

Patterns of Development of COVID-19 in Low-and Middle-Income Countries: Suggested Psychological Intervention Strategies

Dr Geoffrey Wango¹, Prof.Gidraph Wairire² and Dr Charles Kimamo³

¹Psychology Department, University Of Nairobi, Nairobi, Kenya,

²Department of Sociology and Social Work, University Of Nairobi, Nairobi, Kenya,

³Psychology Department, University Of Nairobi, Nairobi, Kenya,

Corresponding Author: Dr Geoffrey Wango

ABSTRACT: Since COVID-19 was announced in China in December 2019, the pandemic has become a central focus all over the World. Despite the extent of the crisis with initial high death rates in China, Italy and Spain, there exists a wishful fantasy in the low-and middle- income countries that the population will be somehow protected from the extreme anguish and pain. This is even though the more developing countries have tended to have critical problems such as perennial drought, cancer, political instability and war, poverty and ill health, including communicable disease and HIV/AIDS. Although other issues have been placed in the periphery amidst the corona epidemic, there is an obvious need to identify and comprehend in psychological terms various intervention strategies to deal with the pandemic. Besides, some of the similarities in dealing with the pandemic are astonishing. Most of these countries are former colonies and display common patterns aimed at controlling the population using the military forces, including the adoption of curfews and lockdowns. This builds up high levels of intolerable pressure and a depressed attitude, often culminating in stress, fear and anxiety. This paper proposes a comprehensive conceptual approach to this phenomenon and the underlying psychological concerns.

KEYWORDS: COVID-19, Low-Income Countries, Psychological Intervention Strategies

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I. BACKGROUND OF THE PROBLEM: A FOCUS OF COVID-19 IN DEVELOPING COUNTRIES

Since Corona Virus Disease 2019 (COVID-19) was announced in China in December 2019, the pandemic has become a central focus all over the World. Despite the extent of the crisis with initial high death rates in China, Italy and Spain, there exists a wishful fantasy in the low- and middle- income countries in Africa and Asia that the population will somehow be protected from the extreme suffering and pain as a result of COVID-19. Besides, the more developing countries with low income have tended to have critical problems of poverty and health, drugs and medical supplies, and various diseases including malaria, communicable disease and HIV/AIDS (World Health Organization, 2019). Mills and Hsu (2014) using the World Health Organization (WHO, 2010) argues that 75 of these countries have the highest burden of maternal and child deaths with an estimated 7.6 million children and 287 000 mothers dying every year. Indeed, the World Health Organization 2019 report (WHO, 2019) states that in low-income countries one woman in 41 dies from maternal causes and that life expectancy at birth is at 62.7 years, and that is 18.1 years lower than higher-income countries at 80.7. A COVID-19 outburst in these countries can be catastrophic.

Stringent measures to control COVID-19 have been instituted in various countries (Tabari, Amini, Moghadami, & Moosavi, 2020). These include restricted movement, lockdowns, business and work disruptions, travel restrictions (within and without certain countries or regions), school and closures and other containment measures have a sudden and drastic impact on the economy and subsequently, on the workers. In the developing countries with an estimate of over 70 per cent of workers in the informal sector (Kenya's informal labourers estimated at 83.6% (Evans, 2020)), the pandemic will have an intensive impact on ordinary people as workers. The intensity of COVID-19 and the effects on the workforce in low-and middle-income countries has been aptly captured by the International Labour Organisation (ILO, 2020:1):

Particularly in low- and middle-income countries, hard-hit sectors have a high proportion of workers in informal employment and workers with limited access to health services and social protection. Without

appropriate policy measures, workers face a high risk of falling into poverty and will experience more enormous challenges in regaining their livelihoods during the recovery period.

The ILO (2020) highlights the fact that in the health and other sectors, the virus will affect women disproportionately. The profound and far-reaching impacts of informal employment are highlighted in the International Labour Organisation (ILO, 2020:6) report:

Around 2 billion people work informally, most of them in emerging and developing countries. The informal economy contributes to jobs, incomes and livelihoods, and in low- and middle-income countries, it plays a significant economic role. However, informal economy workers lack the essential protection that formal jobs usually provide, including social protection coverage. They are also disadvantaged in access to health-care services and have no income replacement if they stop working in case of sickness. Informal workers in urban areas also tend to work in economic sectors that not only carry a high risk of virus infection but are also directly impacted by lockdown measures; this concerns waste recyclers, street vendors and food servers, construction workers, transport workers and domestic workers.

Although other issues have been placed in the periphery amidst the Corona epidemic, there is an obvious need to identify various intervention strategies to assist the bulk of the people during and after the pandemic. Besides, some of the similarities and differences in dealing with the pandemic are astonishing. It is commonly accepted that health care in developed countries is a top priority for national development goals with distinct improved medical services. This is unlike the developing countries which have to contend with more diverse and devastating social issues including poverty, perennial droughts, malaria, cancer, HIV /AIDS, political instability and civil war, bad governance and corruption. This is even though a majority of people in rural areas and others in informal urban settlements are highly disadvantaged in terms of economic livelihood and inadequate health care services.

