OPINION ARTICLE

Curbing the COVID-19 Pandemic in South Africa: Taking Firmer, Aggressive Measures and Discarding Fallacy Theories

Daniel T. Goon1,2* and Uchenna B. Okafor2

1 Department of Public Health, University of Fort Hare, East London, South Africa
2 Department of Nursing Science, University of Fort Hare, East London, South Africa

Abstract: The ravaging Coronavirus Disease (COVID-19) pandemic is nearly halting global activities. Disturbingly, many countries fear and continue to battle how to combat the epidemic amidst several contextual challenges. In South Africa, amidst other measures, would the ‘lockdown’ approach help curb the trend of COVID-19? What fallacy are theories spreading against facts about COVID-19? Worried by the rising cases of COVID-19, the government proposed a ‘locked down’ approach. As of 02 June 2020, COVID-19 cases in South Africa rose to 35812, with 755 deaths recorded. There is a tendency for young people to defy rules. Young people should take the lockdown seriously and discard the unfounded theories or rumors about the virus. Only a collective, decisive and disciplined approach regarding the lockdown measure could reverse the upward trend of COVID-19 cases in South Africa. The collaborative efforts of the government, the private sector and the scientific community are necessary in this situation.

Keywords: Coronavirus, COVID-19, Spread, Misconceptions transmission, Pandemic, Measures.

1. INTRODUCTION

The novel Coronavirus (COVID-19) outbreak was first reported on 31 December 2019 in Wuhan, China. Preliminary investigation has linked the virus to a large seafood and live animal market in Wuhan, Hubei Province [1]; and it resembles a coronavirus from bats [2]. Sequel to the outbreak of the COVID-19, the Chinese Centre for Disease Control and Prevention identified the causative agent as ‘2019-nCoV’ and later as ‘SARS-CoV-2’ [3]. Phylogenetically, it is believed that SARS-CoV-2 is a pathogen, that has similar features to two reported zoonotic coronavirus epidemics, namely Severe Acute Respiratory Syndrome Coronavirus (SAR0CoV) in 2002, and the Middle East Respiratory Syndrome coronavirus (MERS-CoV) in 2012 [4]. Contrastingly, the current COVID-19 epidemic has characteristics of an influenza with alarming case fatality rates. The World Health Organization (WHO) declared COVID-19 as a global public health emergency on 30th January 2020 [5]. Furthermore, the WHO global risk assessment of COVID-19 is very high [6].

Like other common cold or influenza viruses, the COVID-19 mode of transmission is through droplets from a sneeze or cough which enter the recipient through the nose, mouth or eyes and attach to the mucous membranes; these droplets come from the secretions of people who are infected or who are carriers [7].

There is no evidence of faecal transmission of COVID-19. The signs and symptoms of COVID-19 at first mimic or characterize flu-like symptoms. It has been reported that the commonly reported symptoms are fever, cough, myalgia or fatigue, pneumonia, and complicated dyspnea [8 - 10]. Conversely, less commonly reported symptoms include headache, diarrhea, hemoptysis, runny nose, and phlegm-producing cough [8, 9]. Critical presentations of the disease include pneumonia, acute respiratory distress syndrome, multi-organ failure and eventually death [9]. The incubation period of COVID-19 can be two weeks or longer [11, 12]. The goal of this article is to highlight the measures undertaken by the South Africa government to curb the COVID-19, and the fallacy theories that relate to the behavioural tendencies among young people that might hinder their strict adherence to the measures to mitigate prevention and transmission.

2. MEASURES UNDERTAKEN

To date, while the rate of COVID-19 cases has slowed down in China, while other countries such as Italy, Spain, the United States of America (USA), the United Kingdom (UK), etcetera are reporting increasing infection rates and the death toll is surging exponentially. In South Africa, the first reported
case of COVID-19 was in KwaZulu Natal Province, and the 
Minister of Health, Mkhize, announced it on 5th March 2020 
[13]. From 5 - 28 March, there have been an exponential 
increase in the reported cases of the COVID-19 in the country. 
Consequently, the government declared a national state of 
disaster; they urged South Africans to observe simple hygiene 
rules of regular handwashing, social distancing, restricted 
public gatherings and meetings to less than 100 people. They 
also directed restaurants, shops, hubs, churches, mosques, etc. 
not to admit more than 50 persons at a time. Moreover, liquor 
stores’ operation times were prohibited to 18:00 hours. These 
measures were to curb person-to-person transmission and the 
spread of the virus. Worried by the rising cases of COVID-19 
in the country, and taking their cues from other countries, 
especially China, the government of South Africa announced a ‘lockdown’ approach for 21 days, starting at midnight on 26th 
March 2020. Based on the available global evidence, the 
lockdown approach versus the rate of infection, the 
government on the 9th April 2020, extends the lockdown to the 
end of April 2020. The lockdown strategy means people should 
stay at home, and refrain from non-essential movements. This 
Chinese model has proven to slow the spread of the COVID-19 
rate. In Wuhan, China, where the outbreak of the coronavirus 
began, now, few new infections have been reported; and their ‘lockdown’ has been lifted.

