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OPINION ARTICLE

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

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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.

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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

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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 Immunodefficiency 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 35812, 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. Young people should also take ownership and exhibit a positive attitude and behaviour towards the further spread of the virus. Young people can play an important role in educating the people around them regarding the pressing need to curb the spread of the virus in the communities in which they live.

Another anecdotal fallacy theory is that only older, and persons with immunocompromised and underlying illness are vulnerable to COVID-19, and could die from the disease. COVID-19 is claiming lives raveningly on a daily basis across

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 COVID-19 in decreasing transmission rate. For example, the 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 controlinitiatives 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 Immunodefficiency Virus
MERS-CoV	=	Middle East Respiratory Syndrome Coronavirus
SAR0CoV	=	Severe Acute Respiratory Syndrome Coronavirus
TB	=	Tuberculosis
WHO	=	World Health Organization

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