficient capacity to handle the disease was largely to blame; 7 (36.84%) said they really do not care because COVID – 19 does not exist in Cameroon.

Research Question 2

This research question sought to know what the inhabitants of selected communities in Yaoundé municipality think about the cure for COVID-19 disease, how the virus can be completely eradicated in Cameroon; as well as their thought on the government measures so far put in place to contain the coronavirus in their communities. In the course of answering this research question, the researchers asked participants to provide responses to the following: 1) whether the increasing number of COVID-19 cases, as sometimes announced by the government, worried them, and if it worried them, why? 2) How do they think the virus can be completely eradicated in Cameroon; 3) Whether they know and can name any traditional remedy (herb) that can be used or has actually been used to cure the COVID-19 disease in their community; 4) What their culture beliefs about the origin and treatment of diseases, and whether this belief equally applies to COVID-19; 5) Whether they can mention any government barrier measure meant to prevent the spread of COVID-19 virus in Cameroon; whether they think the measures have been effective; and if they think the measures are/ have not effective what, in their opinion, can be done or could have been done differently to make the measures effective, not only now but in future pandemics.

The findings derived from the above research question show as follows: On whether or not the announcements sometimes given by the government showing increases in the number of COVID-19 cases had posed any worry to the participants, and if it has, why? For those to whom the announcements had posed a worry, 7 (15.22%) out of the 46 participants who took part in the study said they were worried because such increases could stall economic growth; 9 (19.57%) were worried because the best preventive measures or cure is yet to be found; 6 (13.04%) were worried for their own health and that of family members as it could lead to more deaths. On the other hand, 16 (34.78%) said it does not or had never worried them because they care less; instead, the government ought to worry more if there had actually been increases in COVID cases at any time; and 8 (17.39%) provided irrelevant responses.

With regards to how participants think the virus can be completely eradicated in Cameroon, 8 (17.39%) out of the 46 participants who participated in the study said it could only be through prayers; 3 (6.52%) think it is by appeasing the ancestors through sacrifices; 24 (52.17%) think only by respecting the barrier measures recommended by the government; 8 (17.39%) suggested that traditional healers and practitioners should be invited to search for an effective herbal treatment, in addition to the ones already recognised by the government; and 3 (6.52%) think you cannot eradicate a virus that does not exist in the country.

Participants were further asked if they know of any traditional remedy (or herb) that can be used or has actually been used to cure COVID-19 disease in their community, of the 46 participants who provided responses to the question, 4 (8.69%) mentioned '*ngul be tara*' (force des anciens, [power of the ancestors, in English]), '*odontole*' (illicit gin) and '*tisane de citronelle*' (lemongrass tea); 3 (6.52%) mentioned a drink concocted by boiling together ginger, fever grass, paw-paw leaves and mango leaves; 2 (4.35%) said eating bitter kola and sugar together can eliminate the virus from the body; 5 (10.87%) claimed that mixing hot drinks with herbal tea, ginger, garlic and honey is a potent cure for COVID-19 disease; 6 (13.04%) mentioned the herbal solution by the Catholic priest, Bishop Kleda; 3 (6.52%) said they know of '*nfo'o ikouk*' (bitter leaf) to be effective against the virus; 2 (4.35%) think mixing together menthol, ginger, herbal tea, and honey is a good remedy for COVID-19; another 2 (4.35%) said drinking a mixture of '*odontole*' (illicit gin), aloe vera and '*Kenkenliba*' (*mille maladies*, French - a thousand diseases, in English]) cures coronavirus infection; 11 (23.91%) do not know of any cure; and 8 (17.39%) did not answer the question.

As regards their cultural beliefs about the origin and treatment of diseases generally and whether this belief equally applies to COVID-19, 15 (32.61%) of the participants said they believe diseases are caused by germs that disturb the body and can be treated

traditionally; 23 (50%) said the people must return to the forest to search for plants or herbs for the treatment of diseases; 3 (6.52%) said what their culture beliefs about the origin of the disease are that it is the manifestation of evil – invoked through rituals; and 6 (13.04%) said they have no idea. On whether the belief they have about the origin and treatment of diseases equally applies to COVID-19, 19 (73.07%) of the 26 participants who responded agreed that this equally applies to COVID-19, and 7 (26.92%) said the belief does not apply to COVID-19 disease.