There is, therefore, the possible lethal outcome of a vast epidemic such as COVID-19. At the same time, COVID-19 has unique characteristics and dynamics such as the vast spread, in contrast to other communicable diseases (World Health Organization, 2020a; 2020b; 2020c; 2020d; 2020e). In retrospect, most of the developing countries in Africa and Asia are former colonies. They tend to display common patterns aimed at controlling the population such as the closure of educational and religious institutions (including schools, colleges and universities), decongesting prisons, adoption of alternative court mechanism, and suspension of local and international flights and closure of other entry points. The use of the police and military forces to enforce other measures adopted for the control of COVID-19 such as curfews, wearing of masks and lockdowns is a highly predominant feature. In the Kenyan situation, some measures undertaken appear to disrupt the social fabric of most communities and family relations. Social distancing is a good example that has curtailed some traditional practices and procedures richly observed by many families, groups and communities in their social lives. Essential ceremonies and services that accompany communal events like marriages, worship, funerals, and other social gatherings have all been affected through imposed measures to ensure only a handful of people attend. The unintended outcomes of the measures above, therefore, tend to create new ways of living which many are struggling to cope up with. This builds up high levels of intolerable pressure and a depressed attitude, often culminating in stress, fear, anxiety and helplessness.

COVID-19 has spread worldwide, and as of 12th June 2020 in Brazil (41,162), China (4,634), France (29,346), Italy (34,223), Spain (27,136), United Kingdom (41,481) and the United States of America (116,420), ([www.worldometers.info > coronavirus > 2020](http://www.worldometers.info/coronavirus/2020)). Several cases of infection and deaths have been reported among clinical health care providers who came into direct contact with infected patients in clinical settings. In this regard, precautions have been implemented in health care facilities, including isolation of infected patients and the use of personal protective equipment (PPE) such as respirator-type masks, gloves and gowns in various setting including healthcare, home care settings and during the handling of cargo (World Health Organization, 2020a; 2020b; 2020c; 2020d; 2020e). Besides, people outside medical settings are now required to strictly follow similar protective measures, including wearing of face masks, frequent washing of hands and use of sanitizers. Some of these measures like wearing of the face masks have been noticed to yield social discomfort which again might bring about stress and at the same time expose concerned individuals to the very infection that they were meant to protect themselves.

While various interventions in times of crisis continue to represent essential interferences, few published studies have examined the psychological effects of various programmes instituted in various countries, particularly the low - and middle-income countries. This is because these nations have critical concerns, even amidst a crisis such as COVID-19 (Tabari et al., 2020). Mills and Hsu (2014:434) sum it up as follows:

Key features that affect the relevance of policies include rampant poverty; a high proportion of the population in the informal sector; relative weakness of political and social institutions including governance structures; limited management capacity in the public sector, and vulnerability to influence by agencies external to the country.

A significant purpose of this paper is, therefore, to integrate clinical and theoretical knowledge using available empirical evidence. This is the reason as to why the discussions are accompanied by and illustrated with case studies taking into consideration that there is a need for more research on COVID-19. However, this paper goes far beyond simple integration of psychological and medical knowledge and formulates unique dynamics and processes of dealing with the epidemic grounded on exceptional circumstances and in particular knowledge of psychological counselling in developing countries. This includes the adoption of a phenomenological perspective, as outlined below.

II. PURPOSE AND METHODOLOGY

This paper is a discussion platform on ways to assist people to cope with and adjust to the COVID-19 pandemic. The emphasis on developing countries is to offer governments and policymakers evidenced-based strategies to improve both clinical and public intervention systems. The paper aims at (1) identifying various intervention strategies to cope with psychological issues in adjusting to the crisis; and, (2) reducing the risk of developing distress, thus improving the well-being of the citizenry by promoting practical preventive behaviours. The phenomenological reflection approach chosen enables a holistic understanding of the human experience of COVID-19 with content in context-setting (Giorgi, 1985; Van Manen, 2014). The suggested individual, family, and interpersonal coping with the COVID-19 (*Appendix I*) are derived from these objectives.

III. THEORETICAL PERSPECTIVE

The conceptual perspective in this paper adopts the phenomenological approach (Finlay, 2011; Merleau-Ponty, 2003; Van Manen, 2014) in a bid to offer a comprehensive phenomenological model that contributes to the dynamics of the situation. Phenomenology is a qualitative research method that seeks to explain in detail the essence, meaning and structure of people's lived experiences (Finlay, 2011; Merleau-Ponty, 2003; Neubauer, Witkp & Varpio, 2019; Van Manen, 2014). It seeks to describe the phenomenon by exploring the perspective of those who have experienced it. The approach begins with a general assessment of the situation, acquaintance and understanding of the dynamics of the relations involving a variety of participants, namely the citizenry. Schematic assessment using the phenomenological model incorporates evaluation and treatment, and these are incorporated with broader issues of assessment and therapy (Ashworth, 2003; Finlay, 2011; Merleau-Ponty, 2003). This integrative approach can be employed clinically to assess the circumstances and has specific implications for the treatment and evaluation of the effects of COVID-19. The extensive presentation and analysis of case studies, including the clinical vignettes of the processes, is aimed at pre-empting severe social-economic, political, psychological issues in the general population (Neubauer, Witkp & Varpio, 2019).

The case of developing countries is unique taking into consideration various circumstances such as public funding of health (Lu, Schneider, Gubbins et al., 2010) as well as targeted programmes (World Health Organization, 2019). Goudge, Russell, Gilson, Molyneux and Hanson (2009) highlight household experiences of ill-health and risk protection mechanisms which are quintessential in low-and middle-income countries (Gilson, 2011; Mills, 2014; Mills & Hsu, 2014; World Health Organization, 2019). As a result, the theoretical model turns to various conceptualizations that are applicable in dealing with disaster but specifically practical for COVID-19. This discussion culminates with the overall suggested prototypical of an integrative phenomenological model (Ashworth, 2003; Giorgi, 1985; Van Manen, 2014).