What did the Chinese do to reverse or rather halt the spread 
of the virus? In the heat of the epidemic in China, the people 
were encouraged to reduce contact, distance themselves from 
people infected with the virus and even from non-infected 
individuals [14]. The Chinese government further encouraged 
its citizens to stay at home and refrain from mass gatherings. 
Moreover, the government advised people to cancel, and in 
some cases, totally postpone large public events, amidst the 
closure of schools, universities, government offices, libraries, 
museums, and factories. Somehow, these measures worked to 
slow the rate of the virus from spreading through physical 
contact of persons.

Adopting the ‘lockdown’ measure, the President of South 
Africa stressed that the rising trend of COVID-19 in South 
Africa is worrying; and the country cannot contain the 
impending consequences of COVID-19, given that the country is 
already overburdened with a high prevalence of Human 
Immunodeficiency Virus (HIV), Tuberculosis (TB) and rising 
non-communicable diseases, which will constrain and 
overstretch the health care system further. Besides, given the 
high poverty level of the people, poor health resources and 
health accessibility in terms of institutional and geographical 
challenges, especially in rural settings, the lockdown approach 
which aims to prevent or possibly fatten the curve of 
COVID-19 spread in South Africa is a correct, wise, immediate 
health intervention or rather epidemiological decision at the 
moment. The COVID-19 global pandemic has changed the 
world’s economic, social, psychological and religious outlook. 
Seemingly, most of the world activities have now halted!

As of 2nd June 2020, the global statistics of COVID-19 
infections stood at over 6,194,533 million; and 376,320 deaths 
[6]. In South Africa, the rising cases of COVID-19 were 
35,812, and 755 deaths [6]. While the world waits for scientists 
to discover a cure for the COVID-19 infections, for now, non-
pharmaceutical interventions such as social distancing, regular 
handwashing, limiting unnecessary movement and social 
gatherings or events etcetera are crucial for the management 
of COVID-19. From a public health perspective, the upward 
trajectory of COVID-19 in African countries with weaker health 
systems is worrying. Although many African countries 
have expressed their readiness to manage COVID-19, much 
still needs to be done in terms of making available the rapid 
testing equipment, masks, and protective wear for health 
workers; furthermore, they need to ascertain the availability of 
health workers to treat and manage patients in hospitals.

Most countries in the world have adopted the Chinese 
model-lockdown to prevent and contain further spread of the 
 virus. In South Africa, as announced by the government, 
alongside with the lockdown, there will be further nationwide 
upscaling of testing, tracing, management and treatment. 
Fighting this scourge is a collective responsibility; the 
COVID-19 is a war that requires the effort of each individual. 
The behaviour of each person is important at this stage of the 
fight. The most important behaviour expected by South 
Africans is simple obedience this means obeying the ‘lockdown’ and staying at home. Staying at home would 
prevent further transmission of the virus from person-to-
person; and by so doing, it would slow the rate of COVID-19 
infections. In this context, it is imperative to dispel certain 
unfounded fallacy theories and beliefs that would affect the 
level of adherence to the lockdown strategy. In other words, 
what are the misconceptions or misinformation versus facts 
regarding the COVID-19?

3. DISCARDING FALLACY THEORIES

Several unfounded theories about the COVID-19 pandemic 
are spreading in the social media and among individuals. The 
first fallacy theory is that young people cannot acquire the 
disease nor die from it. This is unscientific and a blatant lie. 
Young people can get the disease, transmit the virus and die 
from it. Youths respond with arrogance and a bulletproof 
attitude as if they are immune to disease and death. They seem 
to discount any vulnerability. Instead, they should develop a 
positive attitude and behaviour towards the COVID-19 
prevention approach. It is a simple thing for them to do observe 
social distance, regularly wash their hands, and refrain from 
unnecessary movement. The model adopted by the Chinese, 
which was to stop all movement in and out of an area until 
every trace of the virus is defeated, must not be downplayed. 
Evidence from China has demonstrated that the lockdown 
strategy has a significant effect in containing the spread of 
COVID-19. Fighting this scourge is a collective responsibility; the 
COVID-19 is a war that requires the effort of each individual. 
The behaviour of each person is important at this stage of the 
fight. The most important behaviour expected by South 
Africans is simple obedience this means obeying the 
‘lockdown’ and staying at home. Staying at home would 
prevent further transmission of the virus from person-to-
person; and by so doing, it would slow the rate of COVID-19 
infections. In this context, it is imperative to dispel certain 
unfounded fallacy theories and beliefs that would affect the 
level of adherence to the lockdown strategy. In other words, 
what are the misconceptions or misinformation versus facts 
regarding the COVID-19?