When participants were asked to mention any barrier measure meant to prevent the spread of COVID-19 virus in Cameroon; and to say whether they think the measures have been effective; and if they think the measures are not effective, what, in their opinion, could have been done differently to make the measures effective, not only now but in future pandemics; 37 (80.43%) out of the 46 participants who took part in the study mentioned correctly the various measures put in place to prevent the spread of COVID-19 in the country. On whether they think the measures have been effective, 5 (10.87%) said they think the measures have had minimal efficacy (20 -50%); another 5 (10.87%) said they have helped to reduce infection rates; 10 (21.74%) think the measures have led to a reduction in deaths and contamination; 3 (6.52%) had no idea; 23 (50%) do not really think the measures have been effective.

On why they say the measures have not been effective and what could have been done differently to make them effective, now and in the future, a number of the participants said the measures have not been effective because people were going about with their normal activities as if there had not been any virus, which means people did not respect the measures. Another reason they gave for why the measures have not been effective relates to the lack of rigour in their implementation. As to what can or could have been done differently to make the measures effective, now and in the future, the majority suggested the following: a) proper sensitisation of the people; b) getting to grips with the concept of African fraternity - the mutual support system of African societies - how relationships work; c) those in charge of enforcing the measures should stay away from corrupt practices and underhand deals to ensure all measures put in place, now and in the future, are scrupulously respected.

Research Question 3

This research question sought answers to the approaches adopted by the inhabitants of selected communities in Yaoundé municipality to treat or protect themselves against COVID-19 disease. In the course of answering this research question the researchers sought the following information from the participants: 1) whether any of the participants, or anyone else they may know, had used any traditional protective method such as talismans, amulets and charms to protect against any disease before, including against COVID-19 – if they have, to name the method and to state whether or not they think it was effective; 2) Whether participants know of any case of COVID-19 disease that has been treated through the use of traditional practices such as consulting mediums (or fortune-tellers), ancestors, and the offering of sacrifices to the gods or deities; and if they know, to state the particular practice that was employed, and describe how the process was carried out; 3) The treatment approaches (traditional or orthodox) they would prefer if they were to be infected with COVID-19, and the reason for their choice; 4) What they are currently doing, plan to do or had done, to protect themselves and families against the COVID-19 virus. The results obtained from the analysis of the questionnaire items related to Research Question 3 are presented hereunder.

As to whether participants themselves or anyone else they may know had used any traditional protective method such as talismans, amulets, and charms to protect against any disease before, including against COVID-19; and if they have, to name the method and to state whether or not they think it was effective, no participant accepted that they or anyone else they may know had used any such method. Regarding whether participants know of any COVID-19 cases that have been cured through the use of traditional methods such as offering sacrifices to the gods or deities, as well as consulting mediums or ancestors, none of the participants said they know of such methods.

When participants were questioned to state the treatment approaches (traditional or orthodox), they would prefer if they were to be infected with COVID-19 and the reason for their choice; of the 29 (62.04%) out of 46 participants who provided responses and preferred the traditional approach of treatment, 22 (75.86%) said it is because it is the most effective and it is natural (with no chemical composition), and no side effects; and 7 (24.14%) said because they do not have confidence in western medicine, and more so, Africa is less affected by the disease. Of the 7 (15.22%) out of 46 participants who provided responses and preferred western medicine, the majority 5 (71.43%) said because it is effective and western treatment had proven to cure COVID-19 patients; and 2 (28.57%) said because of the confidence they have in hospitals.

Regarding what they are currently doing, plan to do, or have done to protect themselves and their families against the COVID-19 virus, 5 (10.87%) said they plan to vaccinate; 4 (8.69%) said they maintain perfect hygiene both in and out their homes; 11 (23.91%) said they live their lives normally because the virus does not exist in Cameroon; 5 (10.87%) said they believe in God because God never deceives; 11 (23.91%) said they emphasise the importance of implementing preventive measures recommended by the government such as regular washing of hands, face masks and avoiding unnecessary outings; 7 (15.22%) said they use traditional herbs and concoctions such as '*nfo'o ikouk*' (bitter leaf), and 3 (6.52%) said they are doing nothing at the moment.

Research Question 4

This research question set out to investigate the extent to which the cultural perceptions of individuals on the existence, origins, and remedies for COVID-19 influence their uptake of the vaccines (or medication) and the respect for the preventive measures put in place by the government. In the course of answering this research question, the researchers sought to know from the participants the following things: 1) whether they think they are respecting the COVID-19 preventive measures put in place by the government, and if they are not to give the reason why they are not; 2) If their culture is against the use of any of the preventive measures, and if yes, to state the measure that their culture is against its use; 3) What they think about the use of vaccines against COVID-19 in Cameroon; whether they have been vaccinated – and if yes, why did they choose to do so; and if no, their reason for not taking the vaccine. The results obtained from the analysis of questionnaire items related to Research Question 4 are presented hereunder.