IV. PANDEMIC INTERVENTIONS AND IMPLICATIONS

The present study investigated the contact phenomenon in low-income countries as a consequence of the pandemic COVID-19. The study identified various measures aimed at closures, and these can be significantly associated with improved control of the COVID-19 in several countries. On 20th March 2020, India announced a lockdown thus limiting the movement of a population of an estimated 1.3 billion people, while in Kenya all schools and educational institutions were closed on 20th March 2020 and a dawn to dusk curfew instituted effective 27th March 2020. However, the citizenry belief in the appropriateness of the closure, and they are being able to conceptualize the pandemic and thus care for themselves and others during the closure is a matter requiring intensive investigation (Agence France-Press, 2020; Kiruga, 2020; Nation Team, 2020a; 2020b).

It is acceptable that the state measures, as outlined in Table 1 below, are significantly associated with a lower rate of going out behaviour. None the less, the risk of infection is still apparently high, and yet infection could be fatal.

Table 1 World Health Organization Strategic Objectives for COVID-19 Response Translated into Action

The World Health Organization objectives for COVID-19 response are to:	This is translated in various intervention measure as follows:
(1) Interrupting human-to-human transmission. This includes reducing secondary infections among close contacts and health workers, preventing transmission amplification events, and preventing international spread	<ul style="list-style-type: none"> - Reduced contacts such as hugging, kissing, shaking of hands - Closure of various institutions including school, colleges and universities - Office closures and working from home - Closure of social gatherings including places of worship such as Churches, Mosques and Temples - Restricted social gatherings including funerals, wedding ceremonies and other cultural activities - Social distancing including online shopping - Border closure and restrictions
(2) Identifying, isolating and caring for patients early, including providing optimized care for infected patients	<ul style="list-style-type: none"> - Self-isolation and self-quarantine - Mandatory quarantine of high-risk persons - Rapid identification and management of cases - Follow up of patient contact to prevent further infection - Isolation of COVID-19 confirmed cases for clinical care and treatment
(3) Addressing crucial unknowns regarding clinical severity, the extent of transmission and infection, treatment options, and accelerated development of diagnosis, therapeutics and vaccines.	<ul style="list-style-type: none"> - Awareness raising and risk communication to the general public - Washing of hands and other aspects of social hygiene - Use of sanitisers - Adoption of the use of face masks - Infection prevention in health centres - Implementation of health measures for travellers - Contact tracing of contacts with infected persons
(4) Minimising social and economic impact through multisectoral partnership	<ul style="list-style-type: none"> - Restricted movement such as curfews and other restrictions in highly affected areas and to protect the most vulnerable such as children and the aged as well as persons with previous illness

Adapted from: The World Health Organization (2020a, 2020b, 2020c, 2020d, 2020e)

WHO takes into consideration the exponential spread of the virus because a viral infection is unpredictable (WHO, 2020a; 2020b; 2020c; 2020d; 2020e). The question we pose in our discussion is: does the major population living in low- and middle- income countries (including the armed forces-police and military, the press, social workers and other professionals) comprehend the present circumstances particularly the healthy guidelines? (Warigi, 2020a; 2020b) Can they adhere to them to prevent the curb of COVID-19? In that case, what intervention strategies are required in various programmes and hence should be instituted? This has both medical and psychological implications.

It is also acceptable that an awareness campaign about COVID-19 has been initiated in several countries, including presidential addresses in respective countries. The aim of the campaigns and press briefing is to educate the general population on COVID-19 and thus broaden knowledge among the public on prevention and management strategies. However, it is imminent that critical patients with COVID-19 infection are admitted to hospitals, while suspected persons are quarantined. Patients in critical conditions end up in intensive care units (ICU) and incubation for an extended period. Admittedly, prolonged periods of staying at home for both adults and children, patients staying in the ICU environment and other precautionary measures are often associated with extreme mental and physical distress, emotional burnouts, disrupted or damaged social relationships and personal disorganisation leading to fear, anxiety, nightmares, personal instability and sometimes depression in some people.

Public health interventions are conventionally classified into pharmaceutical and non-pharmaceutical interventions (Mizumoto, Yamamoto, & Nishiura, 2013). Pharmaceutical interventions include the use of prescribed drugs as well as the possibility of the availability of a vaccine. For low- income and middle countries, there are distinct challenges in the economic and health dispensation (Gottret & Schieber, 2006; World Health

Organization, 2019). They include poverty, lack of access to clean water, war zones, various communicable diseases, restricted hospitals (few or none especially in rural areas), health constraints and other immediate concerns such as the availability of testing equipment for COVID-19. Several questions can be posted here: What is the quality of health services in low and middle- income countries? What is the ratio of doctor: patient or nurse: patient in developing countries? What is the level of preparedness, or put it another way, are there any ventilators, and other essential equipment? Are the low figures of COVID-19 in low-and middle-income countries a reflection of the low rate of spread of the virus, or inability to conduct necessary tests? Thus, for developing countries, intensive medical issues such as a prolonged stay in a hospital or ICU could be in the periphery. However, it has been established that prolonged intensive and respiratory therapy in the ICU is associated with severe psychological impairment and a high prevalence of post-traumatic stress disorder (Bashar, Vahedian-Azimi, Hajiesmaeili et al., 2018). Our view is that low and middle- income countries have to contend with prevention measures to prevent a pandemic with much worse catastrophe than the one witnessed in the more developing countries.