As of 2nd June 2020, the global statistics of COVID-19 
infections stood at over 6,194,533 million; and 376,320 deaths 
[6]. In South Africa, the rising cases of COVID-19 were 
35,812, and 755 deaths [6]. While the world waits for scientists 
to discover a cure for the COVID-19 infections, for now, non-
pharmaceutical interventions such as social distancing, regular 
handwashing, limiting unnecessary movement and social 
gatherings or events etcetera are crucial for the management 
of COVID-19. From a public health perspective, the upward 
trajectory of COVID-19 in African countries with weaker health 
systems is worrying. Although many African countries 
have expressed their readiness to manage COVID-19, much 
still needs to be done in terms of making available the rapid 
testing equipment, masks, and protective wear for health 
workers; furthermore, they need to ascertain the availability of 
health workers to treat and manage patients in hospitals.

Most countries in the world have adopted the Chinese 
model-lockdown to prevent and contain further spread of the 
 virus. In South Africa, as announced by the government, 
alongside with the lockdown, there will be further nationwide 
upscaling of testing, tracing, management and treatment. 
Fighting this scourge is a collective responsibility; the 
COVID-19 is a war that requires the effort of each individual. 
The behaviour of each person is important at this stage of the 
fight. The most important behaviour expected by South 
Africans is simple obedience this means obeying the ‘lockdown’ and staying at home. Staying at home would 
prevent further transmission of the virus from person-to-
person; and by so doing, it would slow the rate of COVID-19 
infections. In this context, it is imperative to dispel certain 
unfounded fallacy theories and beliefs that would affect the 
level of adherence to the lockdown strategy. In other words, 
what are the misconceptions or misinformation versus facts 
regarding the COVID-19?

3. DISCARDING FALLACY THEORIES

Several unfounded theories about the COVID-19 pandemic 
are spreading in the social media and among individuals. The 
first fallacy theory is that young people cannot acquire the 
disease nor die from it. This is unscientific and a blatant lie. 
Young people can get the disease, transmit the virus and die 
from it. Youths respond with arrogance and a bulletproof 
attitude as if they are immune to disease and death. They seem 
to discount any vulnerability. Instead, they should develop a 
positive attitude and behaviour towards the COVID-19 
prevention approach. It is a simple thing for them to do observe 
social distance, regularly wash their hands, and refrain from 
unnecessary movement. The model adopted by the Chinese, 
which was to stop all movement in and out of an area until 
every trace of the virus is defeated, must not be downplayed. 
Evidence from China has demonstrated that the lockdown 
strategy has a significant effect in containing the spread of 
COVID-19. Fighting this scourge is a collective responsibility; the 
COVID-19 is a war that requires the effort of each individual. 
The behaviour of each person is important at this stage of the 
fight. The most important behaviour expected by South 
Africans is simple obedience this means obeying the 
‘lockdown’ and staying at home. Staying at home would 
prevent further transmission of the virus from person-to-
person; and by so doing, it would slow the rate of COVID-19 
infections. In this context, it is imperative to dispel certain 
unfounded fallacy theories and beliefs that would affect the 
level of adherence to the lockdown strategy. In other words, 
what are the misconceptions or misinformation versus facts 
regarding the COVID-19?

3. DISCARDING FALLACY THEORIES
countries, among the old and young. To buttress this, on Friday 27th March 2020, South Africa recorded its first two deaths of COVID-19 who were aged 28 and 48 years, respectively. They were young and middle aged. Clinical evidence shows that most patients infected by the COVID-19 are those with underlying diseases (comorbidities) such as diabetes, hypertension, cardiovascular disease, chronic obstructive pulmonary disease, malignancy and chronic liver diseases [9]. However, this does not mean that young people are immune to infection. Whether one is immunosuppressed or not, you are at risk of COVID-19 infection through human-to-human transmission. Again, health workers as well as carers are susceptible to the risk of contracting the virus, regardless of the age group; the same applies to patients in long-term care facilities [7]. Thus, aggressive health education advocacy and campaigns are needed to clarify the negative theory that young people cannot contract nor die from the disease, and that only the elderly persons and those with immunocompromised and chronic illnesses are susceptible to the virus.