As regards whether participants think they are respecting the COVID-19 preventive measures put in place by the government, out of the 46 participants who provided responses, 24 (52.17%) said they do, and 22 (47.83%) said they do not. And for those who do not respect the measures, 17 (77.27%) said the reason is that the virus does not exist in Cameroon and is not known to the culture; and 5 (22.73%) said the reason is that respecting the measures does not prevent the disease. And on whether their culture affects the use of any of the barrier measures, 7 out of the 46 participants (15.22%) who provided responses mentioned face masks.

Concerning what the participants think about the use of vaccines against COVID-19 in Cameroon; 20 (43.48%) of the 46 participants who provided responses said the vaccine does not prevent the virus, so it is useless; 5 (10.87%) think it is poison, and 16 (34.78%) think vaccination in Cameroon is propaganda and a waste of funds and resources. And on whether they have been vaccinated – and, if yes, why they choose to vaccinate; 5 (10.87%) said they vaccinated for precautionary reasons and to prevent the virus; and as to why participants have not been vaccinated, 41 (89.13%) participants who attempted the question provided the following reasons (summarised here): i) the vaccine is ineffective – it does not stop the virus; ii) lack of trust in the vaccine and the risk of secondary effect, hence the preference for herbal treatment; iii) never been sick so it is needless; iv) a means to reduce the population of Africans and the Cameroon government is implicated in the scheme; iv) vaccine increases illnesses.

4.2 Discussion

The findings resulting from the analysis of data for this study are discussed in the order in which the research questions have been written. The findings have highlighted a whole range of issues relating to the COVID-19 pandemic in the communities studied; and, to a larger extent, Cameroon. The analysis of data has revealed that participants' responses to questions appear to have been dictated more by their religious beliefs (whether Christians or Muslims) than by the influence of their core native traditional environment, such as their beliefs in some traditional practices and worship. This outcome can be attributed to the preponderance in the sample of participants who are adherents of the mainstream religions and whose views are likely to be different than those of individuals who profess other beliefs. Judging from the teachings of these mainstream religions, it can be argued that certain expected cultural practices and beliefs are linked, for example, to how diseases (including COVID-19) are perceived or treated as highlighted in the literature (see, for example, Chukwunke *et al.*, 2012) might not have been common amongst the participants as compared, perhaps, to if the majority were to be those who adhere to the core traditional religion or even those who do not have a religion (atheists). It has been argued that cultural perspectives could affect health-related behaviours (Napier *et al.*, 2004), including how individuals answer questions relating to specific health issues; and 'understanding human behaviour is a prerequisite to change behaviour and improve health practices' (Chukwunke *et al.*, 2012, p. 332).

It is interesting to note that on the question of whether or not COVID-19 exists, an overwhelming number of the participants who took part in this study agreed that COVID-19 exists, which may be an indication of the positive effects of COVID-19 education campaigns in the communities, in particular, and the country, in general; even though the literature on COVID-19 is rife with conspiracy theories as to the existence of the virus right in Cameroon's own backyard. For example, Kindzeka (2020, para. 4) reported a case of a church in Cameroon which was sealed off for claiming that 'COVID-19 does not exist'. To Nebe (2020, para. 1), '[s]tate corruption and poor communication make buying into conspiracy theories tempting, especially for young people.'

Nevertheless, it is surprising to note that when participants were asked to state when they first heard of COVID-19, some of them claimed they had never heard of it. Although the number of those saying so seems small as compared to those who are aware of the existence of COVID-19, it still draws attention and might have policy implications. Considering the level of discussions and publicity regarding the virus by the different stakeholders, one would expect all participants in this study to be aware of the existence of the virus. In hindsight, this could suggest a lack of interest in anything relating to the virus among this group of participants.

Although the bulk of the responses in this study might have been influenced by participants' religious background due to the presence in the sample of the majority of participants who profess their faith in the mainstream religions, as highlighted previously yet, some participants were still able to express their core cultural worldviews in the manner they responded to some questions.