Non-pharmaceutical interventions (NPIs) are nonspecific but are applicable in a variety of settings, including school closures. It is crucial to put in place non-pharmaceutical interventions at the emergence of a pandemic since vaccine production and distribution takes time. Furthermore, the stock of antiviral agents tends to be limited by serious concerns over the spread of resistant strains. For instance, school closure is a critical component of public health interventions against an influenza pandemic (Cauchemez et al., 2009; Mizumoto, Yamamoto, & Nishiura, 2013). Table 2 summarizes the two intervention measures.

Table 2: Pandemic: Public health interventions

Interventions	Rationale	Programs	Behaviour	
			During daylight hours	During night hours
Non-pharmaceutical	To reduce contact among people and subsequent transmission of coronavirus disease	<ul style="list-style-type: none"> - School closures - Curfews - Social distancing - Wearing masks - Hand washing and sanitizing 	Go out only for essential services (e.g. hospital)	Strictly stay at home
Pharmaceutical	Treatment and management of infection	<ul style="list-style-type: none"> - Medicalisation - Therapy - Vaccines 	<ul style="list-style-type: none"> - Vaccinations - Taking medicine - Seeking medical services - Confinement while receiving treatment 	

Mitigation focuses on slowing, rather than but not necessarily on stopping the pandemic. As Njoroge (2020) observes, suppression aims at reversing the epidemic growth and thus reducing case numbers to low levels. This paper proposes that low-and middle-income countries should aim prevention and management of COVID-19 (World Health Organization, 2020a; 2020b; 2020c; 2020d; 2020e). Thus, cancelling mass gatherings, including religious ceremonies (churches, mosques and temples), schools and educational institutions and mass gatherings at funerals can help flatten the height of infection. Funerals in the more traditional societies is a time to say goodbye to 'one of us who has departed' (Finlay, 2011; Wango, 2013; 2015) and the massive crowds with uncoordinated social interactions would be an opportune time for the virus.

However, it has been noted that during a pandemic, children and adults tend to use the extra time gained from school and work respectively to attend to non-essential issues such as sports and games (indoors and outdoors), parties and such congregations (Nation Team, 2020c). These behaviours are critical as they can, and drastically influence the frequency of contacts and thus increase infection. This, in effect, dilutes the effectiveness of the closures. School children, for example, are known to act as maintenance hosts of influenza, and therefore the rationale for school closure is to reduce contact and subsequent transmission among children and in the social scene within the school setting (Mizumoto, Yamamoto, & Nishiura, 2013; Wu, Cowling, Lau et al., 2010). Table 3 gives a summary of behavioural tendencies that need to be encouraged among adults and children.

Table 3: Compensatory Behaviours, Need to Caution and Restrain Citizenry

Adults	Children
- Sports activities (gyms, golf, pool, group events)	- Playing and child games
- Shopping at supermarket/convenience store/malls	- Extra classes (coaching, language and tutorials)
- Holding parties / partying	- Indiscriminate sharing and exchange of items
- Eating out and drinking sprees (bars and restaurants)	- Partying (anniversaries and celebrations)
- Family gatherings	- Concerts, art and other artistic activities
- Family outings and get-together	- Family gathering
- Cinema (group movies)	- Family outings and get-together
- Religious and faith meetings (prayers/fellowships)	- Cinemas (group movies)
- Other activity (shaking of hands, hugging, kissing, lifts, meetings)	- Overnight stay away from home
	- Other activity (parents/adults hugging child/ren, playing with adults)

Most of these are compensatory behaviours aimed at compensating of contact (Cauchemez, Valleron, Boëlle et al., 2008; Gift, Palekar, Sodha et al. 2010; Mizumoto, Yamamoto, & Nishiura, 2013). These behaviours go beyond mere protest of government restriction and attention-seeking inclinations. They could also be negative attitude tendencies, while still others are attempts to express anger, and sometimes acts of despair. They also represent a serious struggle between life and its challenges. Yet various professionals, including psychologists, must notice the lack of a link between these carefree actions and COVID-19. Moreover, a clear understanding must be made that certain people are more vulnerable than others and therefore at severe risks such as older people and those with pre-existing medical conditions (such as diabetes, chronic respiratory disease, cardiovascular disease). However, most of the activities in *Table 3* involve older people, family members and certainly place them at risk of severe illness (Goudge et al., 2009). Subsequently, we must make earnest attempts to enable the citizenry to grasp a connection between healthy wellbeing (including taking safety precautions and adhering to restrictions) and illness (COVID-19). Thus, people should be guided to express their life wishes verbally in more favourable (desirable) direct open expressions such as the washing of hands, wearing masks and social distancing. This, in turn, enables dealing with fears and anxieties over COVID-19. Furthermore, the impulsive actions are being brought to the surface as new (and indeed appropriate) processes.