Additionally, there is a misrepresentation of facts that particular races are immune to COVID-19. The worldwide statistics across countries have shown that the scourge affects all races. The only evidence so far available from the statistics of patients infected by the virus points to a particular gender trend, which suggests that males are mostly affected by the virus [12, 14, 15]. These gendered infection rates of COVID-19 need further elucidation as the research into the various aspects of the COVID-19 continues.

It is also baffling to note that false and unfounded scientific tales abound; one of these unfounded tales that is misinforming the public is that of COVID-19 not being able to thrive in hot temperatures. The ‘tale’ making its rounds states that the virus shrinks if exposed to temperatures above 65 degrees for longer than 15 minutes. If exposed three times for 15 minutes at a time it loses its potency. Whether temperature affects the transmission of COVID-19 is still inconclusive scientific debate. Other studies have alluded to the association of temperature and the transmission of the virus. Another study indicates varying temperatures (lower or higher) could have a positive influence in lowering the virus. A study of Wang et al. [16] examines the daily average, minimum and maximum temperatures of the daily confirmed 429 new cases of COVID-19 officially reported in China and overseas countries, from January 20th to February 4th, 2020; and the results provide relative evidence to the dose-response relationship between temperature and the transmission of the virus. Another study indicates varying temperatures (lower or higher) could have a positive influence in lowering the incidence of the COVID-19 [17]. Whatever the scientific evidence on the effect of temperature on COVID-19 transmission, the glaring picture worldwide points to the fact that the virus is no respecter of any particular degree of temperature. Several countries between 30N and 30S, which experience higher daily temperature averages than elsewhere in the world, all reported positive cases of COVID-19, notwithstanding the alarming cases witnessed in several European countries and the USA [18]. More research is required to clarify the impact of temperature on COVID-19 and to guide treatment and prevention efforts. Therefore, given the asymptomatic nature of the virus, which renders its outbreak much harder to control, the onus lies on each individual to obey the seemingly difficult ‘stay-at-home’ directive. This measure is aimed at reducing person-to-person transmission of the virus.

The WHO has declared COVID-19 as a global pandemic. Every continent is affected. As of now, 227 countries are affected by the pandemic [6]. In view of these misguided, misinformed people hearing unfounded theories on the COVID-19, it is very important that the media play a crucial role. Spreading false information about the COVID-19 will dispel credible sources and creates public confusion, which may render efforts in containing the spread of the virus ineffective and might accelerate the further spread of the virus [19]. Thus, the media should provide accurate news and information that would help individuals in the society to take informed decisions anchored by the government’s plea regarding “social distancing”, hugs, handshakes and hand-washing principles. Social distancing has proven to be effective in reducing person to person transmission and thus decreasing morbidity and mortality in fighting previous epidemics [20 - 22].

**CONCLUSION**

The fundamental goal of a lockdown measure in an outbreak of infection is to prevent people with asymptomatic infections from transmission of the disease to other persons who are not infected [14]. Drawing from China, the South African government could equally utilise the lockdown strategy to help slow the incidence of COVID-19 infections, and to similarly, within the lockdown period to provide information and education campaigns/advocacy, screening, contact tracing, isolation, quarantine and medical management of the disease to achieve the desired objective of containment and the spread of the virus [14]. Of course, this model draws support from responses to previous outbreaks, which have proved decreasing infections rates alongside social distancing policies and other epidemiological control initiatives to curb transmission [23].

Only our collective behaviour as a nation will stop the COVID-19 disease. This requires an aggressive response, by the government and the populace. The aggressive strategy entails the government enforcing the lockdown strategy to limit unnecessary movement. Similarly, people must act swiftly they should observe regular hand washing, refrain from nose, eyes and mouth touching without washing their hands, obey the social distancing principle, limit non-essential movement and simply stay at home. The manner in which the COVID-19 is spreading, and taking clues from other countries, especially China, reducing public life or social events such as meetings, conferences, parties, church activities, burials, marriages etcetera may drastically halt the spread of the virus from anyone except members of one’s household. This is not the time to play. We have to take a collective, decisive and disciplined decision as a nation to flatten the curve of COVID-19 rate in South Africa. This shared problem requires the collaborative efforts of the government, the private sector, and the scientific community. Working together, the virus will definitely be defeated in the not so distant future.
LIST OF ABBREVIATIONS

COVID = Coronavirus Disease
HIV = Human Immunodeficiency Virus
MERS-CoV = Middle East Respiratory Syndrome Coronavirus
SARS-CoV = Severe Acute Respiratory Syndrome Coronavirus
TB = Tuberculosis
WHO = World Health Organization

CONFLICT OF INTEREST

The authors declared no conflict of interest, financial or otherwise.

ACKNOWLEDGEMENTS

Declared none.

REFERENCES