For instance, when asked what they think COVID-19 is, some of them said it is a virus sent by the gods (or ancestors) to punish humans for their bad deeds and for not treating the ancestors fairly; thereby corroborating the belief that ancestors could punish individuals with all sort of diseases if they are not treated well (Magesa 1997, p. 75 and Westerlund 2006, pp. 91–95 cited in White, 2015, p. 2). That there are differences in opinion of participants that participated in this study regarding what COVID-19 is should not be surprising because, as Chukwunneke *et al.* (2012, p. 332) note, in much of sub-Saharan Africa's understanding the health problems and their causes differ from community to community ... from religion to religion and from culture to culture.' It is not strange, therefore, for some participants to think that diseases are caused by supernatural forces because, as Chukwunneke *et al.* further submit, 'most people [in Africa still] believe diseases are caused by supernatural beings, the handiwork of neighbours or vengeance from an offended god as a result of transgressions committed in the past by an individual or parent.' And as one of the results of this study shows, for this group of people, traditional medicine is the preferred mode of treatment.

As expected, no participant was able to remember any figure close to the actual rate of infection and deaths from COVID-19 in Cameroon – this question was added in order to measure participants' engagement with COVID-19 issues in their communities. However, a lot has been revealed on why participants could not remember or even attempt to give an approximation for these numbers. The government's action seems to contribute to this outcome, as participants think the government has not been honest in giving out the exact infections and fatalities numbers, in addition to lots of contradicting figures on different platforms; and the fact that the government even stopped at some point releasing these figures to the public. This means participants feel alienated from showing an interest in such statistics.

Such government decisions as above, as well as the early reopening of bars, restaurants, and schools in the early days of the virus soon after they were closed (Gardaworld, 2020; Kindzeka, 2020), must have also affected peoples' attitudes towards respecting the measures put in place to stop the spread of the virus; or about issues related to the disease, as a whole. This must have led the population to interpret this as the government's declaration of the end of COVID – 19 in Cameroon. These also appear to have influenced the opinion of participants of this study, for although the majority of them could name barrier measures put in place to prevent the spread of COVID-19, they did not think the measures have had the desired impact or success; probably because the respect of the measures was 'largely left to the individuals to comply with the regulation and other precautionary measures to prevent COVID-19 infection' (Kollamparambil and Oyenubi, 2021, citing Chowdhury *et al.* 2020).

The above course of events might have also informed the responses of the participants when they were asked if they have ever been worried about the statistics of COVID infections and deaths sometimes announced by the government and other stakeholders. In their response to the question majority of the participants said they cared less about it; and thought the government should rather be worried if there have actually been such increases. This scenario seems to be a clear indication of distrust in government actions (see Hollingsworth, 2021; Nebe, 2020), in spite of the efforts the government has so far put in place to halt the spread of the virus.

The finding on how the virus can be completely eradicated in Cameroon presents a mixed picture. While some participants suggested prayers as the only way out, a belief which is popular amongst Christians (see Kindzeka, 2020), others think traditional healers should be involved in the fight; and still, a majority think only when people start respecting the measures put in place that the virus can be completely eradicated - a confidence vote of some sort on the authorities that advocated these measures.

In many African cultures, there is this belief 'that there are some diseases that western medicine cannot treat and therefore need' (White, 2015, p. 1) traditional approaches. Thus a lot was revealed when participants were asked whether they have knowledge of any traditional remedy or herbs that can be used in treating COVID-19. The variety of herbs and concoctions suggested by participants as a possible treatment or preventive remedy for COVID-19 disease was a clear indication of the popularity of traditional herbs amongst the participants (including those who profess adherence to mainstream religion) and of how some participants were deep-rooted in their cultures. It is likely that the unavailability and high cost of allopathic medical healthcare and pharmaceutical products have 'made African traditional medicine becomes increasingly popular' (Kofi-Tsekpo, 2004) and also affordable (Omonzejele, 2008). According to WHO Africa (2001, para. 2), 'more than 80% of the people in the Region continued to rely on it for their health care needs.' With this total trust in traditional herbs, it can be understood why some participants in this study said their culture's beliefs about the origin of the disease is that it is the manifestation of evil – invoked through rituals, amongst other practices – which means only herbs can be used to treat these cases.