V. LIFTING THE LID: EXIT STRATEGY CONCEPTUAL APPROACHES

The COVID-19 virus will have to be over sooner or later, and thus governments will need an exit strategy. It is acceptable that governments all over the world have adopted extraordinary measures to prevent contagion and limit the outbreak. As a result, millions of lives have been significantly altered. The virus will have far broader effects on the social-political and economic fronts. Central governments will have to reckon with the loss of revenue, businesses coming to a halt, small businesses closing down and an anxious population worried of other broader repercussions including loss of loved ones and seemingly fast and unacceptable disposal of the dead. The self-employed people who form the bulk of the majority in the developing countries (over 70%) must be included in the economic recovery plan. Also, there are the psychosocial effects which are the primary concern of this paper. The psychosocial effects of widespread unemployment include poverty, loss of self-esteem, family strife, crime and depression. Depression is a red flag for suicide.

5.1. Restrictions and Lifting the Bans

Various behavioural -change interventions are aimed at reduced risk and prevention of the pandemic. In that case, improved adherence and compliance with the suggested preventive regulations will culminate with an end of the crisis. Nonetheless, governments have to consider the fact that the lockdown and movements will have to end soon, or one day. Many people may have been infected, and the government has to consider their health as well as that of their loved ones and caregivers. This includes medical teams and psycho-social carers for the accompanying social effects. In that case, there are laws as well as public opinion and their cooperation. In this regard, new laws, workplace regulations, public opinion and compliance of all stakeholders will be essential for the COVID-19 recovery process.

5.2. Preoccupation with Death or COVID-19

In low-and middle-income countries, there are perhaps more pressing issues that would appear to make it up for COVID-19. In several instances, various people would argue that an obsessive preoccupation with the issues that affect the more developing countries should be the signal hallmarks rather than COVID-19

(Macharia, 2020; Mwaniki, 2020; Siddiqi, Newell, & Robinson, 2005). It should be very clear that we are not undermining the seriousness of the illness. Indeed, a flare-up of COVID-19 in these countries as we have pointed out continuously in this paper would be of unimaginable magnitude. Nonetheless, the virus has disrupted significant processes such as the routine immunization services taking into consideration that some of the developing countries are tropical zones (Macharia, 2020; Mwaniki, 2020). In that case, the decreased demand for vaccination due to social distancing requirements is likely to expose children to avoidable infections. Again, low-and middle-income countries have to conduct a high balancing act as the systems are highly delicate and much wanting (Evans, 2020; ILO, 2020; Macharia, 2020; Mills, 2014; Mwaniki, 2020) including financial priorities (Lu, Schneider, Gubbins et al., 2010; Mills & Hsu, 2014).

The issues that affect developing countries are well documented by diverse scholars such as Gilson (2011), Mills (2014), and, Siddiqi, Newell and Robinson (2005). Nonetheless, the nature of the preoccupation with COVID-19 can take numerous forms including exaggerated thoughts about death caused by the new illness, escalating figures of the death toll in other countries as well as the general state of affairs in low-income families, informal urban settlements and in the far-flung rural regions. Psychologically, the preoccupation with death reflects defensive perceptions (Wango & Wairire, 2018). In contrast, more realistic perceptions of death, accompanied by appropriate expressions of fear and anxiety will be evident in logical discussions of the virus and its implications. Subsequently, there is an utmost need for the government to balance between the interventions (and response) of responding to COVID-19, while at the same time maintaining strategic social and health services.

5.3. *Alienation and Social and Emotional Responsiveness*

Individuals (and sometimes families) who suffer from medical illness (suicide, suicidal attempts and certain death), including unexplained syndromes, continue to report being stigmatized, marginalized or excluded by the public and health professionals (Engebretsen & Bjorbækmo, 2019, Nzioka, 2002; Wango & Wairire, 2018). In certain instances, people also withdraw or alienate self and family in a bid to be safe from infection of COVID-19. Nevertheless, in many instances, isolation and withdrawal from others are often due to lack of suitable and satisfying relations with others. Positive social distancing is, therefore, separate from walls of isolation. This is because while distancing is a precautionary measure as per World Health Organization guidelines to avoid infection such as the case of COVID-19, various forms of isolation can foster negative and inappropriate feelings like self-hate, anger and self-hurt, leading to helplessness, low self-esteem and despair.

The intervention measures, including quarantine, are not aimed at keeping a person from people or estrangement; instead, it is healthy. In that case, persons who are quarantined as well as many others confined at home must substitute sources of happiness and family support and by making more use of social networks including positive use of the phone and Internet. It is highly notable that patients have also expressed feelings of shame and guilt associated with their suffering, and of course the pain (Smith & Osborn, 2007; Trindade, Ferreira, & Pinto-Gouveia, 2018). No less important at this time is emotional expressiveness. This is significant to enable affected individuals to share their fears and concerns, as well as boost up assurance from self and others that all will be well in the end. Social-psychological support services are essential to avoid loss of impulse control, internal deterioration and hence improved mental health.

5.4. *Dealing with Denial, Opposition and Aggression*

Crowd control plays an integral role in the control of epidemics, such as COVID-19. As a rule, the state will not easily relinquish its role in safeguarding the citizenry, especially the weak and vulnerable populations. Persons who are aged and others susceptible to illness such as those suffering from other ailments as well as children have to be protected (Goudge et al., 2009). In the former colonies, police were instituted mainly to protect the colonizers and hence to the native population; they were one with the oppressors. Unfortunately, the police brutality has not changed much over the years even after independence, and even after several reforms in the police service have been instituted. Thus, the general populations often feel that some COVID-19 control measures and regulations such as curfew and lockdown are draconian and hence the urge to oppose them. For example, the police often insist that the public does not readily adhere to state laws and that forceful enforcement should be preferable. In that case, the curfews and lockdown are enforced using various forms of viciousness (Nation Team, 2020a; 2020b). This leads to the impending explosion of aggression strikes and viciousness in various directions, with the police beating the crowds, or those unable to comply and the public in retaliation fighting back in forms of strikes and war against the police (Agence France-Press, 2020; Kiruga, 2020; Warigi, 2020b).