It would appear the presence in the sample of this study of a large number of individuals who profess to be either Christians or Muslims and whose faith may abhor the sanction of certain cultural practices continue to have an influence on the responses of participants throughout this study, and ultimately the results are seen. In this particular case, it would seem the participants might have chosen to live according to the teachings of their religions instead of living 'in accordance with the values and norms of the traditions of [their] society' (Iroegbu, 2005, p. 82, cited in White, 2015, p. 2); norms and values which could have, perhaps, encouraged them to use some traditional protective methods against diseases such as charms, amulets, etc.; as none of the

participants accepted that they or anyone else they may know had used these objects to protect against diseases, including COVID-19. Another way of looking at this result is simply to conclude that such practices might not have been common amongst the participants who took part in this study; which further leads us to question whether the result would have been different had the study been carried out in a typical pristine community, with recognised traditional ways of doing things – using a larger sample size? This may be a subject for further research.

Not everybody doubts the existence of the COVID-19 virus. For those who believe that COVID-19 exists and would consider taking health-seeking action if they were to be infected, many are likely to initially resort to traditional herbal treatment and other traditional methods, which may include meeting a herbalist to perform certain rites such as offering sacrifices to the gods or deities and consulting ancestors to assuage their anger, before consulting a doctor in the hospital, because traditional treatments are available and affordable (Matiashe, 2021). This was the case in Zimbabwe, where the majority of the people ‘seem to have more faith and trust in home remedies to prevent and treat Covid-19 related illnesses due to vaccine disinformation and skepticism’ (Matiashe, para. 5 quoting Itai Rusike). However, this seems to not be the case with the participants of this study, as none of them has engaged in these practices or known of any COVID-19 case that was treated through consulting of mediums, ancestors, and offering sacrifices to gods or deities. Again, the question can be asked if the strong presence of Christians or adherents of mainstream religious faith in the sample could have accounted for this outcome

The mixed results coming from the question that asked what participants plan to do to protect themselves and family against COVID-19 now and in future pandemics are indicative of the varying degrees to which participants who participated in this study are prepared to implement their own personal decisions, irrespective of what the government and other stakeholders think is the right thing to do. This seemingly reflects the general mood in most parts of the country regarding the COVID-19 virus and may have implications for education campaigns to promote communal understanding of any future pandemic.

The responses resulting from the analysis of data regarding whether participants think they are respecting the preventive measures put in place by the government to stop the spread of COVID-19 were almost split into two equal parts between those who respect or have respected these measures and those who do not or have never. And the reasons given for not respecting the measures are as varied as the individuals who provided the responses and have implications for education campaigns against future pandemics, not only for the communities that participated in the study, but lessons can be learnt for other parts of the country. The fact that participants said the reason for not respecting the measures was that the virus does not exist in Cameroon and is not known to the culture; and also their thinking that respecting the measures does not prevent the disease, should keep those whose responsibility is to educate the population, especially in communities which took part in this study, against this and future pandemics a bit concerned; especially as a number of the participants said their culture is against the use of face masks.

Cameroon is currently struggling with convincing the population to vaccinate against the COVID-19 virus. This study has added to existing voices why this could be so, at least as far as the participants in the communities which took part in the study are concerned. The ineffectiveness and safety of the vaccines, as well as ‘transparency’ in the management of information and other resources, remain the primordial reasons. This reason is not new, as the literature is rife with arguments and counterarguments on this, and the local communities that were involved in this study seemed not to be spared from the controversy. The reasons participants gave for not vaccinating all point to the doubt and mistrust they have about the vaccine, one of which is that Africans will be targeted as “guinea pigs” for drugs and vaccine development’ (Titanji, 2020, p. 211; see also Sippy, 2021). These reasons are not peculiar to these communities, though, but their being continuously re-echoed suggests that those responsible for promoting the initiative must revisit their education and information management strategy, not only for the on-going pandemic but also for future ones.

4. Conclusion

The researchers were motivated to carry out this study by the need to know the cultural perspectives of inhabitants of local communities in Yaoundé municipality on COVID-19 existence, origins, and remedies, and the impact this could have on the uptake of vaccines and other government actions to stem the spread of the virus. In other words, we were interested in the unique methods and approaches that people in these communities have used or are currently using to fight the pandemic – individually or collectively; and whether their knowledge of COVID-19 issues is influenced in any way by their cultural perceptions (the typical native environmental influence) or worldviews.

The current COVID-19 pandemic has been a major challenge to countries across the world with overwhelming infection and mortality rates, but the global community has risen to the challenge with a firm determination. These efforts have led to the development of a number of vaccines, although there is yet to be an effective cure for the virus. We argue that further efforts to manage the virus now and in the future should not only be limited to the scientific community – local communities need to be engaged in their own way in the process. Within the context of this proposition, we envisage what individuals in local communities

think of the existence and origins of the COVID-19 virus, whether they think the virus exists at all, how they think it can be eradicated, the measures they are prepared to take; as well as their cultural perceptions relating to diseases in general, and the virus in particular, can inform their attitudes towards any government's action to fight the virus, now and in future pandemics. This suggests the importance of understanding behaviour.