Subsequently, three common problems to COVID-19 are denial, aggression and opposition. The majority of people in low-and middle-income countries are continuously misrepresented by their leaders, and thus they are unlikely to trust them even when they insist that the virus is real. Let us admit it, many people have to reckon with low-income earners and are wage earners; hence basic needs such as food, clothing and shelter

are topmost. The non-compliance and do not care attitude by the masses against COVID-19 control measures is not an act of pessimism but that the people are never sure about the government policies. The disapproval leads to inability, for instance, to adherence to safety precautions issued by the government as people interact freely leading to contact tracing of persons who have interacted with a COVID-19 victim. In many instances, most of the people will resist government regulations or attempt to circumvent them even though some are enlightened about COVID-19, while yet others may be completely ignorant of the repercussions of the corona disease. Spurious accusations are made that the people are oblivious of the danger, while others appear convinced that the threat is highly magnified when compared to the common good.

Faced with such opposition, rejection and aggression, social workers, and other professionals such as psychologist working in such a scenario must take a clear stance of defending the government from the ensuing onslaught. Professionals including social workers (counselling psychologists, social workers and sociologist, psychologists) must therefore actively fend off attacks on the government and strive to clarify the nature of the epidemic, corresponding government control measures, aims and policies. This is the same for other professional practitioners, including medical practitioners and media personnel. This is because only in rare cases can these and other professionals attack the government head-on. On the contrary, the objective is to gradually raise the awareness of mutual despair evident for instance in the acts of police brutality and the corresponding reactions by the masses who in most cases suffer the most (Nation Team, 2020a; 2020b; Wango, 2020; Warigi, 2020a; 2020b). This is to relieve the underlying aggression found in people and their disregard of state laws.

Hostility and aggression are inescapable characteristics of a people who feel oppressed by a system that they do not consider themselves to be part of, but apart from the system. This is evident of the governance systems of most developing countries. Tensions arise as the government and the people intrude upon each other based on previous mutual misunderstandings. The symbiotic relationship tends to escalate the angry feelings. Psychologists and therapists must, therefore, assist the people to deal with the crisis, including the anxiety and trauma as a result of the pandemic (Finlay, 2011; Wango, 2020). This is to bring about cathartic relief. The therapist (and frontline professionals, including social workers) must also express positive feelings to reinforce appropriate responses in the people. The therapist also assists individuals and families to sublimate and redirect their emotional energies to inappropriate paths to reach catharsis.

Important in this is the emphasis on the importance of human relationships to the frontline responders, including therapists and social workers and the law enforcers. Ideally, the masses and the law enforcers would not wish to reign in havoc on each other. The approach to be used by both parties should, as much as possible, be reconciliatory and non-confrontational. Both the front line officers (police, medical personal, social workers, media personnel) must see the common good of the intervention at hand for the control of COVID-19. There is tangible evidence that when the masses are handled with respect and dignity, they respond well and cases of unwarranted aggression are minimal. Similarly, when both the frontline responders and law enforcers handle each other positively and respect the specific roles that each plays, the outcomes are reflected in a positive response by the masses and subsequently, reduced levels of hostility.

VI. PSYCHOLOGICAL ASSESSMENT AND TREATMENT

The COVID-19 issues have been diagnosed within the overall framework of the phenomenological approach. This commenced with the World Health Organization guidelines for managing the problem from both biomedical and psychological points of view and their adoption by governments and by their subjects. While preventive and medical action is most important at all stages, emergency psychological crisis interventions for people affected by COVID-19 are also critical and have been outlined. These include direct interventions for patients, as well as indirect interventions for relatives, caregivers, and health care professionals.

6.1. Assessment of Risk

One of the central themes in this paper is the view that COVID-19 is related to certain specific circumstances and that these conditions can be manipulated to prevent the spread of the virus. Therefore, any assessment of risk and determination of treatment can be undertaken within certain settings. The application of the phenomenological model begins with a general and specific assessment of the situation. This, in turn, enables an enhanced understanding of the circumstances. Information, whether internal or external must be systematically categorized in four categories as follows: (1) attitudes towards life and death; (2) existing phenomenon such as poverty levels among the general populace – this determines their priorities such as food, clothing and shelter; (3) the application of state laws; and, (4) the effectiveness of various intervention strategies. Thus, in Kenya, for instance, the social media has tried to encourage people to interpret the restriction (dusk to dawn – 7.00 p.m to 5.00 a.m) named curfew to ‘care- for-you’ and quarantine to ‘quiet time’. This, in essence, resounds with the citizenry rather than the abhorrent government restriction.

The phenomenological model can be elaborated further by subdividing the information into such categories as social-economic factors, environment, family and personality (individual). These categories enable the state and others to enact laws and statutes that have more comprehensive applications and implications for the intended behavioural patterns; for example, quarantine including identifying persons, groups and regions most at risk. For low and middle-income countries, the threat of the virus is about livelihood as we lack the social-health-economic systems such as the economic stimulus relief package in the United States of America, or a publicly-funded healthcare system such as the National Health Service in the United Kingdom.

Table 4: Adjusting to the Pandemic as Critical Situation: Treatment and Reducing Risk

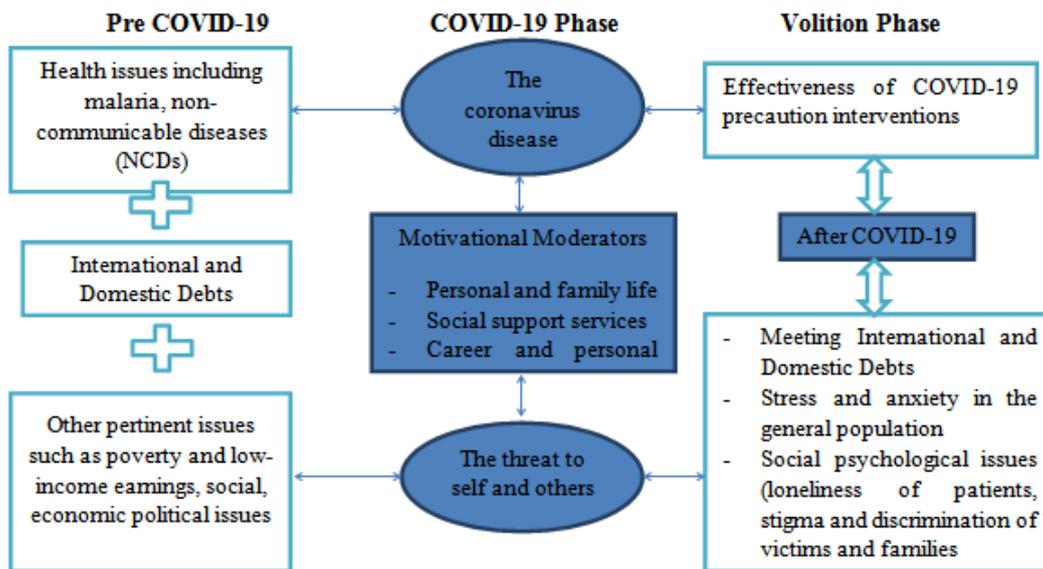
Category	Management / Intervention
Confirmed patients	- Clinical care for severe/acute respiratory infections - Quarantined awaiting recovery
Patients with suspected infection	- Adherence to treatment procedures to protect self and others
Quarantined family members	- A clear understanding that certain people are more vulnerable than others and therefore at severe risks such as older people and those with pre-existing medical conditions (such as diabetes, chronic respiratory disease, cardiovascular disease)
Health care workers	- Use of personal protective equipment in health and home settings - Testing
General population	- Obtain reliable information on COVID-19 - General hygiene - Safety and precautionary measures (social distancing) - Cleaning and fumigation - Reduced fears and anxiety arising out of the understanding of COVID-19

The use of various categories is both helpful and applicable both in pinpointing the problem and in treatment and should be aligned with the World Health Organization (2020f) standard regulation on mental health and psychosocial considerations during the COVID-19 outbreak. This is because even doctors and social health workers (psychological counsellors and others) are affected to the point of experiencing stress, anxiety, burnout out and compassionate fatigue (Khalid, Khalid, Qabajah, Barnard & Qushmaq, 2016).

6.2. Treatment and Therapy

The gist of the phenomenological model is in its application in the content and context. This is because it provides a structural balance rather than a new balance. Thus, the goal of treatment and therapy must involve the people and community concerned to attract solutions and thus strengthen their circumstances. For example, it would be prudent for the citizenry to comprehend COVID-19 and thus understand the need to wash their hands and sanitize continuously. Increasing the anxiety associated with COVID-19 through what may be perceived as haphazard and retrogressive laws is merely temporary measures, and they do not resolve the problem. Instead, solutions must also confront the other perceptions and attitudes held by the citizenry. To change people's attitudes and mindsets, we must transform their knowledge of the problem, and this is the case for COVID-19. Thus, a new understanding predominates rather than the repulsion of state laws. The narrative structure of COVID-19 in low and middle-income countries must take cognisance of the environmental factors, before, during and after COVID-19 in order to deal with pre-existing and arising notions. This is to strike a balance between the deterrent and promotive values, as demonstrated in Figure 1:

Figure 1: The Integrated COVID-19 Motivational Volition Model in Low and Middle-Income Countries



The improved status quo that enhances mutual understanding between the citizenry and the state is accomplished through open and direct discussions about COVID-19. In that case, there are reduced fears and stress, leading to less anxiety. Conversely, the state laws adopted in such circumstances must not lead to increased anxiety as a defence against impulsive rules. Such an initiative entails the acquisition of a variety of skills in personal and community health, particularly for community workers as well as improvement of the social-economic, political structure. This must be culturally and historically relevant for adoption in independent states and hence the schema above. Initially, the thrust of the discussion will arouse fear and anxiety but will slowly lessen the apprehension as efforts between the citizenry and the state reconcile. This, in turn, has the potential for a more realistic perception of life.