This study aligns with other studies that are aimed at understanding the COVID-19 pandemic in Cameroon through the study of human behaviour and their response to the pandemic. It especially examines the knowledge, attitudes, and practices of individuals as they approach the COVID-19 pandemic in their communities. It pushes the frontiers of knowledge within the social sciences, including education, because it reflects on how different cultural perceptions affect health-related behaviours, especially as it relates to the pandemic; and views beliefs and practices (behaviours) as embedded within individuals' traditional or cultural world views or perspectives – which could make the management of pandemics like the COVID-19 a challenge – now and in the future.

The need to understand human behaviour during a pandemic with a potential social impact like the current COVID-19 pandemic cannot be overstressed. There is no gainsaying the fact that science can help prevent future pandemics; nevertheless, understanding individual behaviours can prove critical in managing future pandemics because understanding human behaviour is a prerequisite to change behaviour and improve health practices. Cameroon is currently struggling with convincing the population to vaccinate against the COVID-19 virus – and this challenge has a behavioural dimension to it. This study has added to existing voices on why this could be so, at least as far as the participants in the communities which took part in the study are concerned. Peoples' attitudes regarding the effectiveness and safety of the vaccines, as well as 'transparency' in the management of information and other resources, appear to be some of the reasons. Having knowledge of some of these reasons can be of immense help to stakeholders managing information within the health system, and this includes the education sector.

Efforts to fight future and similar pandemics could borrow some lessons from this study, in spite of the small sample used. The fact that participants said the reason for not respecting barrier measures was that the virus does not exist in Cameroon and is not known to their culture; and also their thinking that respecting the measures does not prevent the disease, should keep stakeholders with the responsibility to educate the population during health emergencies a bit concerned; especially as a number of the participants said their culture is against the use of face masks.

Although the majority agreed that COVID-19 exists, responses from other related questions showed participants repeatedly saying the virus does not exist as they elaborated on their answers to questions such as whether they respect COVID-19 barrier measures and, if no, why not? Responses such as Africa is less affected by the virus are indicative of the unseriousness with which some participants take the virus. Even when asked about the rate of COVID infections and deaths recorded in Cameroon, participants were still tempted to deny the existence of the virus as the reason why they do not care to know. Again, the small number of participants claiming that they have never heard of COVID-19 is a cause for concern as it raises even bigger issues than what is viewed at the surface. It may suggest a profound lack of interest in COVID-19 issues, and this can extend to future pandemics; all citizens ought to be carried along during a period of public health emergency like the current pandemic using all channels available, including consulting with local communities. This may also mean that the education messages (and intended government actions) sent out during a period like this must be as unambiguous as possible since the messages can easily be misinterpreted and create a situation that may make it difficult for government health education programmes to succeed.

Despite the interesting findings that have emanated from this study, there exist some limitations which should be discussed as well. First, the generalisability of the results is limited due to the relatively small sample that we used. A larger sample size could have made it possible for us to generalise the finding beyond the communities and individuals who participated in this study. However, we assume that other communities in Yaoundé and, maybe, Cameroon could still benefit from these results, one way or the other. In hindsight, we now think that it would have been beneficial to survey pristine communities; that is, those with purely traditional ways of doing things, and to involve individuals with limited education but who profess deep attachment to their culture as their opinions would have been different on issues related to COVID-19 virus, and on diseases as a whole. These factors should be considered in similar studies in the future. In spite of all the identified 'shortcomings', we do not think that these issues have affected the results of this study in any significant way.

Based on the findings of this study and the conclusions reached, the following recommendations are made:

- 1) The government and other health stakeholders should always endeavour to carry along all citizens during pandemics using all channels available, including using local languages, to convey health education messages
- 2) Health education messages sent out during any health emergency should be as unambiguous as possible by aligning with the prevailing government actions in order to guarantee the success of the government's health programmes.
- 3) Studies should be carried out to ascertain the efficacy of some of the herbal treatments mentioned in this paper against COVID-19.

Funding: This research received no external funding.

Conflicts of Interest: The authors declare no conflict of interest.

Publisher's Note: All claims expressed in this article are solely those of the authors and do not necessarily represent those of their affiliated organizations, or those of the publisher, the editors and the reviewers.

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