Future research studies, particularly in low income (developing) countries, will focus on aspects to deal with a crisis, calamities and disasters (Gottret&Schieber, 2006; Lu, Schneider, Gubbins et al., 2010). Taken together, data from various studies suggest that substantial efforts regarding risk perception and communication should be undertaken in advance of a pandemic (Mizumoto, Yamamoto, & Nishiura, 2013). Age-specific infections and susceptibility means of infection, and pre-existing immunity are significant in both management (prevention) and treatment. Studies conducted in the developing countries must positively identify various aspects associated with the reduced infection, for example, in times of such a crisis. This is because of the unique circumstances such as the absence of a parent or parents and an elder child assuming the role of parent. Such household chores, including the fact that the elder child assumes childcare responsibilities has devastating effects on various calamities such as floods, HIV/AIDS, wars and coups.

The broader health infrastructures in low and middle-income countries are fundamentally significant due to the deficiency in health care services. In essence, people must be made to realise the need to contain an infection such as COVID-19, delay the spread and thus reduce the impact of the pandemic disease. Mostly, people need to be educated, encouraged and enforced in their actions such that they only go out for medical needs, shopping, and for a quick healthy walk and even then when this is necessary. This discussion has demonstrated that during the closure, there are several psychological responses and these have risk perception as well as establish a willingness to accept intervention to the COVID-19 pandemic.

VII. CONCLUSION

COVID-19 is a potentially fatal illness that is transmitted across countries, communities and families. Low-and middle-income countries have deep humanitarian issues, and an outbreak of a pandemic such as COVID-19 is unimaginable. COVID-19 restrictions are neither too soon nor exaggerated, as these countries have severe social-economic-political concerns. Thus, the virus is a social disaster in communities where we stigmatise and discriminate people who are sick as an act of the gods, to imply that they have done something wrong or offended the gods. It is also an economic crisis with unemployment running into informal employment. Nonetheless, the context of developing countries that make the bulk of low- and middle-income countries is that policy lessons including social economic and political considerations such as health from the more developed (high-income countries) do not automatically transfer (Mills & Hsu, 2014) and this is what is most dreaded of COVID-19.

People must learn new ways of coping with general situations as well as in crisis (White, Marston, Shore,&Turner, 2020). Governments in all countries, those with high or low rates of infections and those who may not have detected any cases as yet must develop and implement guidelines to minimize the spread of COVID-19. While the emphasis on the strict application of health measures is crucial in the prevention and management of infection, public participation is quintessential. Thus, it is imperative to raise accurate awareness in the general population as well as protect them from infection, while at the end, those who are infected receive due treatment. In the end, we must psychologically deal with the epidemic now and hereafter.

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The authors declare that there are no conflicts of interest concerning the authorship and publication of this article.

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Notes

The World Health Organization and World Bank use the term **Low-and middle- income countries** to separate high-income countries. Most of the low-income countries are developing nations (countries with a less developed industrial base and low human development index) with low revenue economies. Echoes are apparent with various issues facing high-income countries. However, the intensity such as health in this instance is albeit different.

The term ‘**informal employment**’ and informal economy refers to various work engagements and economic activities by people who are not in ‘formal’ employment (by formal is implied prescribed, strict and recognised terms and conditions).

Dr Geoffrey Wango is a Senior Lecturer in the Department of Psychology, University of Nairobi. He has been an education officer in the Ministry of Education of Kenya and now teaching and researching. His speciality is counselling in developing countries, particularly schools and educational institutions. His main research interests focus on counselling psychology in a cross-cultural context. His publications include counselling, education and related developmental studies. [Emailgwango@uonbi.ac.ke](mailto:emailgwango@uonbi.ac.ke)

Prof. Gidraph Wairire is a professor in the Department of Sociology and Social Work, University of Nairobi. His scholarly work has been published as book chapters and journal articles while other papers have been presented in international conferences and symposia. His main interests include social work theory and practice, counselling, developmental social work, social law, social work with minorities and social action for social change. Emailwairireg@gmail.com.

Dr Charles Kimamo is a Senior Lecturer and Head of the Department of Psychology, University of Nairobi. He specialises in developmental and clinical psychology. His publications include psychology, health, education and related developmental studies. [Emailkimamo charles@uonbi.ac.ke](mailto:charleskimamo@uonbi.ac.ke)

Appendix 1: Individual, family, and interpersonal coping with the COVID-19

Feature	Components	Crisis	Suggested intervention strategies	Time Frame
Children (during School closure)	- Home / House confinement - Restricted exchanges - Child safety and protection	Children at home playing about and mixing up with others	- Television and radio programmes that are child friendly - Television, Internet and Radio teaching and learning broadcasts	Immediately
School reopening	- Children safety and protection - The danger of mass infection	Massive (uncontrolled) Infections	- Intensified testing - Dissemination of COVID-19 information to schools and teachers	Immediately and hereafter
Mass media and social media	Misinformation	Panic, fears and anxiety	- Talks and shows on stress, anxiety and mental health. - Counselling / Mental Health Week.	Continuous
Health and social workers, other professionals (journalists, police and military personnel)	Emotions, psychological burdens, anxiety, burnout, compassionate fatigue, traumatic experiences, PTSD	Stress and burnout leading to frustration and depression	- Clinical and health-based psychological interventions - Health breaks	Continuous
Health care systems	Effective and efficient delivery of health systems	The outbreak of the pandemic in low-and middle-income countries	- Strengthening of health systems from the community to national levels - Clinical and health-based psychological interventions for sufferers, high-risk individuals, and those living in the worst-hit communities	- Immediate - Continuous

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